Shifts in U.S. Merchandise Trade 2010

August 2011
Publication No. 4245

Investigation No. 332-345
United States International Trade Commission

U.S. International Trade Commission

COMMISSIONERS

Deanna Tanner Okun, Chairman
Irving A. Williamson, Vice Chairman
Charlotte R. Lane
Daniel R. Pearson
Shara L. Aranoff
Dean A. Pinkert

Robert B. Koopman
Acting Director of Operations

Karen Laney
Director, Office of Industries

Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436
www.usitc.gov

Shifts in U.S. Merchandise Trade 2010

Investigation No. 332-345

Publication 4245

August 2011

This report was prepared principally by the Office of Industries

Project Leaders

Laura V. Rodriguez
laura.rodriguez@usitc.gov
(202) 205-3499

Mihir Torsekar
mihir.torsekar@usitc.gov
(202) 205-3350

With Assistance from:

Judy Bryant, Brenda Carroll, David Lundy,
and authors from the Office of Industries as noted throughout the report

Content Reviewers:

John Giamalva and James Stamps

Editor:

Peg Hausman

Publication Design and Reproduction Services:

The Office of Publishing

Under the Direction of:

Dennis Rapkins, Chief
Chemicals and Textiles Division

Abbreviations and Acronyms

AGOA	African Growth and Opportunity Act
ATC	Agreement on Textiles and Clothing
APTA	Automotive Products Trade Agreement
AAFA	American Apparel & Footwear Association
AF&PA	American Forest & Paper Association
AMM	American Metal Market
AWEA	American Wind Energy Association
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
CINTRAFOR	Center for International Trade in Forest Products
CIA	Central Intelligence Agency
CBO	Congressional Budget Office
CEA	Council of Economic Advisors
DRAM	dynamic random-access memory
EC	European Commission
EIU	Economist Intelligence Unit
ERS	Economic Research Service
ETBE	ethyl tertiary-butyl ether
EU	European Union
FAS	Foreign Agricultural Service
GATT	General Agreement on Tariffs and Trade
GAMA	General Aviation Manufacturers Association
GDP	gross domestic product
GTIS	Global Trade Information Services
HTSUS	Harmonized Tariff Schedule of the United States
IFDC	International Fertilizer Development Center
IMF	International Monetary Fund
OICA	International Organization of Motor Vehicle Manufacturers
ITA	International Trade Administration
JETRO	Japan External Trade Organization
LME	London Metals Exchange
mt	metric tons
mmt	million metric tons
METI	Ministry of Economy, Trade, and Industry (Japan)
mpps	miscellaneous plastic products
NASS	National Agricultural Statistics Service
NBER	National Bureau of Economic Research
NPU	National Policy Unit (Japan)
NPD	National Purchase Diary
NAFTA	North American Free Trade Agreement
NAICS	North American Industrial Classification System
OTEXA	Office of Textiles and Apparel
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
PAIA	Peruvian Asparagus Importers Association
PGMS	platinum-group metals
PET	polyethylene terephthalate
PVC	polyvinyl chloride resins

SIA	Semiconductor Industry Association
sme	semiconductor manufacturing equipment
sme	square meter equivalent
SUVs	sport-utility vehicles
Korea	The Republic of Korea (South Korea)
TIA	Telecommunications Industry Association
US&FCS	U.S. and Foreign Commercial Service
USDA	U.S. Department of Agriculture
USDOC	U.S. Department of Commerce
USDOE	U.S. Department of Energy
USDOL	U.S. Department of Labor
USDOS	U.S. Department of State
USDOT	U.S. Department of Transportation
USGS	U.S. Geological Survey
USITC	United States International Trade Commission
SEC	United States Securities and Exchange Commission
VDA	*Verband der Automobilindustrie* (German Association of the Automotive Industry)
WASDE	*World Agricultural Supply and Demand Estimates*
WAOB	World Agricultural Outlook Board
WBMS	World Bureau of Metal Statistics
WGC	World Gold Council
WTO	World Trade Organization

Introduction

The annual *Shifts in U.S. Merchandise Trade* report examines trends in merchandise exports and imports using data for more than 250 major industry groups and subgroups identified by the U.S. International Trade Commission (the Commission or USITC).[1] The report contains analysis by international trade analysts of the Commission's Office of Industries, who routinely monitor trade developments in all natural resource, agricultural, and manufacturing industries. The report is divided into three parts:

Part I analyzes overall economic performance and U.S. merchandise trade in 10 merchandise sectors[2] from 2009 to 2010. It summarizes U.S. merchandise trade performance in 2010 and compares it with the results for 2009, a year characterized by a significant economic downturn. Trade tables showing activity for 2006 through 2010 are also included. The discussions of the individual merchandise sectors include data showing changes in U.S. exports, imports, and trade balances broken down by sectors, industry groups (and in some cases subgroups), and U.S. trading partners.

Part II examines the shifts in U.S. trade with each of the top five U.S. trading partners—Canada, China, the European Union (EU), Mexico, and Japan. Also examined are shifts in trade with Brazil, India, Russia, and the Republic of Korea (Korea)—U.S. trading partners that continue to grow in significance. Summary tables show the important shifts in U.S. bilateral trade and highlight leading changes in industry groups for each of the major trading partners.

Part III surveys each of the 10 merchandise sectors, identifying significant shifts in trade within each sector. Each sector chapter includes a summary table of statistics on industry groups or subgroups in the sector, showing absolute and percentage changes in bilateral trade for a year-on-year comparison of 2009 and 2010.[3] Additional chapters discuss shifts in 17 specific industry groups in more depth. These groups were selected primarily because trade in the goods they produce shifted by more than $2.0 billion (whether positive or negative) and by more than 20 percent, by value between 2009 and 2010.

A new feature in this year's report is a brief discussion of changing employment levels in four merchandise sectors that have been influenced by shifts in trade in recent years, especially 2009–10. These sectors are electronic products, forest products, machinery, and textiles and apparel.

[1] In this report, the Commission measures the U.S. trade balance by subtracting U.S. imports for consumption from U.S. domestic exports. Although this method does not match the balance of payments, it is the most relevant measure for the report because it presents the actual flow of merchandise.

[2] The 10 sectors are agricultural products; chemicals and related products; electronic products; energy-related products; forest products; machinery; minerals and metals; miscellaneous manufactures; textiles, apparel, and footwear; and transportation equipment.

[3] For trade-monitoring purposes, the USITC assigns U.S. Harmonized Tariff Schedule (HTS) import headings/subheadings, and the corresponding Schedule B export categories, to industry/commodity groups and subgroups. These groups are aggregated into the 10 sectors analyzed in this report.

Part I: U.S. Merchandise Trade and Overall Economic Performance: 2009–10

Overall Economic Performance

Cathy Jabara
(202) 205-3309
cathy.jabara@usitc.gov

From 2009–10, the value of U.S. domestic merchandise exports increased by 20 percent to $1,122.1 billion and U.S. imports for consumption increased by 23 percent to $1,898.6 billion. The associated trade deficit increased as well, rising by $164.1 billion (27 percent) to $776.5 billion (table US.1). The upturn of the world economy, both in the United States and in other countries, contributed to the increase in U.S. trade in 2010 as U.S. demand for imports and foreign demand for U.S. exports expanded relative to 2009.[1] Higher prices for crude petroleum and nonferrous metals also significantly contributed to the overall increase in the value of exports and imports.

The U.S. economy substantially improved in 2010 as both business and consumer spending grew. U.S. real gross domestic product (GDP) rose by 2.9 percent in 2010, compared to a decline of 2.6 percent in 2009.[2] The growth in real U.S. GDP in 2010 primarily reflected increases in private inventories, consumer spending, nonresidential fixed investment (such as equipment and software), federal government spending, and net exports.[3] Despite these gains in real GDP, however, the average U.S. unemployment rate rose to 9.6 percent in 2010 compared to 9.3 percent in 2009.[4]

An important factor contributing to the growth in U.S. merchandise exports was increased foreign demand due to rising incomes in many U.S. major trading partners. Globally, real GDP grew on average by 5.0 percent in 2010, compared to negative growth (–0.6 percent) in 2009.[5] Real income growth for many of the United States' major export partners—including Canada, the EU, Mexico, and Japan—was positive in 2010, ranging from 1.8 percent in the EU to 5.2 percent in Mexico, compared to negative real GDP growth rates in 2009.[6] GDP growth was even higher in developing countries in Asia (9.3 percent on average) and in Brazil (7.5 percent). Reflecting these increases in real GDP and foreign demand, Taiwan, Brazil, Korea, and China accounted for the largest percentage growth rates for U.S. exports, by country.

The depreciation of the value of the U.S. dollar against the currencies of major foreign trading partners also contributed to the growth of U.S. exports in 2010, particularly in the last half of the year. From 2009 to 2010, the average trade-weighted value of the dollar measured against the currencies of a broad group of U.S. trading partners fell by 3.5 percent, thereby helping to improve the global competitiveness of U.S.-made goods.[7] The average trade-weighted value of the dollar rose in early 2010, but then fell steadily in the last two quarters of the year.[8] The overall decline in the value of the dollar also contributed toward making imports more costly.

---

[1] CEA, *2011 Economic Report of the President*, 2011, 81.
[2] BEA, "Gross Domestic Product: Fourth Quarter and Annual 2010 (Second Estimate)," February 25, 2011, 3.
[3] BEA, "Gross Domestic Product: Fourth Quarter and Annual 2010 (Second Estimate)," February 25, 2011, 3.
[4] BLS, Labor Force Statistics from the Current Population Survey (accessed March 15, 2011).
[5] CEA, *2011 Economic Report of the President,* table B112, 2011
[6] CEA, *2011 Economic Report of the President,* table B112, 2011.
[7] CEA, *2011 Economic Report of the President,* table B110, 2011.
[8] CEA, *2011 Economic Report of the President*, table B110, 2011.

TABLE US.1 U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	76,924	96,041	121,077	103,184	121,473	18,290	17.7
Forest products	30,156	33,088	35,362	30,489	36,381	5,892	19.3
Chemicals and related products	149,848	169,409	189,784	165,948	197,026	31,078	18.7
Energy-related products	38,999	46,674	81,737	59,827	85,468	25,641	42.9
Textiles and apparel	18,088	17,535	17,805	14,653	17,350	2,697	18.4
Footwear	573	578	673	620	728	107	17.3
Minerals and metals	82,944	100,260	119,753	84,351	109,910	25,560	30.3
Machinery	92,438	100,235	106,766	85,410	104,361	18,951	22.2
Transportation equipment	218,773	250,475	257,516	194,082	222,403	28,321	14.6
Electronic products	169,381	172,502	174,810	142,955	159,850	16,896	11.8
Miscellaneous manufactures	22,438	25,954	27,821	24,765	25,542	777	3.1
Special provisions	28,925	33,607	36,716	30,460	41,638	11,178	36.7
Total	929,486	1,046,358	1,169,821	936,745	1,122,131	185,386	19.8
U.S. imports of merchandise for consumption:							
Agricultural products	81,456	88,136	96,238	87,301	97,572	10,271	11.8
Forest products	50,416	46,561	42,291	31,511	35,749	4,237	13.4
Chemicals and related products	179,410	194,331	223,492	182,515	218,020	35,505	19.5
Energy-related products	319,168	344,829	472,325	260,878	338,184	77,306	29.6
Textiles and apparel	104,563	107,678	104,329	90,581	104,199	13,618	15.0
Footwear	19,038	19,270	19,451	17,666	20,710	3,044	17.2
Minerals and metals	169,510	174,207	184,994	117,025	156,199	39,174	33.5
Machinery	130,809	138,676	142,098	110,062	130,470	20,408	18.5
Transportation equipment	304,262	310,378	288,697	199,808	266,946	67,138	33.6
Electronic products	332,485	353,009	351,622	311,419	377,615	66,196	21.3
Miscellaneous manufactures	94,099	103,905	100,837	84,437	97,346	12,909	15.3
Special provisions	59,837	61,882	64,109	55,960	55,600	-360	-0.6
Total	1,845,053	1,942,863	2,090,483	1,549,163	1,898,610	349,447	22.6
U.S. merchandise trade balance:							
Agricultural products	-4,532	7,906	24,839	15,883	23,901	8,018	50.5
Forest products	-20,260	-13,473	-6,930	-1,022	632	1,654	[a]
Chemicals and related products	-29,562	-24,923	-33,708	-16,567	-20,994	-4,427	-26.7
Energy-related products	-280,170	-298,155	-390,588	-201,051	-252,716	-51,666	-25.7
Textiles and apparel	-86,476	-90,143	-86,523	-75,928	-86,849	-10,921	-14.4
Footwear	-18,465	-18,692	-18,778	-17,046	-19,982	-2,937	-17.2
Minerals and metals	-86,567	-73,947	-65,240	-32,674	-46,288	-13,614	-41.7
Machinery	-38,370	-38,441	-35,331	-24,652	-26,109	-1,457	-5.9
Transportation equipment	-85,489	-59,903	-31,181	-5,726	-44,543	-38,817	-677.9
Electronic products	-163,105	-180,507	-176,812	-168,465	-217,765	-49,301	-29.3
Miscellaneous manufactures	-71,661	-77,951	-73,015	-59,672	-71,804	-12,132	-20.3
Special provisions	-30,912	-28,275	-27,393	-25,500	-13,962	11,538	45.2
Total	-915,567	-896,505	-920,663	-612,419	-776,479	-164,061	-26.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

Growth in U.S. merchandise exports was led by energy-related products, which grew by 43 percent. This rise in value benefited from higher prices for crude petroleum and other energy-related products. Similarly, as noted earlier, prices for nonferrous metals also increased, boosting the value of U.S. exports of those products.

U.S. merchandise imports grew at a faster rate than exports in 2010, reflecting both the upturn in the U.S. economy and the increase in crude petroleum prices in 2010, which resulted in a jump in the value of U.S. imports of energy-related products. The value of such imports rose by 29.6 percent in 2010, as the world average price of crude petroleum increased from $56.35 per barrel to $73.80 per barrel.[9] Also, U.S. imports of non-energy-related merchandise grew by 21.1 percent, led by increased imports of transportation equipment (33.6 percent) and minerals and metals (33.5 percent).[10] In particular, the U.S. import price index for nonferrous metals rose by 36.9 percent on average from 2009 to 2010.[11]

[9] Official statistics of the U.S. Department of Energy. See the chapter on energy-related products for more information.

[10] Based on official statistics of the U.S. Department of Commerce.

[11] BLS, End-use Import Price Indexes: Nonferrous Metals—Crude (accessed March 15, 2011).

U.S. Trade by Industry, Sector, and Selected Trading Partners[1]

Mihir P. Torsekar
(202) 205-3350
mihir.torsekar@usitc.gov

U.S. Trade Balance:

In 2010, almost all U.S. industries and sectors—agricultural and forest products excepted—registered a trade deficit, fueling a 27 percent increase in the overall merchandise deficit to $164.1 billion (see table US.1 in previous section).[2] The most significant deficits occurred in the following three sectors: energy-related products, electronic products, and transportation equipment.

The energy-related products sector registered both the largest deficit ($252.7 billion) and the largest absolute deficit change (an increase of $51.7 billion), as price rises and growing global consumption of crude petroleum increased the value of merchandise trade in this sector. Electronic products recorded the second largest deficit ($217.8 billion) as well as the second-largest absolute deficit change (an increase of $49.3 billion), reflecting the resumption of capital investments and greater U.S. consumption of various portable electronic devices. The transportation equipment sector's trade deficit increased by 678 percent ($38.8 billion)—the third–largest absolute deficit change and the most significant deficit percentage shift—as imports of motor vehicles rebounded in response to the expanding domestic economy.[3]

U.S. Exports

In 2010, U.S. exports increased in all merchandise sectors, rising by a combined total of $185.4 billion (20 percent) to $1,122.1 billion. The greatest absolute increase occurred in the chemicals and related products sector, as exports rose by $31.1 billion (19 percent). One-quarter of this sectoral increase was driven by gains in two product groups: certain organic chemicals and miscellaneous plastic products, which collectively rose by $7.8 billion (table US.2). Exports grew due to greater foreign demand for these products as a result of government policies in key foreign markets encouraging the adoption of renewable fuels[4] and increased joint venture projects in key Asian economies.[5]

[1] Each of the 10 industry sectors is analyzed in a separate chapter in part III of this report. They are agricultural products; chemicals and related products; electronic products; energy-related products; forest products; machinery; minerals and metals; miscellaneous manufactures; textiles, apparel, and footwear; and transportation equipment.

[2] In particular, 9 of the 12 reported merchandise sectors recorded larger deficits from the previous year: chemicals and related products; energy-related products; textiles and apparel; footwear; minerals and metals; machinery; transportation equipment; electronic products; and miscellaneous manufactures.

[3] According to the National Bureau of Economic Research, the U.S. economic recession began December 2007 and ended in June 2009. NBER, "Business Cycle Dating Committee," September 20, 2010.

[4] USITC, *Industrial Biotechnology*, 2008, 4-10 and 4-11.

[5] See Bregar, "U.S. Firms Should Target Growing Asian Nations," March 24, 2010.

TABLE US.2 All merchandise sectors: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Petroleum products (EP005)	26,407	31,484	58,765	42,048	61,131	19,083	45.4
Motor vehicles (TE009)	44,437	52,739	56,898	35,963	48,940	12,977	36.1
Precious metals and non-numismatic coins (MM020)	13,360	19,289	26,534	20,699	28,033	7,334	35.4
Semiconductors and integrated circuits (EL015)	37,227	35,487	35,809	25,058	31,267	6,209	24.8
Chemicals and related products:							
Certain organic chemicals (CH006)	14,263	15,796	16,360	13,339	17,679	4,341	32.5
Miscellaneous plastic products (CH033)	17,570	19,218	20,189	17,719	21,235	3,516	19.8
Decreases:							
Aircraft, spacecraft, and related equipment (TE013)	64,374	73,406	69,516	77,700	73,949	-3,750	-4.8
Works of art and miscellaneous manufactured goods (MS017)	3,837	5,011	6,064	5,169	3,680	-1,489	-28.8
Crude petroleum (EP004)	852	993	2,296	1,620	1,384	-236	-14.5
All other	707,161	792,934	877,389	697,431	834,832	137,401	19.7
Total	929,488	1,046,358	1,169,821	936,745	1,122,131	185,384	19.8
U.S. IMPORTS:							
Increases:							
Energy-related products:							
Crude petroleum (EP004)	171,243	186,476	274,950	150,809	196,862	46,053	30.5
Petroleum products (EP005)	89,448	98,577	126,441	72,581	97,889	25,308	34.9
Motor vehicles (TE009)	159,537	158,895	142,541	94,348	132,471	38,123	40.4
Electronic products:							
Telecommunications equipment (EL002)	53,318	60,699	64,331	60,299	74,065	13,767	22.8
Semiconductors and integrated circuits (EL015)	27,022	26,259	25,298	21,190	29,134	7,945	37.5
Steel mill products (MM025)	31,500	29,204	36,870	16,995	22,928	5,933	34.9
Decreases:							
Powersport vehicles (TE011)	5,870	5,208	5,343	2,988	2,317	-671	-22.4
Boilers, turbines, and related machinery (MT022)	1,001	1,542	1,773	1,899	1,614	-285	-15.0
All other	1,306,115	1,376,003	1,412,936	1,128,055	1,341,329	213,274	18.9
Total	1,845,053	1,942,863	2,090,483	1,549,163	1,898,610	349,445	22.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

Transportation equipment exports, which grew by $28.3 billion (15 percent) to $222.4 billion, recorded the second highest absolute increase in exports and represented the largest export sector. Much of this growth was influenced by increased sales of motor vehicles, which rose by $13 billion (36 percent). The third largest reported absolute increase—and greatest percentage shift—occurred in the energy-related products merchandise sector, which grew by $25.6 billion (43 percent) to $85.5 billion. Price increases and refinery shutdowns in Brazil and Mexico contributed to increases in both the value and the quantity of U.S. exports of natural gas, petroleum, and coal, coke, and other energy-related products.

U.S. Imports

In 2010, the value of U.S. imports rose by 23 percent, with the largest absolute increases occurring in energy-related products ($77.3 billion), transportation equipment ($67.1 billion), and electronic products ($66.2 billion). Within the energy-related sector, price and quantity increases in imports of crude petroleum and petroleum products, along with price increases in imports of natural gas and components, fueled the majority of the rise in U.S. imports. Several factors accounted for this increase, including the global economic recovery,[6] which spurred higher commodity prices; supply disruptions in Nigeria, a leading supplier of crude petroleum; and heightened consumption of crude petroleum in China, India, and Brazil.[7] Canada remained the leading source of U.S. imports of energy-related products, representing 28 percent of the total U.S. trade deficit in these products.

Increased U.S. imports of transportation equipment—especially motor vehicles—principally stemmed from the rebounding U.S. economy in 2010, which translated into greater consumer access to financing for durable consumer goods, such as passenger vehicles.[8] Greater domestic consumption of motor vehicles accounted for 57 percent of the import growth in this sector. Canada, Japan, and Mexico remained the largest suppliers to the U.S. market, together accounting for 64 percent of 2010 imports.

Within the electronic products sector, imports of three product groupings increased significantly, collectively growing by $45.2 billion: computers, peripherals, and parts (up 25 percent); telecommunications equipment (up 23 percent); and semiconductors and integrated circuits (up 38 percent). Principal drivers of the growth across these products include the resumption of capital spending, which had been postponed during the recession;[9] increased consumer demand for mobile electronic devices, such as tablet computers; [10] and investment in mobile and fixed broadband infrastructure to accommodate greater use of smartphones and tablet computers in particular.[11] Increased U.S. imports of these goods reflect the growing importance of Chinese production and assembly; most electronic products are made or assembled in China, through either contract manufacturing or indigenous companies.[12]

[6] IMF, "World Economic Outlook," October 2010.
[7] *Oil & Gas Journal*, "Worldwide Report," December 6, 2010.
[8] USDOC, ITA, *The Road Ahead 2010,* 2010; USDOC, ITA, *The Road Ahead 2011,* 2011.
[9] EIU, "World: Telecoms and Technology Outlook," September 22, 2010.
[10] EIU, "USA: Telecoms and Technology Report," February 1, 2011.
[11] TIA, *ICT Market Review and Forecast*, 2011.
[12] See the "Telecommunications Equipment" section in this report for a more detailed discussion.

Significant Shifts in U.S. Bilateral/Multilateral Trade

In 2010, there was an increase in the trade deficits between the United States and its five leading trading partners, including the European Union (EU) (up $21.8 billion), Canada (up $16.7 billion), China (up $47.9 billion), Mexico (up $26.6 billion), and Japan (up $15.3 billion) (table US.3). Together, these economies accounted for 78 percent of the total U.S. trade deficit, maintaining their relative positions from 2009 to 2010. The increase in these deficits in 2010 reflects the extent to which the improving domestic economy[13] bolstered purchases of goods produced in these economies—especially China.

In 2010, China remained the United States' single largest source of imports by value, expanding the already sizable trade deficit between the two countries; the $278.3 billion deficit with China was the largest one with any U.S. trading partner. China is a leading manufacturing location for an increasing number of mass-produced goods, including various electronic products.[14] The EU is the United States' largest two-way trading partner, accounting for almost 20 percent of total U.S. merchandise trade in 2010, while Canada remained the United States' largest single-country trading partner. The trade deficit with the former was principally driven by increased U.S. imports of transportation equipment (motor vehicles) and chemicals and related products (petroleum products) though imports increased across virtually all sectors. The U.S. trade deficit with Canada was likewise heavily influenced by increased U.S. imports of energy-related products and transportation equipment. Price increases for petroleum products and favorable credit conditions associated with the improving U.S. economy were the likely causes for increased imports in these sectors.

[13] According to the National Bureau of Economic Research, the U.S. recession began December 2007 and ended in June 2009. NBER, "Business Cycle Dating Committee," September 20, 2010.

[14] EIU, *China: Country Profile,* 2009, 25.

TABLE US.3 All merchandise sectors: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	198,226	213,119	222,424	171,695	205,956	34,260	20.0
China	51,624	61,013	67,166	65,124	85,746	20,622	31.7
Mexico	114,562	119,381	131,507	105,718	131,602	25,884	24.5
Japan	55,596	58,096	61,435	47,074	55,727	8,653	18.4
Germany	37,850	44,294	50,150	40,229	44,391	4,162	10.3
United Kingdom	41,335	45,436	49,061	41,990	44,005	2,015	4.8
Korea	30,794	33,012	33,074	27,074	36,836	9,763	36.1
France	22,590	25,784	26,748	24,367	24,421	54	0.2
Taiwan	21,376	24,541	23,628	16,712	23,904	7,192	43.0
Brazil	16,977	21,684	29,027	22,135	30,157	8,022	36.2
All other	338,555	399,998	475,599	374,627	439,386	64,759	17.3
Total	929,486	1,046,358	1,169,819	936,745	1,122,131	185,386	19.8
EU-27	197,281	226,252	251,196	202,392	217,329	14,937	7.4
OPEC	39,454	45,819	57,645	46,750	50,050	3,300	7.1
Latin America	196,723	218,553	258,616	205,299	256,600	51,301	25.0
Asia	237,021	266,513	284,302	238,447	307,077	68,630	28.8
Sub-Saharan Africa	11,709	13,860	18,008	14,638	16,437	1,799	12.3
U.S. imports for consumption:							
Canada	303,034	312,505	334,840	224,584	275,536	50,952	22.7
China	287,052	323,085	337,504	295,545	364,047	68,503	23.2
Mexico	197,056	210,159	216,328	176,309	228,824	52,515	29.8
Japan	148,071	144,928	139,112	96,002	119,938	23,936	24.9
Germany	87,756	94,416	95,828	69,790	80,886	11,096	15.9
United Kingdom	53,502	56,873	58,419	47,019	49,293	2,273	4.8
Korea	44,714	45,368	46,687	38,770	47,914	9,144	23.6
France	36,837	41,237	43,372	33,961	38,241	4,280	12.6
Taiwan	38,086	38,052	36,204	28,074	35,568	7,494	26.7
Brazil	26,169	25,018	30,061	19,612	23,402	3,790	19.3
All other	622,777	651,222	752,128	519,498	634,963	115,464	22.2
Total	1,845,053	1,942,863	2,090,483	1,549,163	1,898,612	349,447	22.6
EU-27	330,898	352,189	363,667	278,104	314,880	36,776	13.2
OPEC	147,948	161,743	225,186	109,883	147,136	37,253	33.9
Latin America	329,153	340,983	374,538	283,049	358,048	74,999	26.5
Asia	668,735	704,436	711,690	583,910	718,322	134,413	23.0
Sub-Saharan Africa	58,762	66,889	86,082	47,159	64,351	17,192	36.5

See footnote(s) at end of table.

TABLE US.3 All merchandise sectors: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-104,808	-99,386	-112,415	-52,889	-69,580	-16,692	-31.6
China	-235,428	-262,072	-270,338	-230,421	-278,301	-47,881	-20.8
Mexico	-82,493	-90,778	-84,821	-70,591	-97,222	-26,631	-37.7
Japan	-92,475	-86,832	-77,677	-48,928	-64,211	-15,284	-31.2
Germany	-49,907	-50,122	-45,677	-29,561	-36,495	-6,934	-23.5
United Kingdom	-12,166	-11,437	-9,357	-5,030	-5,288	-258	5.1
Korea	-13,920	-12,357	-13,613	-11,696	-11,077	619	-5.3
France	-14,247	-15,452	-16,624	-9,593	-13,819	-4,226	-44.0
Taiwan	-16,709	-13,511	-12,576	-11,362	-11,665	-302	-2.7
Brazil	-9,192	-3,334	-1,033	2,523	6,755	4,232	167.7
All other	-284,222	-251,224	-276,529	-144,871	-195,576	-50,705	-35.0
Total	-915,569	-896,505	-920,664	-612,419	-776,481	-164,061	-26.8
EU-27	-133,617	-125,937	-112,470	-75,712	-97,551	-21,839	-28.8
OPEC	-108,494	-115,924	-167,541	-63,133	-97,086	-33,953	-53.8
Latin America	-132,430	-122,430	-115,922	-77,750	-101,448	-23,698	-30.5
Asia	-431,714	-437,923	-427,388	-345,463	-411,246	-65,782	-19.0
Sub-Saharan Africa	-47,053	-53,028	-68,074	-32,521	-47,915	-15,394	-47.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions.

Bibliography: U.S. Merchandise Trade and Overall Performance

Bureau of Labor Statistics (BLS). Bureau of Economic Analysis (BEA). EA End-use Import Price Indexes: Nonferrous Metals—Crude. http://www.bls.gov/mxp/home.htm#data (accessed March 15, 2011).

Bregar, Bill. "U.S. Firms Should Target Growing Asian Nations." *Plastics News*, March 24, 2010.

Council of Economic Advisors (CEA). *2011 Economic Report of the President.* Washington, D.C.: United States Government Printing Office, February 2011. http://www.whitehouse.gov/administration/eop/cea/economic-report-of-the-President.

Economist Intelligence Unit (EIU). *China: Country Profile.* London: Economist Intelligence Unit, 2009.

———. "United States of America: Telecoms and Technology Report." *Industry Briefing and Forecasts*, February 1, 2011.

———. "World: Telecoms and Technology Outlook." *Industry Briefing and Forecasts*, September 22, 2010.

International Monetary Fund (IMF). *World Economic Outlook: Recovery, Risk, and Rebalancing*. Washington, DC: IMF, 2010. http://www.imf.org/external/pubs/ft/weo/2010/02/index.htm.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Oil & Gas Journal. "Worldwide Report," December 6, 2010.

Telecommunications Industry Association (TIA). *TIA's 2011 ICT Market Review and Forecast,* 2011.

U.S. Bureau of Labor Statistics (BLS). Labor Force Statistics from the Current Population Survey: Employment Status of the Civilian Noninstitutional Population, 1940s to Date. http://www.bls.gov/cps/tables.htm#empstat (accessed March 15, 2011).

U.S. Department of Commerce (USDOC). BEA. "Gross Domestic Product: Fourth Quarter and Annual 2010 (Second Estimate)." BEA News release 11-07, February 25, 2011. http://www.esa.doc.gov/sites/default/files/ei/documents/2011/February/gross_domestic_product_foruth_quarter_2010_second_estimate.pdf (accessed March 8, 2011).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). *The Road Ahead 2010,* 2010. http://trade.gov/wcm/groups/internet/documents/web_content/auto_report_roadahead2010.pdf.

———. *The Road Ahead 2011*, 2011. http://trade.gov/static/2011RApt1FINAL.pdf.

U.S. International Trade Commission (USITC). *Industrial Biotechnology: Development and Adoption by the U.S. Chemical and Biofuel Industries*. USITC Publication 4020. Washington, DC: USITC, 2008. http://www.usitc.gov/publications/332/pub4020.pdf (accessed March 24, 2011).

Part II: Bilateral Trade

This section analyzes shifts in trade between the United States and its five leading trading partners (based on total trade)—Canada, China, the European Union, Mexico, and Japan. Trade with Brazil, India, Russia, and Korea are also examined in light of their growing importance as trading partners. Trading partners are listed in alphabetical order.

Brazil

Ralph Watkins
(202) 205-3492
ralph.watkins@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $4.2 billion (168 percent) to $6.8 billion
U.S. exports: Increased by $8.0 billion (36 percent) to $30.2 billion
U.S. imports: Increased by $3.8 billion (19 percent) to $23.4 billion

U.S. merchandise trade with Brazil increased by $11.8 billion (28 percent) to $53.6 billion in 2010. U.S. exports of refined petroleum products, coal, and chemicals to feed Brazil's rapidly expanding industrial sector, accounted for most of the growth in trade, while U.S. imports of crude petroleum and intermediate goods from Brazil targeted U.S. industrial consumption. The U.S. trade surplus with Brazil grew substantially as U.S. exports benefited from strong import demand stemming from Brazil's 7.7 percent GDP growth in 2010 (table BR.1)[1]. U.S. exports to Brazil also likely benefited from the more than 30 percent appreciation of the Brazilian real against the U.S. dollar during 2008–10.[2]

U.S. Exports

The $8.0 billion (36 percent) increase in U.S. exports to Brazil in 2010 to $30.2 billion was commensurate with the trend in Brazil's total imports, which grew by $54.0 billion (42 percent) to $181.6 billion.[3] The United States was Brazil's leading supplier of imports in 2010, accounting for 15 percent of total imports, followed closely by China, with 14 percent.[4]

Although U.S. exports to Brazil increased in all 12 industry sectors in 2010, energy-related products and chemicals and related products each accounted for over one-quarter of the total increase. The $1.8 billion (171 percent) rise in exports of petroleum products to $2.8 billion accounted for 22 percent of the growth in total U.S. exports to Brazil that year (table BR.2). U.S. exports of petroleum products to Brazil rose from 20.0 million barrels in 2009 to 44.5 million barrels in 2010.[5] The increase was almost completely

[1] Following a 0.6 percent decline in 2009, Brazil's GDP rebounded with a growth rate of nearly 8 percent in 2010. Brazil's GDP growth averaged over 4 percent annually during 2002–10. Meyer, *Brazil-U.S. Relations*, February 9, 2011, 6, 8.

[2] Steep inflows of foreign investment in Brazil have driven up the value of the Brazilian real relative to the U.S. dollar. Monteiro, "Brazil's Trade Woes," February 2011, 13; Benson, "Geithner Urges Brazil to Lobby China on Yuan: Source," February 2, 2011.

[3] GTIS, Global Trade Atlas Database (accessed March 24, 2011).

[4] Brazil's imports from China grew even faster than its imports from the United States, by $9.7 billion (61 percent) to $25.7 billion. Whereas the growth in U.S. exports to Brazil consisted chiefly of energy-related products and intermediate goods, Brazil's growth in imports from China consisted predominantly of telephone equipment, television parts, and consumer electronics. Both the United States and China experienced strong growth in exports of computer equipment and parts, air conditioning equipment, and valves and other oil drilling equipment to Brazil in 2010. Domestic consumption in Brazil increased enough in 2010 that most Brazilian manufacturing sectors expanded production, despite a sharp increase in Brazilian imports and loss of domestic market share to imports, particularly from the United States and China. Monteiro, "Brazil's Trade Woes," February 2011, 11, 13.

[5] Official statistics of the U.S. Department of Energy.

TABLE BR.1 Brazil: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise							
Agricultural products	265	394	646	349	564	216	61.6
Forest products	251	329	409	359	445	86	23.9
Chemicals and related products	4,399	5,778	7,381	5,714	7,815	2,102	36.8
Energy-related products	891	1,093	2,381	2,022	4,368	2,346	116.0
Textiles and apparel	169	195	244	188	246	58	30.9
Footwear	2	3	4	1	2	(a)	24.8
Minerals and metals	517	718	1,227	784	1,140	356	45.4
Machinery	1,455	1,781	2,660	2,143	3,061	917	42.8
Transportation equipment	5,656	7,248	9,108	6,407	7,205	799	12.5
Electronic products	2,923	3,534	4,213	3,474	4,325	851	24.5
Miscellaneous manufactures	129	154	191	184	218	34	18.4
Special provisions	320	458	563	510	768	258	50.6
Total	16,977	21,684	29,027	22,135	30,157	8,022	36.2
U.S. imports of merchandise for consumption							
Agricultural products	3,451	3,222	3,204	2,632	3,201	568	21.6
Forest products	2,365	2,064	1,928	1,300	1,790	490	37.7
Chemicals and related products	1,567	1,976	2,374	1,883	2,705	822	43.6
Energy-related products	3,582	3,950	8,345	6,118	7,000	882	14.4
Textiles and apparel	455	469	366	259	238	-21	-8.1
Footwear	896	758	518	382	360	-23	-5.9
Minerals and metals	5,849	5,249	5,496	2,458	3,346	888	36.1
Machinery	1,459	1,705	1,387	969	1,062	93	9.6
Transportation equipment	4,485	4,126	4,898	2,066	2,221	155	7.5
Electronic products	770	479	428	321	305	-16	-5.0
Miscellaneous manufactures	533	520	429	387	376	-11	-2.8
Special provisions	759	501	688	836	798	-38	-4.5
Total	26,171	25,018	30,061	19,612	23,402	3,790	19.3
U.S. merchandise trade balance							
Agricultural products	-3,186	-2,827	-2,558	-2,284	-2,637	-353	-15.4
Forest products	-2,113	-1,736	-1,519	-941	-1,345	-404	-43.0
Chemicals and related products	2,832	3,802	5,007	3,831	5,110	1,280	33.4
Energy-related products	-2,690	-2,857	-5,965	-4,096	-2,633	1,464	35.7
Textiles and apparel	-286	-274	-122	-71	8	79	(b)
Footwear	-894	-755	-514	-381	-358	23	6.0
Minerals and metals	-5,332	-4,531	-4,268	-1,673	-2,206	-533	-31.8
Machinery	-4	76	1,273	1,174	1,999	825	70.3
Transportation equipment	1,172	3,122	4,210	4,341	4,985	644	14.8
Electronic products	2,154	3,055	3,785	3,153	4,020	867	27.5
Miscellaneous manufactures	-404	-366	-238	-203	-158	45	22.0
Special provisions	-439	-43	-125	-326	-30	296	90.7
Total	-9,194	-3,334	-1,033	2,523	6,755	4,232	167.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

TABLE BR.2 Brazil: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Energy-related products:							
Petroleum products (EP005)	443	491	1,413	1,026	2,778	1,752	170.8
Coal, coke, and related chemical products (EP003)	444	593	951	924	1,332	409	44.2
Chemicals and related products:							
Medicinal chemicals (CH019)	665	759	917	917	1,313	395	43.1
Certain organic chemicals (CH006)	542	742	824	662	1,001	339	51.3
Organic commodity chemicals (CH004)	251	330	449	131	354	223	170.2
Other plastics in primary forms (CH030)	545	652	802	642	847	205	32.0
Transportation equipment:							
Forklift trucks and similar industrial vehicles (TE003)	45	85	198	70	269	199	284.3
Internal combustion piston engines, other than for aircraft (TE002)	192	265	342	234	420	187	79.5
Certain motor-vehicle parts (TE010)	365	416	425	263	440	177	67.2
Farm and garden machinery and equipment (MT009)	166	222	326	159	347	188	118.1
All other	13,320	17,128	22,381	17,107	21,054	3,948	23.1
Total	16,977	21,684	29,027	22,135	30,155	8,020	36.2
U.S. IMPORTS:							
Increases:							
Crude petroleum (EP004)	2,546	2,682	6,522	4,661	5,188	527	11.3
Wood pulp and wastepaper (FP009)	578	682	858	521	952	431	82.7
Coffee and tea (AG028)	603	701	834	833	1,170	337	40.4
All other	22,442	20,952	21,847	13,597	16,092	2,495	18.3
Total	26,169	25,018	30,061	19,612	23,402	3,790	19.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

made up of exports of distillate fuel oils used for industrial purposes. The increase in U.S. exports of distillate fuel oils reflected Brazil's response to shutdowns due to maintenance requirements in several Brazilian refineries during 2010.[6] The refinery shutdowns caused a shortfall in domestic production of distillates in Brazil and the need to expand the supply of refined petroleum imports to meet growing demand, particularly among industrial customers. The United States was the leading supplier of refined petroleum products to Brazil in 2010, followed by Algeria and India.[7]

U.S. exports of coal, coke, and related chemical products rose by $409 million (44 percent) to $1.3 billion, with coal accounting for the bulk of the increase. Exports of coal and other carbonaceous materials to Brazil increased from 7.4 million short tons in 2009 to 8.3 million short tons in 2010[8] in response to increased demand for coking coals for industrial uses, such as steel production. The United States is one of the world's leading exporters of such coals, and the U.S. product is the highest quality available. The United States supplied 39 percent of Brazil's imports of such coal in 2010, while Australia supplied 33 percent.[9]

U.S. exports of medicinal chemicals to Brazil rose by $395 million (43 percent) in 2010 to $1.3 billion. The largest increases were in vaccines for human use and antidepressants. In response to the H1N1 swine flu cases in 2009, the Ministry of Health in Brazil launched a campaign in 2010 for higher vaccination rates for children and adults,[10] which likely led to an increase in U.S. exports of the flu vaccine to Brazil.

U.S. exports of certain organic chemicals to Brazil rose by $339 million (51 percent) to $1.0 billion in 2010. The largest increase was in ethylene glycol, which is used to produce polyester fiber and polyethylene terephthalate (PET) resin, the latter being used to manufacture plastic articles. Automobile production in Brazil in 2010 rose sharply, which led to increased demand for automotive plastic parts made from PET resin.[11] Expanded motor vehicle production in Brazil also resulted in increased U.S. exports to Brazil in 2010 of internal combustion piston engines (up by $187 million or 80 percent to $420 million) and of certain motor vehicle parts (up by $177 million or 67 percent to $440 million).

Growth in both the manufacturing and agricultural sectors[12] in Brazil, combined with increased activity in warehousing and distribution to meet the needs of rising consumption in Brazil, boosted demand for machinery and equipment related to such activities.[13] Consequently, U.S. exports to Brazil in 2010 of forklift trucks and similar industrial vehicles rose by $199 million (283 percent) to $269 million, and U.S. exports of farm and garden machinery and equipment increased by $188 million (118 percent) to $347 million.

[6] Ellsworth, "Petrobras Plans Two More Refinery Shutdowns in 2010," August 18, 2010.

[7] Nigeria and Saudi Arabia were the leading suppliers of crude petroleum to Brazil in 2010. GTIS, Global Trade Atlas Database (accessed March 24, 2011).

[8] Official statistics of the U.S. Department of Energy.

[9] GTIS, Global Trade Atlas database (accessed March 24, 2011).

[10] "Brazil to Launch Massive Swine Flu Vaccination," March 4, 2010.

[11] Business Monitor International, "Petrochemicals Report," August 2010, 6.

[12] For a discussion of expansion in Brazil's agricultural sector, see Contini and Riefschnieder, "Agribusiness: Innovation and Competitiveness in Brazil," 2009, 87.

[13] Wheatley, "Infrastructure Investment Puts Brazil on the Road to Recovery," June 28, 2010.

U.S. Imports

The depreciation of the dollar against the real contributed to slower growth in the value of U.S. imports from Brazil.[14] The largest increases in U.S. imports from Brazil in 2010 were in crude petroleum, wood pulp and wastepaper, and coffee and tea (table BR.2).

Higher prices for crude petroleum led to the increase in the value of U.S. imports of crude petroleum from Brazil in 2010. While the value of U.S. imports rose by $527 million (11 percent) to $5.2 billion in 2010, the volume imported declined from 107.8 million barrels in 2009 to 92.6 million barrels.[15] Brazil is a minor supplier of crude petroleum to the United States, accounting for only about 2 percent of total U.S. imports. Brazilian crude petroleum is a heavier crude, similar to Mexican Mayan, and U.S. imports from Brazil generally fluctuate in tandem with changes in U.S. imports from Mexico.

Recovery in the U.S. economy in 2010 led to increased consumption of paper products in the United States, which, in turn, boosted demand for wood pulp and raised wood pulp prices. Rising energy costs, which, account for 55 percent of the cost of wood pulp production, also contributed to higher wood pulp prices.[16] Consequently, the rise in U.S. imports of wood pulp and wastepaper from Brazil in 2010 (up by $431 million or 83 percent to $952 million) reflects both a 33 percent increase in the average value per ton of wood pulp imported from Brazil and an increase in the quantity imported. Brazil is one of the world's leading exporters of wood pulp.

Growth in global demand for coffee continues to outpace the amount of coffee harvested, leading to higher coffee prices.[17] In 2010, the value of U.S. imports of coffee from Brazil grew by $335 million (44 percent) to $1.1 billion, while the volume of coffee imported rose by a more modest 12 percent, reflecting a 29 percent increase in the average unit value of coffee imported from Brazil from $2.33 per kilogram to $3.00 per kilogram. Brazil was the leading supplier of coffee to the U.S. market, accounting for 24 percent of the value of all U.S. coffee imports in 2010.[18]

[14] Meyer, *Brazil-U.S. Relations*, February 9, 2011, 8.
[15] Official statistics of the U.S. Department of Energy.
[16] Timber09, "Wood Costs for the Global Pulp Industry," March 19, 2011.
[17] Josephs, "High Coffee Prices May Not Be Enough to Increase Production," March 22, 2011.
[18] Based on official statistics of the U.S. Department of Commerce.

Bibliography: Brazil

Benson, Todd, and Ana Nicolaci da Costa, "Geithner Urged Brazil to Lobby China on Yuan: Source." Reuters, February 7, 2011.

Business Monitor International. "Petrochemicals Report." *Latin America Monitor: Brazil*, August 2010. http://www.latinamericamonitor.com.

Contini, Elisio, and Francisco J.B. Riefsnieder. "Agribusiness: Innovation and Competitiveness in Brazil." The Brazil Competitiveness Report 2009, edited by Irene Mia, Emilio Lozoya Austin, Carlos Arruda, and Marina Silva Araújo. Geneva: World Economic Forum, 2009. http://www.iberglobal.com/Archivos/brasil_wef.pdf.

Earth Times. "Brazil to Launch Massive Swine Flu Vaccination," March 4, 2010. http://www.earthtimes.org/articles/news/312545,brazil-to-launch-massive-swine-flu-vaccination-drive.html.

Ellsworth, Brian. "Petrobras Plans Two More Refinery Shutdowns in 2010." Reuters, August 18, 2010. http://www.reuters.com/article/2010/08/18/petrobras-brazil-idUSSAS00212620100818.

Global Trade Information Service, Inc. (GTIS). Global Trade Atlas Database (accessed March 24, 2011).

Josephs, Leslie. "High Coffee Prices May Not Be Enough to Increase Production." *Wall Street Journal*, March 22, 2011. http://online.wsj.com/article/SB10001424052748704461304576216343263657476.html.

Meyer, Peter J. *Brazil-U.S. Relations*. Congressional Research Service (CRS), February 9, 2011. http://www.fas.org/sgp/crs/row/RL33456.pdf.

Monteiro, Solange. "Brazil's Trade Woes." *The Brazilian Economy*, February 2011. http://www.gwu.edu/~ibi/FGV_Reports.htm.

Timber09. "Wood Costs for the Global Pulp Industry Have Increased 17 Percent the Past Two Years; Only the U.S. South Has Bucked the Trend." *Timber Community.com*, March 19, 2011. http://www.timbercommunity.com/content/global-market-pulp-production-increased-seven-percent-2010-which-increased-demand-wood-raw-m.

Wheatley, Jonathan. "Infrastructure Investment Puts Brazil on the Road to Recovery." *Financial Times*, June 28, 2010. http://www.ft.com/cms/s/0/3ef99d1c-7d14-11df-8845-00144feabdc0.html#axzz1I7JZVtkO (fee required.)

Canada

Gail Burns
(202) 205-2501
gail.burns@usitc.gov

Change from 2009 to 2010

U.S. trade deficit: Increased by $16.7 billion (32 percent) to $69.6 billion
U.S. exports: Increased by $34.3 billion (20 percent) to $206.0 billion
U.S. imports: Increased by $51.0 billion (23 percent) to $275.5 billion

Total U.S. merchandise trade with Canada, the United States' largest individual trading partner,[1] rose by $85.3 billion to $481.5 billion in 2010. The U.S. merchandise trade deficit with Canada increased by almost one-third to $69.6 billion (table CA.1). Major trade shifts occurred in both U.S. imports and exports of two sectors: minerals and metals, and transportation equipment. Economic recoveries in both countries contributed to the strong growth in bilateral trade.[2] Canada's real GDP grew 3.1 percent for the year 2010 as a whole, following a 2.5 percent decline in 2009.[3] The mining and the oil and gas sectors—the main drivers of the Canadian economy—rose 2.7 percent, while manufacturing—the principal employer in the country—grew by 1.8 percent. However, Canada's swift economic recovery was fueled by growth in all sectors, including housing, manufacturing, exports, household incomes, and consumer spending.[4]

In 2010, 96 percent of the growth in U.S.-Canadian bilateral trade occurred within two industries: transportation equipment, accounting for 24 percent of total trade, and energy-related products, with 20 percent of the total trade. The motor vehicle industry in North America is highly integrated,[5] contributing to significant trade in motor vehicles and motor-vehicle parts between the United States and Canada. In 2010, U.S. imports and exports of these products rose substantially compared to 2009 levels, as improvements in the economies of both countries led to increased automotive production and sales in both markets. Bilateral trade also increased, in value terms, in the energy-related products sector because of higher petroleum prices resulting from rising global demand.[6]

U.S. Exports

The value of U.S. exports to Canada increased by $34.3 billion (20 percent) to $206.0 billion in 2010. U.S. exports benefited from the rebound in Canada's economic growth in 2010 to pre-recession levels and from the weakening of the U.S. dollar, which made U.S. products more price-competitive. In 2010, the transportation equipment and minerals and metals sectors contributed the most to the increase in U.S. exports to Canada.

---

[1] When the European Union is considered a single entity, Canada is the second-largest U.S. trading partner.

[2] IMF, "World Economic Outlook: Recovery, Risk, and Rebalancing," World Economic Outlook update, October 2010.

[3] *Trading Economics*, Canada GDP Growth Rate (accessed March, 24, 2011).

[4] *Economic Times*, "Record-Breaking Growth by Canadian Economy," June 1, 2010.

[5] The Canadian auto industry is closely linked to the United States auto industry due to the Automotive Products Trade Agreement (APTA) and the North American Free Trade Agreement (NAFTA).

[6] Based on data compiled from official statistics of the U.S. Department of Energy.

TABLE CA.1 Canada: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	12,514	14,882	17,241	16,571	17,996	1,425	8.6
Forest products	9,846	10,236	10,557	9,142	10,150	1,009	11.0
Chemicals and related products	28,475	29,033	30,657	26,743	31,281	4,538	17.0
Energy-related products	8,953	10,563	16,772	10,127	12,436	2,308	22.8
Textiles and apparel	3,561	3,531	3,645	3,063	3,386	323	10.5
Footwear	73	78	86	83	87	4	4.8
Minerals and metals	22,687	24,689	27,816	18,907	24,978	6,071	32.1
Machinery	19,331	20,013	21,080	17,428	20,313	2,885	16.6
Transportation equipment	64,493	69,460	63,980	44,447	57,243	12,797	28.8
Electronic products	18,378	18,183	18,474	15,227	16,703	1,477	9.7
Miscellaneous manufactures	4,425	5,067	5,449	4,664	5,175	511	11.0
Special provisions	5,490	7,385	6,668	5,293	6,207	914	17.3
Total	198,226	213,119	222,424	171,695	205,956	34,260	20.0
U.S. imports of merchandise for consumption:							
Agricultural products	16,128	17,919	20,691	17,136	18,999	1,863	10.9
Forest products	26,717	23,435	20,496	14,781	16,544	1,763	11.9
Chemicals and related products	28,036	29,939	33,124	25,021	30,037	5,016	20.0
Energy-related products	73,748	79,138	111,953	64,367	82,587	18,220	28.3
Textiles and apparel	3,395	3,080	2,484	1,972	2,225	253	12.8
Footwear	79	76	77	66	66	1	0.0
Minerals and metals	32,155	34,562	36,695	22,533	31,382	8,849	39.3
Machinery	13,076	13,675	13,613	10,352	10,899	547	5.3
Transportation equipment	76,816	77,823	63,547	43,301	58,922	15,621	36.1
Electronic products	11,958	12,141	11,830	9,626	9,449	-176	-1.8
Miscellaneous manufactures	6,013	5,825	5,264	4,052	4,521	468	11.6
Special provisions	14,911	14,892	15,065	11,379	9,904	-1,474	-13.0
Total	303,034	312,505	334,840	224,584	275,536	50,952	22.7
U.S. merchandise trade balance:							
Agricultural products	-3,614	-3,037	-3,450	-565	-1,003	-438	-77.6
Forest products	-16,871	-13,199	-9,939	-5,639	-6,394	-755	-13.4
Chemicals and related products	439	-906	-2,467	1,722	1,244	-478	-27.8
Energy-related products	-64,796	-68,575	-95,182	-54,239	-70,151	-15,912	-29.3
Textiles and apparel	166	451	1,161	1,091	1,161	69	6.4
Footwear	-6	2	9	18	21	3	23.5
Minerals and metals	-9,468	-9,873	-8,879	-3,625	-6,404	-2,779	-76.6
Machinery	6,255	6,338	7,467	7,076	9,414	2,338	33.0
Transportation equipment	-12,323	-8,363	433	1,146	-1,679	-2,825	[a]
Electronic products	6,419	6,041	6,644	5,601	7,254	1,653	29.5
Miscellaneous manufactures	-1,588	-758	184	612	654	43	7.0
Special provisions	-9,421	-7,507	-8,397	-6,085	-3,697	2,388	39.2
Total	-104,808	-99,386	-112,415	-52,889	-69,580	-16,692	-31.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

Transportation equipment exports were by far the leading contributor to the growth in exports to Canada in 2010, increasing by $12.8 billion (29 percent) to $57.2 billion. Specifically, U.S. exports of motor vehicles and certain motor-vehicle parts increased by $5.6 billion and $3.5 billion, respectively (table CA.2). U.S. exports to Canada of internal combustion piston engines, other than for aircraft, also showed a significant gain during the period, rising by $1.5 billion (32 percent) to $6.1 billion. The significant growth in U.S. exports of motor vehicles to Canada largely reflects the economic recovery in that country and rising demand by Canadian consumers. The increase in U.S. exports of certain motor-vehicle parts likewise reflected the recovery of the Canadian automobile industry. In 2009, production declined 28.5 percent from 2008 levels because vehicle demand dropped in the United States, where automakers in Canada ship most of their output.[7] In 2010, Canadian vehicle assembly production jumped 39 percent, to 2.1 million cars and trucks.[8]

U.S. exports of minerals and metals to Canada, which accounted for almost one-quarter of all such exports in 2010, rose by $6.1 billion (32 percent) to $25.0 billion in 2010. The major components of this group are plates, sheets, and strips of carbon and alloy steels, which are used to produce durable goods (e.g., automobiles), and steel pipe and tubes used for oil and gas drilling. The growth of these exports to Canada reflected the rebound of the integrated automobile industries in the United States and Canada, as well as the increase in oil and gas drilling in Canada.[9]

Canada is the primary U.S. trading partner for energy-related products, accounting for 28 percent of the total U.S. trade deficit in 2010 in these goods. The value of U.S. exports of energy-related products to Canada increased by $2.3 billion (23 percent) to $12.4 billion in 2010, because of rising crude petroleum prices. By contrast, in terms of quantity, U.S. exports of energy-related products to Canada remained relatively stable from 2009 to 2010, while U.S. exports of crude petroleum decreased by 5 percent.[10]

U.S. Imports

The value of U.S. imports from Canada increased by $51.0 billion (23 percent) to $275.5 billion in 2010. Collectively, U.S. imports of energy-related products, transportation equipment, minerals and metals, and chemicals and related products accounted for almost three-fourths ($202.9 billion) of U.S. imports from Canada in 2010. Energy-related products and transportation equipment were the leading drivers of the change, accounting for just over one-half of the overall import increase. The U.S. economic recovery and higher energy prices prompted most of the increase in U.S. imports from Canada in 2010.

U.S. imports of energy-related products from Canada grew by $18.2 billion (28 percent) to $82.6 billion in 2010. Higher global crude petroleum prices, which increased from $56.35 per barrel in 2009 to $73.80 per barrel in 2010, were the leading contributor to the rise in the value of energy-related products imports.[11] U.S. imports of crude petroleum rose by $11.3 billion (31 percent), of petroleum products by $5.1 billion (52 percent), and of natural gas components, by $1.5 billion. However, in terms of quantity U.S. imports of crude petroleum from Canada increased only moderately, rising by 11 million barrels of

[7] Global Auto Industry, "Canada: 2010 Auto Output Rose, But Still Off Peak Year," February, 2011.
[8] Ward's Automotive Reports, U.S. Car and Truck Sales (accessed April 4, 2011).
[9] See the "Minerals and Metals" chapter for more detailed information.
[10] Based on data compiled from official statistics of the U.S. Department of Energy.
[11] Based on data compiled from official statistics of the U.S. Department of Energy.

TABLE CA.2 Canada: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Transportation equipment:							
Motor vehicles (TE009)	22,936	25,135	22,320	15,806	21,453	5,647	35.7
Certain motor-vehicle parts (TE010)	18,263	18,261	15,268	10,649	14,131	3,482	32.7
Internal combustion piston engines, other than for aircraft (TE002)	8,084	8,284	7,318	4,613	6,098	1,485	32.2
Steel mill products (MM025)	5,600	6,085	7,245	4,372	6,650	2,279	52.1
Petroleum products (EP005)	3,272	4,105	6,968	3,973	5,709	1,736	43.7
All other	140,071	151,249	163,305	132,283	151,915	19,632	14.8
Total	198,226	213,119	222,424	171,695	205,956	34,260	20.0
U.S. IMPORTS:							
Increases:							
Transportation equipment:							
Motor vehicles (TE009)	48,623	47,606	37,071	25,108	37,133	12,025	47.9
Certain motor-vehicle parts (TE010)	12,597	12,526	9,897	5,646	8,282	2,635	46.7
Energy-related products:							
Crude petroleum (EP004)	32,889	37,929	62,485	36,972	48,236	11,264	30.5
Petroleum products (EP005)	10,131	11,856	14,420	9,699	14,778	5,078	52.4
Natural gas and components (EP006)	27,039	25,410	30,205	14,688	16,225	1,537	10.5
Minerals and metals:							
Precious metals and non-numismatic coins (MM020)	2,660	2,922	4,220	3,740	7,096	3,356	89.7
Steel mill products (MM025)	4,702	5,275	6,950	3,448	5,347	1,899	55.1
All other	164,393	168,980	169,592	125,281	138,440	13,159	10.5
Total	303,034	312,505	334,840	224,584	275,536	50,952	22.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level or processing used to produce them, with the least processed products listed first.

crude petroleum to 720 million barrels, and by 9 million barrels of refined petroleum products to 205 million.[12] The increase in the value of imports of natural gas from Canada via pipeline was likewise due to higher prices, from $3.67 per billion cubic feet in 2009 to $4.18 per billion cubic feet in 2010; in terms of quantity, U.S. imports declined by 1.8 percent.[13]

U.S. imports of transportation equipment from Canada rose by $15.6 billion (36 percent) to $58.9 billion, led by increased imports of motor vehicles and parts. U.S. imports of Canadian motor vehicles totaled $37.1 billion in 2010, representing a 48 percent gain over 2009; imports of certain motor-vehicle parts from Canada grew by 47 percent to $8.3 billion. These large gains reflected the U.S. economic recovery as it gained momentum, triggering higher automobile demand and increasing the availability of credit for the purchase of new vehicles in the United States. In terms of units, the U.S. market rose by 36 percent in 2010.[14]

In 2010, U.S. imports from Canada of chemicals and related products increased by $5.0 billion (20 percent) to $30.0 billion; this increase reflected gains in almost all major product categories except medicinal chemicals, which fell by 13 percent. The largest increases in U.S. imports for products in this group were fertilizers, primary petrochemicals, polyethylene resins, organic commodity chemicals, and certain organic chemicals. Except for fertilizers, these goods are upstream chemicals used to make finished products. As the U.S. economy recovered in 2010, the demand for these intermediate (upstream) products increased. [15]

U.S. imports from Canada of minerals and metals increased by $8.8 billion (39 percent) to $31.4 billion in 2010. Canada, the leading global supplier of minerals and metals, accounted for over 20 percent of all U.S. imports of these products. The substantial rise in imports of minerals and metals primarily stemmed from a $3.4 billion increase in imports of precious metals and non-numismatic coins, along with a $1.9 billion increase in imports of steel mill products in 2010.[16] Imports of steel mill products grew in large part due to higher demand from the quickly recovering domestic automobile industry. The almost 90 percent gain in the value of U.S. imports of precious metals and non-numismatic coins from Canada reflected a continued rise in annual average prices. Among all U.S. trade partners, Canada accounted for the greatest increase in U.S. imports of gold bullion, up by $2.1 billion (103 percent) to $4.2 billion, and of silver bullion, up by $650 million (186 percent) to $998 million.[17]

[12] Compiled from official statistics of the U.S. Department of Energy.
[13] See the "Energy-related Products" chapter for more detailed information.
[14] Ward's Automotive Reports, U.S. Car and Truck Sales, 1931–2010 (accessed April 4, 2011).
[15] See the "Chemicals" chapter for more detailed information.
[16] See the "Steel Mill Products" chapter for more detailed information.
[17] See the "Precious Metals and Non-numismatic Coins" section for more detailed information.

Bibliography: Canada

Economic Times. "Record-Breaking Growth by Canadian Economy," June 1, 2010. http://www.landcorpinternational.com/en/News/General-News-Articles/Record-Breaking-Growth-by-Canadian-Economy/.

Global Auto Industry. "Canada: 2010 Auto Output Rose, But Still Off Peak Year." AMERItalk, February 2011. http://www.globalautoindustry.com/article.php?id=6230&jaar=2011&maand=2&target=Ameri.

International Monetary Fund (IMF). "World Economic Outlook: Recovery, Risk, and Rebalancing." World Economic Outlook update, October 2010. http://www.imf.org/external/pubs/ft/weo/2010/02/index.htm.

Trading Economics. Canada GDP Growth Rate. http://www.tradingeconomics.com/canada/gdp-growth (accessed March 24, 2011).

U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). "Gross Domestic Product: Fourth Quarter and Annual 2010 (Second Estimate)," February 25, 2011.

Ward's Automotive Reports. U.S. Car and Truck Sales, 1931–2010. http://wardsauto.com/keydata/historical/UsaSa01summary/ (accessed April 4, 2011).

China

David Coffin
(202) 205-2232
david.coffin@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $47.9 billion (21 percent) to $278.3 billion
U.S. exports: Increased by $20.6 billion (32 percent) to $85.7 billion
U.S. imports: Increased by $68.5 billion (23 percent) to $364.0 billion

Although the growth rate for U.S. exports to China outpaced the growth rate for U.S. imports from China in 2010, the U.S. trade deficit with China widened by $47.9 billion (table CH.1). The main causes of the growing trade deficit were deepening bilateral deficits with China in electronic products ($30.6 billion), miscellaneous manufactures ($7.8 billion), and textiles and apparel ($6.8 billion). Many multinational corporations conduct or contract final assembly operations in China for a wide variety of consumer products. U.S. consumer demand growth for these products contributed to the increase in U.S. imports and the expansion of the U.S. trade deficit with China in 2010.

U.S. Exports

The rise in U.S. exports to China was primarily driven by the agricultural products sector, in which exports to China rose by $4.5 billion (33 percent) to $18.2 billion in 2010. Exports of soybeans and cotton recorded the two largest absolute increases among agricultural products (table CH. 2). Soybean exports to China, which increased by $1.6 billion, reflected the country's strong demand for soybean meal and cooking oil,[1] while the $1.2 billion increase in U.S. cotton exports resulted from China's increased textile and apparel production in 2010.[2] Additionally, higher prices for cotton and soybeans in 2010 contributed to the increased values of U.S. exports in 2010 compared to 2009.[3]

The transportation equipment sector accounted for the second-highest absolute increase among U.S. exports to China, growing by $3.3 billion (36 percent) to $12.5 billion in 2010. Within this sector, U.S. exports of motor vehicles grew by a notable 227 percent ($2.2 billion). China's rising incomes and relatively low ratio of vehicles per capita have produced rapid growth in its motor vehicle market;[4] in 2009 China became the largest motor vehicle market in the world.[5]

U.S. exports of chemicals and related products expanded $2.7 billion (25 percent) to $13.3 billion in 2010. U.S. exports of one product category in this group—other plastics in primary forms—rose by $565 million (46 percent) to $1.8 billion in 2010, achieving the largest increase in this sector. These products are primarily resins that are used in a variety of finished consumer and construction goods. U.S. exports of silicon to China also displayed substantial growth, with an increase of $420 million (86 percent) to $909

[1] USDA, FAS, "Strong Processing Margins Support," January 2010, 1.
[2] USDA, FAS, *Cotton and Wool Situation and Outlook Yearbook*, June 11, 2010, 6.
[3] Compiled from official statistics of the U.S. Department of Commerce.
[4] Chrysler, "Domestic Brands, New Markets Changing China Landscape," March 7, 2011; Bloomberg News, "China Ends U.S.'s Reign as Largest Auto Market," January 11, 2010.
[5] Bloomberg News, "China Ends U.S.'s Reign as Largest Auto Market," January 11, 2010.

TABLE CH.1 China: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	7,264	8,981	12,811	13,762	18,232	4,470	32.5
Forest products	2,572	3,272	3,518	3,720	5,050	1,330	35.8
Chemicals and related products	6,863	8,975	9,885	10,643	13,344	2,701	25.4
Energy-related products	307	407	584	708	1,619	911	128.7
Textiles and apparel	731	844	940	846	1,083	237	28.0
Footwear	57	38	35	44	55	11	25.0
Minerals and metals	7,736	9,043	9,701	8,703	10,791	2,088	24.0
Machinery	5,270	6,086	6,628	5,424	7,903	2,479	45.7
Transportation equipment	9,020	11,077	9,659	9,193	12,519	3,326	36.2
Electronic products	11,113	11,433	12,375	11,133	13,494	2,361	21.2
Miscellaneous manufactures	207	307	367	362	354	-8	-2.2
Special provisions	483	551	663	585	1,301	716	122.3
Total	51,624	61,013	67,166	65,124	85,746	20,622	31.7
U.S. imports of merchandise for consumption:							
Agricultural products	4,303	4,945	5,588	4,850	5,653	804	16.6
Forest products	6,630	7,317	7,371	6,281	7,123	842	13.4
Chemicals and related products	14,389	16,889	20,918	17,510	21,319	3,809	21.8
Energy-related products	1,139	641	2,025	305	495	190	62.3
Textiles and apparel	31,284	36,162	36,368	35,083	42,095	7,012	20.0
Footwear	13,795	14,090	14,444	13,415	15,727	2,311	17.2
Minerals and metals	23,462	25,749	28,975	19,146	22,208	3,062	16.0
Machinery	25,569	28,386	29,923	25,996	32,326	6,330	24.4
Transportation equipment	8,656	10,185	10,837	8,553	11,850	3,297	38.5
Electronic products	103,289	116,467	117,986	110,793	143,716	32,923	29.7
Miscellaneous manufactures	51,068	58,306	58,917	49,892	57,635	7,743	15.5
Special provisions	3,467	3,950	4,151	3,721	3,900	179	4.8
Total	287,052	323,087	337,504	295,545	364,047	68,503	23.2
U.S. merchandise trade balance:							
Agricultural products	2,961	4,036	7,223	8,913	12,579	3,666	41.1
Forest products	-4,058	-4,045	-3,853	-2,561	-2,073	488	-19.1
Chemicals and related products	-7,526	-7,914	-11,033	-6,867	-7,975	-1,108	-16.1
Energy-related products	-832	-234	-1,441	403	1,125	721	178.8
Textiles and apparel	-30,553	-35,317	-35,429	-34,237	-41,013	-6,775	19.8
Footwear	-13,738	-14,052	-14,409	-13,371	-15,671	-2,300	17.2
Minerals and metals	-15,726	-16,707	-19,274	-10,443	-11,416	-974	9.3
Machinery	-20,299	-22,300	-23,295	-20,572	-24,423	-3,852	18.7
Transportation equipment	364	892	-1,178	640	669	29	4.5
Electronic products	-92,176	-105,034	-105,611	-99,660	-130,222	-30,562	30.7
Miscellaneous manufactures	-50,861	-57,999	-58,550	-49,530	-57,281	-7,751	15.6
Special provisions	-2,984	-3,399	-3,489	-3,136	-2,599	536	-17.1
Total	-235,428	-262,072	-270,338	-230,421	-278,301	-47,881	20.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

TABLE CH.2 China: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 *Percent*
	Million dollars						
U.S. EXPORTS:							
Increases:							
Motor vehicles (TE009)	562	694	946	951	3,105	2,154	226.6
Agricultural products:							
Oilseeds (AG032)	2,536	4,121	7,261	9,222	10,824	1,602	17.4
Cotton, not carded or combed (AG049)	2,059	1,454	1,631	824	2,064	1,241	150.6
Semiconductor manufacturing equipment (MT019A)	1,143	1,586	1,079	642	2,193	1,551	241.8
All other	45,323	53,158	56,249	53,486	67,560	14,074	26.3
Total	51,624	61,013	67,166	65,124	85,746	20,622	31.7
U.S. IMPORTS:							
Increases:							
Computers, peripherals, and parts (EL017)	46,583	52,272	52,556	50,873	68,148	17,275	34.0
Apparel (TX005)	23,191	27,202	27,263	27,097	31,928	4,831	17.8
Furniture (MS009)	13,481	14,305	13,600	11,181	13,676	2,495	22.3
All other	203,798	229,306	244,085	206,393	250,294	43,901	21.3
Total	287,052	323,085	337,504	295,545	364,047	68,503	23.2

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

million in 2010. Chinese production of solar photovoltaic (PV) cells significantly expanded in 2009–10, likely contributing to the rise in Chinese imports of silicon, the raw material used in most solar cells.[6]

U.S. exports of electronic products to China increased by $2.4 billion (21 percent) in 2010 to $13.5 billion. Semiconductors, medical goods, and measuring, testing, and controlling instruments accounted for about two-thirds of U.S. exports of electronic goods. Exports of each of these products experienced 25 percent or higher growth in 2010. China is a leading consumer of semiconductors, which are used in a number of products including computers, telecom equipment, and motor vehicles.[7] Increased exports of measuring, testing, and controlling equipment are attributable to continued industrial growth and public attention to air pollution in China.[8]

U.S. Imports

U.S. imports from China rose by $68.5 billion (23 percent) to $364.0 billion in 2010. As the U.S. economy recovered,[9] domestic demand for a number of consumer products increased, including electronics as well as textiles and apparel; a large percentage of both these categories of goods are produced in China. U.S. imports of electronic products from China increased by $32.9 billion (30 percent) to $143.7 billion in 2010. Many U.S. companies conduct final assembly of their electronic products in China; these finished products, such as computers, computer accessories and parts, telecommunications equipment, and consumer electronics, made up 84 percent of U.S. electronic product imports from China. Growth in these imports from China reflects resurgent consumer demand for the latest technology products, such as tablets and Internet-enabled smartphones.[10] In addition, the rising popularity of these mobile communication devices bolstered demand for broadband Internet capacity, which U.S. companies met through purchases of networking equipment produced or assembled in China.[11]

U.S. imports of miscellaneous manufactures from China increased by $7.7 billion (16 percent) to $57.6 billion in 2010. China is either the dominant or leading supplier in many categories of miscellaneous manufactures.[12] Much of the growth came from U.S. imports of furniture from China, which increased by $2.5 billion (22 percent) in 2010. U.S. imports of luggage, toys, and lamps from China also expanded in 2010.

U.S. imports of textiles and apparel from China increased by $7.0 billion (20 percent) to $42.1 billion in 2010. With the economic recovery in 2010, U.S. consumers bought more textile and apparel products from China, one of the world's most competitive producers and the leading supplier of these products to the United States.[13]

---

[6] Solarbuzz, "Solarbuzz Reports World Solar Photovoltaic Market Grew," March 15, 2011.

[7] IC Insights, *The McClean Report 2011Edition*, 2011, 2–22.

[8] See the "Measuring and Testing Equipment" section of the "Electronic Products" chapter for more detailed information.

[9] NBER, "Business Cycle Dating Committee," September 20, 2010.

[10] See the "Electronic Products" chapter for more detailed information.

[11] Telecommunications Industry Alliance, *2011 ICT Market Review and Forecast*, 2011.

[12] See the "Miscellaneous Manufactures" chapter for more detailed information.

[13] See the "Textiles and Apparel" section for more detailed information.

Bibliography: China

Bloomberg News. "China Ends U.S.'s Reign as Largest Auto Market," January 11, 2010. http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aE.x_r_l9NZE.

Chrysler, Mack. "Domestic Brands, New Markets Changing China Landscape." *Ward's Automotive News Reports*, March 7, 2011.

IC Insights, *The McClean Report 2011: A Complete Analysis and Forecast of the Integrated Circuit Industry*. Scottsdale, AZ: IC Insights, Inc., 2011.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Solarbuzz. "Solarbuzz Reports World Solar Photovoltaic Market Grew to 18.2 Gigawatts in 2010, Up 139% Y/Y." News release, March 15, 2011. http://www.solarbuzz.com/industry-news/solarbuzz-reports-world-solar-photovoltaic-market-grew-182-gigawatts-2010-139-yy.

Telecommunications Industry Alliance (TIA). *2011 ICT Market Review and Forecast*, 2011.

U.S. Department of Agriculture (USDA). Foreign Agricultural Service (FAS). *Cotton and Wool Situation and Outlook,* June 22, 2010.

———. "Strong Processing Margins Support China's Expanding Soybean Import Market Demand." Oilseeds: World Market and Trade Circular Series FOP 01-10, January 2010. http://www.fas.usda.gov/oilseeds/circular/2010/January/oilseedsfull01-10.pdf.

European Union-27[1]

Vincent DeSapio
(202) 205-3435
vincent.desapio@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $21.8 billion (29 percent) to $97.6 billion
U.S. exports: Increased by $14.9 billion (7 percent) to $217.3 billion
U.S. imports: Increased by $36.8 billion (13 percent) to $314.9 billion

After four consecutive years of declines, the U.S. trade deficit with the European Union (EU) widened by $21.8 billion (29 percent) to $97.6 billion in 2010, as total U.S.-EU trade increased by 11 percent (table EU.1). The economies of the United States and the EU remained highly interdependent in 2010, with almost one-third of all U.S.-EU trade consisting of intra-firm transfers.[2] U.S. exports to the EU benefited from improved economic performance in the region, as the EU economies began to stabilize in the second quarter of 2010, with output expanding during the remaining two quarters of the year.[3]

U.S. Exports

Growth in the value of U.S. exports to the EU in 2010 was driven by a 1.8 percent expansion in European GDP, which was accompanied by rises in private consumption and business investment.[4] Private consumption growth was aided by a recovery in household incomes and financial wealth and the stabilization of housing prices.[5] Nonetheless, total exports were still below the peak level of $251.2 billion reached in 2008.

Moreover, across sectors, the resurgence of U.S. exports was somewhat uneven. Although exports in most product sectors grew, increased exports of chemicals and related products and of minerals and metals accounted for 55 percent of the total growth in U.S. exports to the EU. Certain energy-related products also saw strong U.S. export growth, while transportation equipment (largely aircraft-related) registered the largest decline in exports.

Within the chemicals and related products sector, U.S. exports to the EU of organic specialty chemicals and certain organic chemicals increased by 30 percent to $7 billion in 2010 (table EU.2). This rise was primarily due to increased exports of the gasoline additive ethyl tertiary-butyl ether (ETBE), which is made from ethanol. EU countries are

[1] On January 1, 2007, the EU admitted two additional countries, bringing the total membership of the EU to 27. The present EU member countries are Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.
[2] EC, "Bilateral Trade Relations," n.d.
[3] OECD, *OECD Economic Surveys: Euro Area 2010*, December 2010, 32.
[4] IMF, "World Economic Outlook: Recovery, Risk, and Rebalancing," October 2010.
[5] OECD, *OECD Economic Outlook*, November 2010, 84, 87.

TABLE EU.1 EU27: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	8,704	10,210	11,527	8,582	10,371	1,789	20.8
Forest products	4,947	5,539	5,698	4,476	5,139	663	14.8
Chemicals and related products	43,015	49,656	55,958	51,116	55,292	4,176	8.2
Energy-related products	6,896	7,449	15,653	12,581	14,213	1,632	13.0
Textiles and apparel	1,899	2,064	2,121	1,666	1,980	315	18.9
Footwear	60	65	68	53	56	3	5.7
Minerals and metals	16,389	20,757	22,965	17,339	21,349	4,011	23.1
Machinery	16,350	17,352	18,605	13,543	15,521	1,978	14.6
Transportation equipment	45,180	55,680	59,168	44,357	41,916	-2,441	-5.5
Electronic products	41,767	43,632	43,636	35,455	36,521	1,065	3.0
Miscellaneous manufactures	5,684	6,639	7,862	6,340	5,612	-728	-11.5
Special provisions	6,389	7,208	7,934	6,885	9,358	2,473	35.9
Total	197,281	226,252	251,196	202,392	217,329	14,935	7.4
U.S. imports of merchandise for consumption:							
Agricultural products	16,220	17,558	17,569	15,534	16,702	1,168	7.5
Forest products	6,797	6,140	5,671	3,974	4,340	366	9.2
Chemicals and related products	74,042	78,521	84,791	77,571	83,661	6,090	7.9
Energy-related products	26,057	28,011	33,956	18,970	22,150	3,180	16.8
Textiles and apparel	5,988	6,287	5,791	3,972	4,500	528	13.3
Footwear	1,700	1,776	1,586	1,090	1,278	188	17.3
Minerals and metals	27,836	29,375	29,376	18,305	23,514	5,210	28.5
Machinery	36,486	39,775	41,416	29,322	31,780	2,458	8.4
Transportation equipment	70,056	73,281	70,232	48,048	59,848	11,801	24.6
Electronic products	36,405	38,114	40,399	32,502	37,091	4,589	14.1
Miscellaneous manufactures	13,602	15,931	14,520	10,955	12,335	1,380	12.6
Special provisions	15,709	17,420	18,360	17,862	17,680	-182	-1.0
Total	330,898	352,189	363,667	278,104	314,880	36,774	13.2
U.S. merchandise trade balance:							
Agricultural products	-7,516	-7,348	-6,042	-6,952	-6,331	620	8.9
Forest products	-1,850	-602	27	501	799	298	59.2
Chemicals and related products	-31,027	-28,865	-28,833	-26,455	-28,369	-1,914	7.2
Energy-related products	-19,161	-20,563	-18,303	-6,388	-7,937	-1,548	24.2
Textiles and apparel	-4,089	-4,223	-3,670	-2,307	-2,520	-213	9.2
Footwear	-1,640	-1,711	-1,518	-1,037	-1,222	-185	17.9
Minerals and metals	-11,446	-8,618	-6,410	-966	-2,165	-1,199	124.1
Machinery	-20,136	-22,423	-22,811	-15,779	-16,259	-480	3.0
Transportation equipment	-24,876	-17,601	-11,064	-3,691	-17,933	-14,242	385.8
Electronic products	5,362	5,519	3,237	2,953	-570	-3,523	[a]
Miscellaneous manufactures	-7,918	-9,292	-6,658	-4,615	-6,724	-2,109	45.7
Special provisions	-9,320	-10,212	-10,426	-10,977	-8,321	2,655	-24.2
Total	-133,617	-125,937	112,472	-75,712	-97,551	-21,839	28.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

TABLE EU.2 EU27: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Precious metals and non-numismatic coins (MM020)	5,581	7,395	9,095	8,983	10,304	1,321	14.7
Coal, coke, and related chemical products (EP003)	1,711	2,168	3,836	3,049	4,274	1,225	40.2
Chemicals and related products:							
Organic specialty chemicals (CH005)	3,011	3,031	2,922	2,443	3,657	1,213	49.7
Certain organic chemicals (CH006)	3,239	3,281	2,963	2,440	3,337	896	36.7
Decreases:							
Aircraft, spacecraft, and related equipment (TE013)	15,916	20,798	19,868	27,897	23,796	-4,101	-14.7
All other	167,824	189,578	212,512	157,581	171,962	14,382	9.1
Total	197,281	226,252	251,196	202,392	217,329	14,937	7.4
U.S. IMPORTS:							
Increases:							
Motor vehicles (TE009)	32,883	33,701	30,250	17,373	25,588	8,216	47.3
Petroleum products (EP005)	21,354	22,244	27,568	14,049	16,988	2,939	20.9
All other	276,660	296,244	305,849	246,682	272,304	25,622	10.4
Total	330,898	352,189	363,667	278,104	314,880	36,776	13.2

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

importing more ETBE to blend with gasoline to increase their use of renewable fuels and meet the requirements of the Kyoto protocol.[6]

Within the minerals and metals sector, the value of U.S. exports of precious metals and non-numismatic coins to the EU increased by 15 percent to $10.3 billion in 2010. The rise in the value of exports largely reflects the rapid rise in the price of gold, platinum, and other precious metals rather than changes in the quantity of exports, which tended to remain stable during 2010. This increase in value principally affected exports of various substances to three nations in particular: unwrought platinum and platinum in powder form, ash containing precious metals, or precious metal compounds and precious metal coins to Germany; platinum waste and scrap and precious metal coins to the United Kingdom (a major international banking center, as well as a center for fabricating and trading precious metals); and non-gold and non-platinum precious metal waste and scrap and precious metal ash to Italy. All three nations have extensive precious metal refining and fabricating capabilities.

Within the energy-related products sector, U.S. exports of coal, coke, and related chemical products to the EU increased by 40 percent in 2010 to $4.3 billion. The growth can largely be attributed to rising demand by EU utilities, metal foundries, and other industrial users in a number of EU nations, and was indicative of the breadth of the EU's economic recovery. [7]

In contrast, declines in exports of U.S. transportation goods in 2010 occurred as a result of a 15 percent decline (to $23.8 billion) in U.S. exports of aircraft, spacecraft, and related equipment to the EU. A decline in commercial aircraft-related deliveries to France and the United Kingdom followed a fall-off in orders owing to the worldwide economic crises beginning in late 2008. The decline in 2010 follows a strong increase in 2009 deliveries to the EU resulting from orders placed with U.S. aircraft manufacturers before the economic crises.[8]

U.S. Imports

In 2010, U.S. imports from the EU rose by 13 percent to $314.9 billion, but remained well below the peak level of $363.7 billion reached in 2008. Imports in virtually all product sectors increased, with transportation equipment, chemicals and related products, minerals and metals, energy-related products, and electronic products accounting for 84 percent of the growth in 2010. The largest absolute increases in U.S. imports from the EU in 2010 were in the transportation equipment and the chemicals and related products sectors.

The increased imports in the transportation equipment sector were largely due to a 47 percent ($25.6 billion) rise in the value of imports of motor vehicles. U.S. imports from Germany accounted for the bulk of this increase, reflecting increased U.S. sales in 2010 of BMW, Audi, and Mercedes-Benz vehicles.[9] The combination of the U.S. economic recovery, increasing consumer confidence, pent-up automobile demand, and government

[6] EC, *Summaries of EU Legislation*, "Motor Vehicles: Use of Biofuiels," June 8, 2009.
[7] See "Energy-Related Products" chapter for more information.
[8] Boeing, "Commercial Aircraft Orders," (accessed March 2, 2011).
[9] *Quattroworld*, "Audi Shatters All-time U.S. Sales Record in 2010," January 4, 2011; Alex Ricciuti, "BMW Tops Mercedes and Audi in 2010 Passenger Car Sales," January 11, 2011.

incentives served to reverse a 2009 decline in U.S. automobile sales and boost 2010 imports.[10]

Within the chemicals and related products sector, the value of U.S. imports of petroleum products from the EU rose by 21 percent in 2010 to $17.0 billion. This increase was entirely due to higher prices (the average global price of a barrel of crude petroleum rose from $56.35 per barrel in 2009 to $73.80 per barrel in 2010); U.S. imports of refined petroleum products from the EU actually decreased in quantity, dropping from 108 million barrels in 2009 to 88.9 million barrels in 2010.[11] This decrease was caused by strikes in France in 2010, which shut down many of the country's refineries for part of the year. France normally supplies much of the EU demand and then exports the remainder through the Netherlands to the United States.[12]

Within the minerals and metals sector, U.S. imports of steel mill products from the EU increased by 37 percent in 2010 to $5.8 billion, with imports from Germany accounting for nearly one-third of the increase. Imports from Germany increased in most of the semifinished product categories, as ThyssenKrupp, the large German steelmaker, began operating a new plant in Calvert City, Alabama, in late 2010; the plant rolls semifinished steel from ingots, blooms, and billets imported from Germany. Imports of flat-rolled products in the form of plates and sheets from Germany also increased significantly with recovery in major U.S. end-use markets such as automobile and truck manufacturing. Increases in imports of flat-rolled sheets and plates from Sweden and of bars and rods from the United Kingdom also contributed significantly to the increase in steel imports.[13]

Within the electronic products sector, U.S. imports of telecommunications equipment from the EU grew 41 percent in 2010 to $3.5 billion. Imports from Sweden alone nearly tripled, rising to $1.1 billion due to increased imports of networking equipment.[14] The latter increase reflected Stockholm-headquartered Ericsson's increased North American presence following its acquisition of substantial assets from Nortel, a defunct Canadian network equipment company.[15] Ericsson was a leading supplier to Metro PCS and Verizon, as they launched commercial fourth-generation long-term evolution (4G LTE) networks in 2010. Ericsson also served as a key supplier to AT&T in building LTE trial networks.[16]

[10] *Associated Press*, "Detroit's Big Three Automakers Post Solid 2010 Sales," January 4, 2011.

[11] See the "Energy and Related Products" chapter for more information.

[12] *Oil & Gas Journal*, "Refining Report," March 7, 2011. Most of the U.S. imports of refined petroleum products from the EU are distillate fuel oils and motor fuel blending stocks. The United Kingdom and the Netherlands are the largest import suppliers, each accounting for about 25 percent of U.S. imports of these products. See "Energy-Related Products" chapter for more information.

[13] See the "Steel Mill Products" section in the "Minerals and Metals" chapter for more information.

[14] See the "Telecommunications Equipment" section in the "Electronic Products" chapter for more information.

[15] Ericsson, "Ericsson's North American Sales More Than Doubled in 2010," n.d. (accessed April 23, 2011).

[16] Ericsson, "Ericsson Launches First LTE Network," September 29, 2010; Ericsson, "LTE Rollout for AT&T," February 10, 2010. For more information, see the "Telecommunications equipment" section in the "Electronic Products" chapter.

Bibliography: EU-27

Associated Press. "Detroit's Big Three Automakers Post Solid 2010 Sales," January 4, 2011. http://www.msnbc.msn.com/id/40909405/ns/business-autos/.

Boeing Company. "Commercial Aircraft Orders." http://active.boeing.com/commercial/orders/index.cfm?content=displaystandardreport.cfm&pageid=m25062&RequestTimeout=100000 (accessed March 31, 2011).

Ericsson Communications Company Incorporated. "Ericsson Launches its First LTE Network in North America." News release, September 29, 2010. http://www.ericsson.com/thecompany/press/releases/2010/09/1447673.

_____. "Ericsson's North American Sales More Than Doubled in 2010." *Ericsson Annual Report* 2010.

_____. "LTE Rollout for AT&T in the US." News release, February 10, 2010. http://www.ericsson.com/thecompany/press/releases/2010/02/1382917.

European Commission (EC). "Bilateral Trade Relations: United States," n.d. http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/united-states/ (accessed March 31, 2011).

_____. "Summaries of EU Legislation," June 8, 2009. http://europa.eu/legislation_summaries/internal_market/single_market_for_goods/motor_vehicles/interactions_industry_policies/l21061_en.htm .

International Monetary Fund (IMF). "World Economic Outlook: Recovery, Risk, and Rebalancing." World Economic Outlook Update. Washington, DC: IMF, October 2010. http://www.imf.org/external/pubs/ft/weo/2011/update/01/index.htm.

Oil & Gas Journal. "Refining Report," March 7, 2011.

Organisation for Economic Co-Operation and Development (OECD). *OECD Economic Outlook* 2010, no. 2 (December 2010). http://www.oecd-ilibrary.org/economics/oecd-economic-outlook-volume-2010-issue-2_eco_outlook-v2010-2-en.

_____. *OECD Economic Surveys: Euro Area 2010.* OECD, December 2010. http://www.oecd-ilibrary.org/economics/oecd-economic-surveys-euro-area-2010_eco_surveys-euz-2010-en.

Quattroworld. "Audi Shatters All-time U.S. Sales Record in 2010." January 4, 2011. http://www.quattroworld.com/audi-news/audi-shatters-all-time-u-s-sales-record-in-2010-brand-expects-momentum-to-continue-into-2011/.

Ricciuti, Alex. "BMW Tops Mercedes and Audi in 2010 Passenger Car Sales." WorldCarFans.com, January 11, 2011. http://www.worldcarfans.com/111011130401/bmw-tops-mercedes-and-audi-in-2010-passenger-car-sales.

India

George S. Serletis
(202) 205-3315
george.serletis@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $6.6 billion (100 percent) to $13.2 billion
U.S. exports: Increased by $1.8 billion (12 percent) to $16.4 billion
U.S. imports: Increased by $8.4 billion (40 percent) to $29.6 billion

The U.S. trade deficit with India doubled to a record $13.2 billion in 2010 (table IN.1) as U.S. imports increased more in volume and at a faster pace, than did than U.S. exports. Nonetheless, growth in both exports and imports was widely dispersed. U.S. exports to India in 2010 rose in most major industry sectors, except for transportation equipment. Similarly, U.S. imports from India increased by double-digit rates in all major commodity sectors, except energy-related products, which grew by over 400 percent. On the other hand, a substantial share of the growth, particularly in U.S. imports, was concentrated in just a handful of products that included gemstones, petroleum, and medicinal chemicals. U.S. merchandise trade with India increased by $10.2 billion (28 percent) to $46.0 billion in 2010, which made India the 10th-largest U.S. trading partner.[1] Growth in the U.S. GDP (nearly 3 percent) and the continued expansion of the Indian economy (9 percent) in 2010 contributed to a rise in bilateral trade in most major merchandise sectors.[2]

U.S. Exports

India was the 17th-largest U.S. export market by value in 2010 (unchanged from 2009). In 2010, U.S. exports to India grew more slowly (12 percent) than total U.S. exports (20 percent).[3] Leading U.S. exports to India in 2010 were inputs that supplied the country's expanding economy. These included chemicals and related products, at $3.8 billion (led by fertilizers, organic and inorganic chemicals, and plastics), and minerals and metals, at $3.2 billion (primarily gold and gemstones), which together accounted for 42 percent of the total. Other leading export sectors, accounting for 37 percent of U.S. shipments, were transportation equipment, at $2.5 billion (led by aircraft and parts and construction and mining equipment); electronic equipment, at $2.2 billion (led by measuring devices, medical, and telecommunications equipment); and machinery, at $1.5 billion (which included a vast assortment of items).[4]

An important factor in the growth of U.S. exports to India was the 83 percent ($536 million) increase in unrefined and refined gold in 2010 (table IN.2). Although global gold prices—which rose by 26 percent during 2010—accounted for some of the increase,[5] robust demand from India's jewelry industry boosted export quantities by 50 percent. India's jewelry industry is one of the world's leading centers for jewelry manufacturing

[1] Up from the 14th-largest trading partner in 2009. Compiled from official statistics of the U.S. Department of Commerce.
[2] The U.S. economy expanded by 2.8 percent in 2009. BEA, *National Income and Product Accounts*; EIU, India database.
[3] Based on official statistics of the U.S. Department of Commerce.
[4] Based on official statistics of the U.S. Department of Commerce.
[5] Based on statistics of the London Bullion Market Association.

TABLE IN.1 India: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	363	465	481	673	799	126	18.7
Forest products	239	378	460	412	645	233	56.6
Chemicals and related products	1,849	2,354	4,941	3,286	3,827	542	16.5
Energy-related products	414	429	933	996	1,161	165	16.5
Textiles and apparel	101	101	114	114	141	27	23.8
Footwear	7	4	6	5	4	-1	-27.5
Minerals and metals	902	1,981	2,868	2,176	3,159	983	45.2
Machinery	783	1,111	1,321	1,217	1,467	250	20.5
Transportation equipment	2,115	6,883	3,585	3,280	2,467	-812	-24.8
Electronic products	1,859	2,139	2,057	1,985	2,163	178	9.0
Miscellaneous manufactures	191	191	228	169	200	31	18.1
Special provisions	200	273	346	315	360	45	14.2
Total	9,025	16,309	17,340	14,629	16,394	1,765	12.1
U.S. imports of merchandise for consumption:							
Agricultural products	1,261	1,320	1,629	1,314	1,806	492	37.4
Forest products	109	134	145	117	148	31	26.7
Chemicals and related products	2,230	2,952	4,148	3,949	5,263	1,315	33.3
Energy-related products	287	767	349	437	2,329	1,892	432.8
Textiles and apparel	5,568	5,611	5,583	4,991	5,833	842	16.9
Footwear	155	164	188	164	180	15	9.3
Minerals and metals	5,816	6,424	7,534	5,136	7,714	2,579	50.2
Machinery	1,248	1,476	1,575	1,213	1,484	271	22.3
Transportation equipment	755	891	1,094	826	1,159	333	40.4
Electronic products	896	865	1,166	964	1,317	352	36.5
Miscellaneous manufactures	3,021	2,915	2,121	1,816	2,062	246	13.5
Special provisions	327	337	334	300	319	19	6.4
Total	21,674	23,857	25,866	21,228	29,614	8,387	39.5
U.S. merchandise trade balance:							
Agricultural products	-898	-855	-1,148	-641	-1,007	-366	-57.0
Forest products	131	244	316	295	498	202	68.4
Chemicals and related products	-381	-598	792	-663	-1,436	-773	-116.5
Energy-related products	127	-338	584	559	-1,168	-1,727	[a]
Textiles and apparel	-5,467	-5,510	-5,470	-4,877	-5,692	-815	-16.7
Footwear	-148	-160	-182	-159	-176	-17	-10.5
Minerals and metals	-4,915	-4,443	-4,666	-2,959	-4,555	-1,596	-53.9
Machinery	-465	-365	-254	4	-17	-21	[a]
Transportation equipment	1,360	5,991	2,491	2,454	1,308	-1,146	-46.7
Electronic products	963	1,274	891	1,021	846	-175	-17.1
Miscellaneous manufactures	-2,830	-2,724	-1,893	-1,647	-1,863	-215	-13.1
Special provisions	-127	-64	12	15	41	26	165.3
Total	-12,649	-7,548	-8,526	-6,598	-13,220	-6,622	-100.4

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

TABLE IN.2 India: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Minerals and metals:							
Unrefined and refined gold (MM020A)	([a])	373	497	643	1,179	536	83.4
Natural and synthetic gemstones (MM019)	241	510	1,239	502	855	353	70.4
Coal, coke, and related chemical products (EP003)	320	284	731	775	904	129	16.6
Newsprint (FP012)	([a])	21	110	20	135	115	568.7
Decreases:							
Aircraft, spacecraft, and related equipment (TE013)	1,510	5,955	2,555	2,166	1,213	-953	-44.0
All other	6,953	9,165	12,208	10,523	12,108	1,585	15.1
Total	9,025	16,309	17,340	14,629	16,394	1,765	12.1
U.S. IMPORTS:							
Increases:							
Natural and synthetic gemstones (MM019)	3,385	3,824	4,022	3,178	5,327	2,149	67.6
Petroleum products (EP005)	277	749	345	419	2,314	1,895	452.1
Medicinal chemicals (CH019)	814	1,352	2,018	2,192	3,136	944	43.1
All other	17,198	17,932	19,481	15,439	18,837	3,398	22.0
Total	21,674	23,857	25,866	21,228	29,614	8,387	39.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

[a]Less than $500,000.

and the largest market for gold jewelry.[6] Similarly, the value of U.S. gemstone exports to India, primarily loose worked diamonds, increased by $353 million (70 percent) to $855 million in 2010, while quantities increased by 35 percent.[7] Shifts in these products reflect growth in the Indian jewelry sector, which has expanded rapidly in the last 15 years.

Rising Indian jewelry demand is being driven both by an increase in disposable income, reflecting the growth of India's middle class, and by the "long tradition of jewelry's centrality in [the] daily life" of India.[8]

Other favorable shifts in U.S. exports to India included an increase in both the value and the quantity of U.S. exports of coal and coal chemicals in 2010. By value, these exports expanded 17 percent to $904 million; by quantity, they increased by nearly 30 percent, reaching 2.0 million short tons.[9] Most of the increase was accounted for by coke and certain other carbonaceous materials used in steel production and iron smelting. Usually India imports much of its supply of commodities from Australia, however floods in Queensland all but shut down Australian exports in the last quarter of 2010; therefore, India turned to the United States for its needs.[10]

On the negative side, U.S. exports to India of aircraft and related equipment fell by 44 percent to $1.2 billion. In 2010, Boeing delivered just 7 new commercial aircraft to Indian airlines, compared to 15 in 2009.[11]

U.S. Imports

The United States was one of India's leading export markets in 2010. The value of U.S. imports of Indian goods reached $29.6 billion in 2010, making India the United States' 12th-largest foreign supplier.[12] The rebound in U.S. economic growth in 2010 contributed to making the 40 percent increase in U.S. imports from India that year the largest for any single year during 2006–10.

The increase in U.S. imports from India was led by gemstones, primarily cut diamonds.[13] U.S. imports of diamonds from India rose by 68 percent in value to $5.3 billion, and by 34 percent in quantity to 9.2 million carats.[14] The U.S. economic recovery in 2010 fueled a rise in demand for diamonds from all sources, including India, which generally supplies smaller carat stones. In addition, U.S. diamond stocks were not replenished during the recession in 2009; thus, when the U.S market recovered, a portion of the increase in imports in 2010 was to restore normal inventories.[15]

---

[6] See "Precious Metals and Non-numismatic Coins" write-up.

[7] Based on official statistics of the U.S. Department of Commerce. See the India section of ITC, *Shifts in U.S. Merchandise Trade 2009,* 2010, for an additional discussion of U.S.-India bilateral trade in diamonds.

[8] Adler, "India's Jewelry: Soaring Sales Attest to Power of Vast Disposable Income," November 13, 2010.

[9] Official statistics of the U.S. Department of Energy.

[10] U.S. Department of Energy, "Issues in Trade: U.S. Picks Up Slack Following Queensland Floods," First Quarter Report, 2011.

[11] Boeing, Order and Deliveries database.

[12] GTIS, World Trade Atlas database (accessed April 8, 2010).

[13] The United States is India's largest diamond market, accounting for about 60 percent of Indian diamond exports. *Times of India*, "Gems & Jewelry Exports the US Increase by 20 %," November 13, 2010.

[14] Based on official statistics of the U.S. Department of Commerce.

[15] U.S. industry representative, telephone interview by USITC staff, March, 24, 2011.

Similarly, U.S. imports of petroleum products from India increased in both value and quantity. Nearly all of these imports were motor fuel blending stocks, and the price tracked upward with U.S. crude prices. At the same time, the value of U.S. petroleum imports from India rose by $1.9 billion, while the quantity of these imports rose from 5.2 million barrels in 2009 to about 15.1 million barrels in 2010. [16] This represented about 0.4 percent of total U.S. imports of petroleum products and about 1 percent of U.S. imports of motor fuel blending stocks. In addition to the increased petroleum demand brought about by economic growth, the increase in quantity is also related to India's efforts (with the fifth-largest refinery capacity in the world) to become a significant exporter of petroleum products. During 2010, when French production was shut down due to strikes, India supplied much of the European demand that was usually met by France. India also transshipped petroleum through the Netherlands to the United States to make up for decreased French supplies.[17]

U.S. imports of medicinal chemicals from India, primarily pharmaceuticals in pill or liquid form, increased by $944 million in 2010. These products included a wide variety of generic goods and reflected the continuing shift of generic pharmaceutical manufacturing to India from the United States and Europe.[18]

[16] Official statistics of the U.S. Department of Energy.

[17] U.S. Department of Energy, *Country Analysis Brief:* India, February 2011.

[18] In addition to India, generic pharmaceutical manufacturing is also being established in China. American Chemistry Council, Guide to the Business of Chemistry 2009.

Bibliography: India

Adler, Claire. "India's Jewelry: Soaring Sales Attest to Power of Vast Disposable Income." *Financial Times*, November 13, 2010.

American Chemistry Council. *Guide to the Business of Chemistry*, 2009.

Boeing Company. Orders and Deliveries database. http://active.boeing.com/commercial/orders/index.cfm?content=userdefinedselection.cfm&pageid=m15527 (accessed March 28, 2011).

Economist Intelligence Unit (EIU). *Country Reports: India.* March 2011 (fee required).

———. *Country Reports: United States*. March 2011 (fee required).

Global Trade Information Service, Inc. (GTIS). World Trade Atlas database (accessed April 8, 2010).

London Bullion Market (LBM) Association. "Gold Fixings." http://www.lbma.org.uk/pages/index.cfm?page_id=53&title=gold_fixings (accessed April 8, 2010).

Times of India. "Gems & Jewelry Exports to the US Increase by 20 %," November 13, 2010.

U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). *National Income and Product Accounts Gross Domestic Product: Fourth Quarter and Annual 2010 (Third Estimate) Corporate Profits: Fourth Quarter and Annual 2010.* News Release: Gross Domestic Product (GDP) and Corporate Profits. http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm (accessed April 7, 2011).

USDOC. U.S. Census Bureau (Census). Official U.S. trade statistics. http://www.census.gov/foreign-trade/download/dvd/index.html#merch (accessed March 23, 2011).

U.S. Department of Energy. "Issues in Trade: U.S. Picks Up Slack following Queensland Floods." First Quarter Report, 2011.

U.S. Department of Energy. *Country Analysis Brief: India*, February 2011.

Japan

Andrew S. David
(202) 205-3368
andrew.david@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $15.3 billion (31 percent) to $64.2 billion
U.S. exports: Increased by $8.6 billion (18 percent) to $55.7 billion
U.S. imports: Increased by $23.9 billion (25 percent) to $119.9 billion

In 2010, U.S. imports from Japan outpaced exports by $64.2 billion, leading to a 31 percent increase in the bilateral trade deficit (table JA.1). Japan remained the United States' fourth-largest trading partner, with U.S. imports from Japan rising faster than total U.S. imports from all countries and U.S. exports to Japan rising more slowly than total U.S. exports.

U.S. trade with Japan increased across all sectors during 2009–10. The value of U.S. exports to Japan increased primarily as a result of rising personal consumption in Japan,[1] expanding Japanese production and private capital investment,[2] higher Japanese demand for medical devices and pharmaceuticals, Japanese regulatory changes, and price increases. The increase in the value of the yen may also have bolstered U.S. exports to Japan.[3] The rise in U.S. imports was driven primarily by higher U.S. consumer demand; increased demand by U.S. manufacturers for inputs; and heightened capital expenditures in U.S. industries such as semiconductors.[4]

U.S. Exports

U.S. exports to Japan rose in value across all sectors, with the largest absolute increases occurring in exports of chemicals and related products (up $2.8 billion to $10.7 billion), electronic products (up $1.1 billion to $9.7 billion), and energy-related products (up $1.1 billion to $2.8 billion). Although total U.S. exports to Japan rose 18 percent to $55.7 billion, they remained below their 2008 level of $61.4 billion.

Rising Japanese demand for medical devices and pharmaceuticals was a key factor in the increase in U.S. exports of both electronic products and chemicals. U.S. exports of medical goods to Japan rose 22 percent (up $678 million to $3.8 billion) in 2010, contributing heavily to the 39 percent rise in U.S. exports in this sector during 2006–10

[1] Personal consumption increased in the first three quarters, but declined in the fourth quarter. MUFJ, *Forecast for the Japanese Economy*, May 2010, 2, 9–10; Mitsubishi UFJ, *Forecast for the Japanese Economy*, August 2010, 2; Mitsubishi UFJ, *Forecast for the Japanese Economy*, November 2010, 1, 6–8; Mitsubishi UFJ, *Forecast for the Japanese Economy*, February 2011, 1.

[2] Japan's index of industrial production rose from 81.1 in 2009 to 94.0 in 2010 (2005 = 100 for this index). Private capital investment increased modestly in each quarter in 2010. METI, Indices of Industrial Production (accessed March 17, 2011); Mitsubishi UFJ, *Forecast for the Japanese Economy*, May 2010, 2; Mitsubishi UFJ, *Forecast for the Japanese Economy*, August 2010, 1–2; Mitsubishi UFJ, *Forecast for the Japanese Economy*, November 2010, 1–2; Mitsubishi UFJ, *Forecast for the Japanese Economy*, February 2011, 2.

[3] The average daily exchange rate was 87.8 yen/dollar in 2010 compared to 93.7 in 2009. Federal Reserve Web site, "Foreign Exchange Rates," http://www.federalreserve.gov (accessed March 17, 2011).

[4] USDOC, "Personal Income and Outlays: January 2011," February 28, 2011, table 4; Federal Reserve, "Industrial Production and Capacity Utilization," March 17, 2011, table 11.

TABLE JA.1 Japan: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	10,342	11,750	14,715	12,249	12,934	685	5.6
Forest products	1,964	1,859	2,019	1,712	1,992	281	16.4
Chemicals and related products	8,383	8,847	9,911	7,958	10,741	2,783	35.0
Energy-related products	1,348	1,556	2,286	1,707	2,774	1,067	62.5
Textiles and apparel	629	544	548	447	514	67	14.9
Footwear	28	33	53	56	61	5	8.9
Minerals and metals	3,221	4,094	3,995	2,043	3,026	983	48.1
Machinery	5,143	4,827	4,213	2,588	2,992	405	15.6
Transportation equipment	9,620	10,605	10,693	7,095	7,535	441	6.2
Electronic products	11,538	10,794	9,791	8,521	9,662	1,140	13.4
Miscellaneous manufactures	2,034	1,915	1,862	1,480	1,657	177	12.0
Special provisions	1,346	1,271	1,348	1,221	1,838	618	50.6
Total	55,596	58,096	61,435	47,077	55,727	8,649	18.4
U.S. imports of merchandise for consumption:							
Agricultural products	573	601	685	687	716	29	4.2
Forest products	649	648	642	482	554	72	15.0
Chemicals and related products	10,739	11,065	11,315	9,985	12,013	2,028	20.3
Energy-related products	970	1,191	601	303	526	224	73.6
Textiles and apparel	737	784	765	544	658	114	20.9
Footwear	2	2	3	2	2	[a]	0.0
Minerals and metals	5,871	5,780	5,996	4,468	5,752	1,284	28.7
Machinery	19,425	17,099	17,054	11,634	15,202	3,569	30.7
Transportation equipment	71,523	69,898	65,731	40,241	52,674	12,433	30.9
Electronic products	30,838	31,542	30,734	22,916	26,756	3,840	16.8
Miscellaneous manufactures	2,026	1,969	1,835	1,620	1,720	100	6.2
Special provisions	4,718	4,349	3,752	3,121	3,365	244	7.8
Total	148,071	144,928	139,112	96,002	119,938	23,936	24.9
U.S. merchandise trade balance:							
Agricultural products	9,769	11,149	14,030	11,562	12,218	656	5.7
Forest products	1,315	1,212	1,377	1,230	1,438	208	16.9
Chemicals and related products	-2,356	-2,218	-1,404	-2,028	-1,272	756	-37.2
Energy-related products	378	365	1,685	1,404	2,247	844	60.1
Textiles and apparel	-108	-240	-217	-97	-144	-47	48.5
Footwear	26	31	50	54	59	5	9.3
Minerals and metals	-2,650	-1,687	-2,001	-2,425	-2,726	-301	12.4
Machinery	-14,282	-12,272	-12,841	-9,046	-12,210	-3,164	35.0
Transportation equipment	-61,903	-59,293	-55,038	-33,146	-45,138	-11,992	36.2
Electronic products	-19,300	-20,748	-20,943	-14,395	-17,095	-2,700	18.8
Miscellaneous manufactures	8	-54	27	-140	-62	77	-55.0
Special provisions	-3,372	-3,079	-2,404	-1,900	-1,527	374	-19.7
Total	-92,475	-86,832	-77,679	-48,926	-64,211	-15,286	31.2

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Less than $500,000.

(up $1.1 billion) (table JA.2). Similarly, U.S. exports of medicinal chemicals rose 26 percent (up $680 million to $3.3 billion) in 2010, an important part of the 58 percent increase in U.S. exports of these goods during 2006–10 (up $1.2 billion). Japan has a rapidly aging population—more than one-half of Japan's health care spending was devoted to those over age 65 in 2007—and it is the world's second-largest pharmaceutical market, as well as its third-largest market for medical devices.[5] Japan's market for medical devices is highly dependent upon imports, which account for about 70 percent of the market.[6] For medicinal chemicals, regulatory changes in Japan (e.g., reduced approval times for new drugs) also contributed to the growth in U.S. exports.[7]

The increase in U.S. chemical exports was also a result of a sharp rise in exports of certain organic chemicals (up $724 million or 141 percent to $1.2 billion), particularly the gasoline additive ethyl tertiary-butyl ether (ETBE). ETBE is made from ethanol, and fuel producers are adding it to gasoline to help meet Kyoto Protocol greenhouse gas emission requirements.[8]

The substantial increase in U.S. exports of energy-related products reflects a combination of petroleum price increases, tightness in the international coal market due to supply disruptions, and a rise in steel production in Japan.[9] Petroleum products (up $448 million to $954 million) and coal, coke, and related chemical products (up $357 million to $536 million) accounted for the largest increases in U.S. exports of energy-related products.[10] The United States primarily exports petroleum coke, which is used in steel or foundry products production or as a catalyst, and coking coals, which are also used in the production of steel and foundry products.

U.S. Imports

U.S. imports from Japan increased in all sectors, with the largest growth in transportation equipment imports (up $12.4 billion to $52.7 billion), electronic products (up $3.8 billion to $26.8 billion), and machinery (up $3.6 billion to $15.2 billion). However, imports in these three sectors remained below 2008 levels.

U.S. imports of motor vehicles and parts rose in response to recovering demand in the domestic market. U.S. vehicle sales increased from 10.6 million to 11.8 million units (11 percent) during 2009–10, which supported increases in both vehicle imports from Japan and domestic production; the latter also contributed to a rise in parts imports from

[5] JETRO, *Attractive Sectors: Medical Care*, September 2009; EIU and GE, *From Silver to Gold*, June 7, 2010, 13; EIU, *Japan: Healthcare and Pharmaceuticals Report*, February 21, 2011.

[6] Munakata, "Japan's Medical Device Makers," September 13, 2010.

[7] EIU, *Japan: Healthcare and Pharmaceuticals Report*, February 21, 2011.

[8] Hitchings and Peckham, "All Japanese Refiners Blending ETBE by End-2010," January 12, 2010; Kovac, "Japan Jumps on the ETBE Bandwagon," September 4, 2006.

[9] The index of iron and steel production rose from 72.5 in 2009 to 93.8 in 2010 (2005 = 100 for this index). METI, *Indices of Industrial Production (Preliminary Report)*, January 31, 2011, 7; official statistics of the USDOE; USDOE, "Short-term Energy Outlook," March 8, 2011, 8–9; USDOE Website, http://www.eia.doe.gov/todayinenergy/detail.cfm?id=150 (accessed March 22, 2011).

[10] See the "Petroleum Products" and "Coal, Coke, and Related Chemical Products" sections of the "Energy Products" chapter for more information.

TABLE JA.2 Japan: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Chemicals and related products:							
Certain organic chemicals (CH006)	717	705	648	514	1,237	724	140.7
Medicinal chemicals (CH019)	2,077	2,035	2,286	2,613	3,292	680	26.0
Medical goods (EL022)	2,731	2,834	3,073	3,111	3,789	678	21.8
Energy-related products:							
Petroleum products (EP005)	512	564	957	506	954	448	88.5
Coal, coke, and related chemical products (EP003)	71	57	366	179	536	357	199.4
All other	49,486	51,900	54,105	40,151	45,917	5,766	14.4
Total	55,594	58,096	61,435	47,074	55,725	8,651	18.4
U.S. IMPORTS:							
Increases:							
Transportation equipment:							
Motor vehicles (TE009)	44,609	44,965	42,407	24,818	33,142	8,323	33.5
Certain motor-vehicle parts (TE010)	8,612	8,257	7,339	5,232	7,069	1,837	35.1
Internal combustion piston engines, other than for aircraft (TE002)	5,111	4,397	4,328	2,334	3,482	1,149	49.2
Semiconductor manufacturing equipment (MT019A)	2,375	3,406	2,930	2,308	3,758	1,450	62.8
Electronic products:							
Semiconductors and integrated circuits (EL015)	3,264	3,393	3,336	2,331	3,300	968	41.5
Measuring, testing, and controlling instruments (EL025)	2,447	2,578	2,511	1,738	2,294	556	32.0
Consumer electronics (EL003)	5,677	5,404	4,823	3,113	3,647	534	17.1
Decreases:							
Motorcycles and mopeds (TE011A)	3,069	2,516	2,226	1,271	746	-525	-41.3
Electric motors, generators, and related equipment (MT023)	1,341	1,425	1,844	1,793	1,393	-399	-22.3
All other	71,566	68,587	67,367	51,064	61,106	10,043	19.7
Total	148,071	144,928	139,112	96,002	119,938	23,936	24.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

Japan.[11] Imports of motor vehicles from Japan increased by 34 percent (up $8.3 billion to $33.1 billion) in 2010, imports of motor vehicle parts rose by 35 percent (up $1.8 billion to $7.1 billion), and imports of internal combustion piston engines (excluding those used in aircraft) grew by 49 percent (up $1.1 billion to $3.5 billion).

The $3.8 billion increase in U.S. imports of electronic products from Japan was driven by a $1.0 billion rise in semiconductor imports, as well as import increases across a wide range of other products in 2010. During that year, the global semiconductor industry grew substantially as a result of an upturn in global economic activity: global sales were up 31.8 percent over 2009, and sales in the Americas rose faster than in any other region (up 39 percent).[12] As a result, U.S. imports from Japan, a major global producer, rose significantly.[13] After semiconductors, the next largest increases in electronic product imports were of measuring, testing, and controlling instruments ($556 million to $2.3 billion),[14] which grew due to greater demand in U.S. mining, utility, and manufacturing sectors. Imports of consumer electronics also rose (up $534 million or 17 percent) to $3.6 billion, most likely due to higher U.S. personal consumption.[15]

Semiconductor manufacturing equipment (SME) accounted for the largest share (63 percent or $1.5 billion) of the $3.6 billion increase in machinery imports[16] in 2010. U.S.-based firms—which maintain significant portions of their semiconductor production in the United States—increased their spending on SME as a result of greater demand for semiconductors.[17] U.S. firms sourced much of this new equipment from Japan which, along with the United States, is one of the two major producers of SME and makes certain types of SME not produced by U.S. firms.

U.S. imports of motorcycles and mopeds (down $525 million or 41 percent to $746 million) and electric motors, generators, and related equipment (down $399 million or 22 percent to $1.4 billion) accounted for the largest decreases in U.S. imports from Japan in 2010. The drop in imports of motorcycles and mopeds resulted primarily from a shrinking domestic motorcycle market, which decreased every year during 2006–10 but contracted particularly severely in 2009 and 2010 as a result of the recession.[18] A decline in imports of wind-powered generating sets from Japan (down from $581 million in 2009 to $12 million in 2010) was the primary factor behind the decrease in imports of electric motors, generators, and related equipment. Imports declined because of a decrease in the size of the wind turbine market, fewer new orders for Mitsubishi wind turbines, and the fact that most Mitsubishi wind turbines installed in 2010 were imported in 2009.[19]

---

[11] Imports of motor vehicles from Japan rose at a slightly slower pace than overall imports, possibly because of a slightly lower market share for Japanese producers. Ward's, U.S. Car and Truck Sales, 1931-2010 (accessed March 17, 2011); Ward's, U.S. Vehicle Sales Market Share by Company, 1961-2010 (accessed March 22, 2011); Ward's, North America Car and Truck Production, 1951–2010 (accessed March 17, 2010).

[12] McClean, Matas, and Yancey, *The McClean Report, 2011 Edition*, 2011, 2.

[13] See the "Semiconductors and Integrated Circuits" section in the "Electronic Products" chapter for more information.

[14] See the "Measuring, Testing, and Controlling Instruments" section in the "Electronic Products" chapter for more information.

[15] USDOC, "Personal Income and Outlays: January 2011," February 28, 2011, table 4.

[16] See the "Machinery" chapter for more information.

[17] McClean, Matas, and Yancey, *The McClean Report, 2011 Edition*, 2011, 4.10.

[18] DOT, "National Transportation Statistics," table 1-12 (accessed March 22, 2011); Madson, "Motorcycle Sales Down 40.8% Says MIC," January 21, 2010; Madson, "Motorcycle Sales Down 15.8% in 2010," January 20, 2011.

[19] AWEA, *U.S. Wind Industry Annual Market Report*, 2010, 29; AWEA, *U.S. Wind Industry Year-End 2010*, January 2011, 6–12; Bloomberg New Energy Finance, "Mitsubishi Heavy Wins," March 1, 2011.

Bibliography: Japan

American Wind Energy Association (AWEA). *U.S. Wind Industry Annual Market Report: Year Ending 2009*, 2010.

———. *U.S. Wind Industry Year-End 2010 Market Report*, January 2011. http://www.awea.org/learnabout/publications/loader.cfm?csModule=security/getfile&PageID=5083.

Bloomberg New Energy Finance. "Mitsubishi Heavy Wins Order for Wind Turbines from AES Corp." Energy NewsWatch, March 1, 2011.

Economist Intelligence Unit (EIU). *Japan: Healthcare and Pharmaceuticals Report*, February 21, 2011. http://viewswire.eiu.com.

EIU and General Electric Co. (GE). *From Silver to Gold: The Implications of Japan's Ageing Population*, June 7, 2010. http://graphics.eiu.com/upload/ENGLISH%20FINAL%20DRAFT_LR_05312010.pdf.

Federal Reserve. "Industrial Production and Capacity Utilization," March 17, 2011. http://www.federalreserve.gov/releases/g17/current.

Hitchings, Monique A., and Jack Peckham. "All Japanese Refiners Blending ETBE by End-2010." *Global Refining & Fuels Today* 2, no. 7 (January 12, 2010), 5.

Kovac, Matt. "Japan Jumps on the ETBE Bandwagon." *ICIS Chemical Business* 1, no. 33 (September 4, 2006), 13.

Japan External Trade Organization (JETRO). *Attractive Sectors: Medical Care*, September 2009. http://www.jetro.go.jp/en/invest/attract/medical/medical_0909.pdf.

Madson, Bart. "Motorcycle Sales Down 15.8% in 2010." *Motorcycle USA*, January 20, 2011. http://www.motorcycle-usa.com/2/8987/Motorcycle-Article/Motorcycle-Sales-Down-15-8--in-2010.aspx.

———. "Motorcycle Sales Down 40.8% Says MIC." *Motorcycle USA*, January 21, 2010. http://www.motorcycle-usa.com/2/5588/Motorcycle-Article/Motorcycle-Sales-Down-40-8--Says-MIC.aspx.

McClean, Bill, Brian Matas, and Trevor Yancey. *The McClean Report, 2011 Edition: A Complete Analysis and Forecast of the Integrated Circuit Industry*. Scottsdale, AZ: IC Insights, Inc., 2011.

Ministry of Economy, Trade and Industry (METI). Indices of Industrial Production: Historical Data. http://www.meti.go.jp/english/statistics/tyo/iip/h2afdlde.html (accessed March 17, 2011).

———. Economic and Industrial Policy Bureau. Research and Statistics Department. *Indices of Industrial Production (Preliminary Report): December 2010*, January 31, 2011.

Mitsubishi UFJ Research and Consulting. *Forecast for the Japanese Economy: Moving toward Self-Sustaining Growth in Fiscal 2011 after Adjustments in the Second Half of Fiscal 2010*, May 2010. http://www.murc.jp/english/publ/forecast/index.html.

———. *Forecast for the Japanese Economy: Moving toward Self-Sustaining Growth in Fiscal 2011 after Adjustments in the Second Half of Fiscal 2010,* August 2010. http://www.murc.jp/english/publ/forecast/index.html.

———. *Forecast for the Japanese Economy: Moving toward Self-Sustaining Growth in Fiscal 2011 after Adjustments in the Second Half of Fiscal 2010*, November 2010. http://www.murc.jp/english/publ/forecast/index.html.

———. *Forecast for the Japanese Economy: Escaping from the Temporary Lull and Moving Gradually toward a Stronger Recovery Trend*, February 2011. http://www.murc.jp/english/publ/forecast/index.html.

Munakata, Seiji. "Japan's Medical Device Makers in Race to Catch Global Giants." *Nikkei*, September 13, 2010. http://e.nikkei.com. (fee required).

U.S. Department of Commerce (USDOC). "Personal Income and Outlays: January 2011," February 28, 2011. http://www.bea.gov/newsreleases/national/pi/2011/pdf/pi0111.pdf.

U.S. Department of Transportation (USDOT). "National Transportation Statistics." http://www.bts.gov/publications/national_transportation_statistics/html/table_01_12.html (accessed March 22, 2011).

U.S. Department of Energy (USDOE). Energy Information Administration (EIA). "Short-term Energy Outlook," March 8, 2011. http://www.eia.doe.gov/steo.

Ward's. U.S. Car and Truck Sales, 1931–2010. http://wardsauto.com/keydata (accessed March 17, 2011).

———. U.S. Vehicle Sales Market Share by Company, 1961–2010. http://wardsauto.com/keydata (accessed March 22, 2011).

———. North America Car and Truck Production, 1951–2010. http://wardsauto.com/keydata (accessed March 17, 2010).

Republic of Korea

Jeff Clark
(202) 205-3318
jeffrey.clark@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Decreased by $0.6 billion (5 percent) to $11.1 billion
U.S. exports: Increased by $9.8 billion (36 percent) to $36.8 billion
U.S. imports: Increased by $9.1 billion (24 percent) to $47.9 billion

The U.S. trade deficit with The Republic of Korea (Korea) fell by $0.6 billion (5 percent) in 2010.[1] Both exports and imports in every major industry/commodity sector increased as part of the recovery from the global economic downturn in 2008 and 2009. The only sector to register less than a double-digit increase was U.S. imports of footwear (table KR.1). U.S. exports to Korea grew faster than U.S. imports from that country because the Korean economy declined less than the U.S. economy during the economic downturn and recovered from it sooner.

U.S. Exports

After a decline in 2009, U.S. exports to Korea increased to record levels in 2010, rising by $9.8 billion (36 percent). Korea was the seventh-largest U.S. export market. The increase in U.S. exports to Korea was the largest in percentage terms of any U.S. trading partner and almost double the increase in U.S. exports to the world (20 percent).

The largest increase in U.S. exports occurred in machinery, led by the semiconductor manufacturing equipment (SME) industry (table KR.2). The semiconductor industry had reduced its investments in capital equipment during the 2008–09 global recession. In response to the 32 percent increase in global semiconductor sales in 2010,[2] global spending on SME doubled in 2010.[3] Companies such as Samsung and Hynix, with significant facilities for manufacturing dynamic random-access memory (DRAM) chips in Korea, imported much of their new SME from the United States.[4]

U.S. Imports

Like U.S. exports to Korea, U.S. imports from Korea dipped in 2009 before rising to record levels in 2010. The recovering U.S. economy spurred greater demand for computers and semiconductor components, as well as for transportation equipment and household appliances.

[1] The U.S. trade deficit with the world and with 8 of its 10 largest trading partners increased in 2010. Korea and Brazil were the exceptions.

[2] Semiconductor Industry Association, "Global Semiconductor Sales," January 31, 2011.

[3] McClean, Matas, and Yancey, *The McClean Report*, 2011, 4.1.

[4] McClean, Matas, and Yancey, *The McClean Report*, 2011, 4.9 and 4.20. Because the United States and Japan are the two major SME manufacturers in the world, U.S. SME exports generally reflect global demand for semiconductors. USITC, *Shifts in U.S. Merchandise Trade 2007*, 2008, 205–8.

TABLE KR.1 Korea: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	3,279	3,904	5,859	4,199	5,626	1,427	34.0
Forest products	683	814	863	765	938	173	22.6
Chemicals and related products	4,336	5,193	4,879	4,347	6,016	1,669	38.4
Energy-related products	1,081	1,073	1,412	1,415	1,779	364	25.7
Textiles and apparel	200	259	273	255	381	126	49.4
Footwear	42	40	49	43	57	14	32.6
Minerals and metals	1,823	2,723	3,385	2,658	3,176	518	19.5
Machinery	4,699	5,047	4,145	3,454	5,659	2,205	63.8
Transportation equipment	5,034	5,217	4,304	3,238	4,704	1,466	45.3
Electronic products	8,423	7,264	6,426	5,437	6,378	941	17.3
Miscellaneous manufactures	759	951	916	677	1,101	424	62.6
Special provisions	436	526	562	584	1,025	441	75.5
Total	30,795	33,011	33,073	27,072	36,840	9,762	36.1
U.S. imports of merchandise for consumption:							
Agricultural products	343	363	391	393	450	57	14.5
Forest products	601	559	527	373	493	120	32.2
Chemicals and related products	3,163	3,159	3,611	2,706	4,059	1,353	50.0
Energy-related products	1,863	2,341	1,504	1,103	1,654	550	50.0
Textiles and apparel	2,073	1,740	1,496	1,048	1,166	118	11.3
Footwear	26	33	29	18	19	1	5.6
Minerals and metals	3,611	3,328	4,174	2,387	3,466	1,079	45.2
Machinery	3,958	4,644	4,835	4,786	5,675	890	18.6
Transportation equipment	13,273	12,587	11,315	9,059	11,397	2,339	25.8
Electronic products	14,332	15,076	17,222	15,662	18,011	2,349	15.0
Miscellaneous manufactures	587	630	533	450	520	70	15.6
Special provisions	884	909	1,050	785	1,002	217	27.6
Total	44,714	45,368	46,687	38,770	47,912	9,142	23.6
U.S. merchandise trade balance:							
Agricultural products	2,936	3,541	5,468	3,806	5,175	1,369	36.0
Forest products	82	255	335	392	445	53	13.5
Chemicals and related products	1,174	2,034	1,268	1,641	1,956	315	19.2
Energy-related products	-782	-1,268	-92	312	125	-187	-59.9
Textiles and apparel	-1,874	-1,481	-1,223	-794	-785	8	-1.1
Footwear	16	7	20	26	38	12	46.2
Minerals and metals	-1,788	-604	-789	272	-290	-562	[a]
Machinery	741	403	-690	-1,331	-17	1,315	-98.7
Transportation equipment	-8,240	-7,370	-7,011	-5,821	-6,694	-873	15.0
Electronic products	-5,908	-7,812	-10,796	-10,225	-11,633	-1,409	13.8
Miscellaneous manufactures	172	321	383	227	581	354	155.9
Special provisions	-448	-383	-488	-200	23	223	[a]
Total	-13,920	-12,357	-13,615	-11,695	-11,072	626	-5.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

TABLE KR.2 Korea: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Semiconductor manufacturing equipment (MT019A)	2,638	2,844	1,739	1,336	3,144	1,808	135.4
Transportation equipment:							
Aircraft, spacecraft, and related equipment (TE013)	3,463	3,267	2,249	1,823	2,406	583	32.0
Motor vehicles (TE009)	151	337	333	134	362	228	170.1
Coal, coke, and related chemical products (EP003)	523	451	655	794	1,234	440	55.4
Agricultural products:							
Cereals (AG030)	943	1,202	2,765	1,430	1,843	413	28.9
Cattle and beef (AG002)	1	118	294	213	517	304	142.7
Decreases:							
Petroleum products (EP005)	408	383	520	441	326	-115	-26.2
All other	22,667	24,409	24,520	20,903	27,005	6,102	29.2
Total	30,794	33,012	33,074	27,072	36,836	9,768	36.1
U.S. IMPORTS:							
Increases:							
Electronic products:							
Computers, peripherals, and parts (EL017)	3,120	3,130	2,639	2,372	3,849	1,477	62.3
Semiconductors and integrated circuits (EL015)	2,939	2,490	2,619	2,206	2,994	789	35.8
Transportation equipment:							
Certain motor-vehicle parts (TE010)	1,586	1,721	1,612	1,192	2,434	1,243	104.3
Motor vehicles (TE009)	9,104	8,792	7,853	6,473	6,939	466	7.2
Steel mill products (MM025)	1,813	1,499	2,207	1,105	1,727	622	56.3
Tires and tubes (CH032)	783	808	826	673	1,212	539	80.1
Petroleum products (EP005)	1,826	2,253	1,455	1,024	1,560	536	52.4
Major household appliances and parts (MT004A)	858	1,063	1,238	1,258	1,659	401	31.9
Decreases:							
Telecommunications equipment (EL002)	5,742	7,144	9,452	9,119	8,626	-493	-5.4
Fabricated structurals (MM027)	72	93	232	168	48	-120	-71.4
Industrial thermal-processing equipment and furnaces (MT003)	59	41	119	251	138	-113	-45.0
All other	16,812	16,334	16,435	12,931	16,727	3,796	29.4
Total	44,714	45,368	46,687	38,772	47,914	9,141	23.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

The largest decrease in U.S. imports from Korea was in telecommunications equipment, the product group with the highest trade value in 2008, when it surpassed motor vehicles, and in 2009. The contraction of $493 million (5 percent), in Korean telecommunications exports ran counter to the trend in U.S. imports of these products worldwide, which increased 23 percent in 2010. Imports from Korea fell due to declining sales by LG, the world's third-largest cell phone maker.[5] LG was slower than its competitors to adjust handset production to smartphones—the fastest-growing sector of the U.S. mobile phone market.[6]

The jump in U.S. imports of certain vehicle parts from Korea (from $1.2 billion in 2009 to $2.4 billion in 2010) reflected the continued growth of Korean automotive manufacturing facilities in the United States.[7] Kia opened its first manufacturing facility in the United States in late 2009, with the first vehicle coming off the West Point, GA, production line on November 16, 2009.[8] Imports of vehicle parts increased in 2010 to support this facility for its first full year of operations. Motor vehicle imports also rose as Americans increased purchases of Korean brands and bought more expensive sedans and sport-utility vehicles from Korean manufacturers.[9]

U.S. imports of household appliances from Korea increased by 32 percent to $1.7 billion, as Korean manufacturers increased their sales volume and successfully targeted high-end refrigerators and laundry appliances with more high-tech features included as standard equipment.[10] Many of the Korean models are more price-competitive than other models because they qualify for U.S. tax credits through the use of energy-efficient technology. For example, while most appliance manufacturers use a system that requires converting a rotating motion into a linear one in their compressors, LG uses a linear compressor for its refrigerators. This unique technology enables LG's refrigerators to use up to 30 percent less energy.[11]

---

[5] LG Web site, *2010 4Q Earnings Release*, 2011, 6 and 19.

[6] Park and Kim, "LG Gets Serious," February 16, 2011; *Economist*, "LG's Woes," September 23, 2010.

[7] Hyundai began producing cars at its $1.4 billion Montgomery, AL, site in 2005 and rolled its one millionth unit off the line in November 2009. Hyundai Alabama, Web site, http://www.hmmausa.com/manufacturing-plant/timeline/ (accessed April 27, 2011).

[8] Kia Motors America Web site, "Built in the USA," http://www.kia.com/#/kmmg/ (accessed April 1, 2011).

[9] Keegan, "2010 Auto Sales," January 4, 2011. Hyundai and Kia are expanding their lines into more upscale sedans and sport-utility vehicles. In addition to nudging their vehicles up the value scale by increasing the number of standard features, both automakers are introducing new, more expensive models. In 2011, Hyundai is debuting its new luxury Equus sedan as Kia is rolling out the Optima, a midsize sedan. Aukofer, "2011 Hyundai Equus," March 23, 2011; Keegan, "2010 Auto Sales," January 4, 2011. Hyundai and Kia are not wholly independent companies. Hyundai owns 38 percent of Kia Motors, and the companies are often referred to together as the Hyundai Kia Automotive Group (HKAG). Collectively, the HKAG is the fourth-largest automaker in the world. Keegan, "Hyundai Kia Automotive Group," January 3, 2011.

[10] The increase in imports of these high-end products has motivated an American manufacturer to file anti-dumping/countervailing duty cases against Korean and Mexican imports of bottom-mount combination refrigerator-freezers with the USITC. The preliminary vote in these cases (701-TA-477 and 731-TA-1180-1) is scheduled for May 13, 2011. 76 Fed. Reg. 19125-6 (April 6, 2011); Tita and Hagerty, "Whirlpool Petitions," March 30, 2011.

[11] *Appliance Design*, "Linear Compressor," June 2009, 9.

Bibliography: Republic of Korea

Appliance Design. "Linear Compressor," June 2009.

Aukofer, Frank. "2011 Hyundai Equus." *JS Online*, March 23, 2011. http://www.jsonline.com/wheels/118539219.html.

Economist. "LG's Woes: Will Hiring the Founder's Grandson Save LG Electronics?" September 23, 2010. http://www.economist.com/node/17095760.

Keegan, Matt. "2010 Auto Sales: Hyundai, Kia Bust Out." *Auto Trends Magazine*, January 4, 2011. http://www.autotrends.org/2011/01/04/2010-auto-sales-hyundai-kia-bust-out/.

Keegan, Matt. "Hyundai Kia Automotive Group: Can't Stop This?" *Auto Trends Magazine*, January 3, 2011. http://www.autotrends.org/2011/01/03/hyundia-kia-automotive-group-cant-stop-this/.

LG Web site. *2010 4Q Earnings Release*, January 26, 2011. www.lg.com/global/download/pdf/4Q-2010-Earnings-Eng-FINAL.pdf.

McClean, Bill, Brian Matas, and Trevor Yancey. *The McClean Report, 2011 Edition: A Complete Analysis and Forecast of the Integrated Circuit Industry*. Scottsdale, AZ: IC Insights, Inc., 2011.

Park, Hye-min, and Hyung-eun Kim. "LG Gets Serious about Smartphones." *JoongAng Daily*, February 16, 2011. http://joongangdaily.joins.com/article/view.asp?aid=2932255.

Semiconductor Industry Association. "Global Semiconductor Sales Hit Record $298.3 Billion in 2010." News release, January 31, 2011.

Tita, Bob, and James R. Hagerty. "Whirlpool Petitions US for Trade Probe of Samsung, LG." *FoxBusiness*, March 30, 2011. http://www.foxbusiness.com/industries/2011/03/30/whirlpool-petitions-trade-probe-samsung-lg/.

U.S. International Trade Commission (USITC), *Shifts in U.S. Merchandise Trade 2007*. Pub. no. 4044. Washington, DC USITC, 2008.

Mexico

Ruben Mata
(202) 205-3403
ruben.mata@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $26.6 billion (38 percent) to $97.2 billion
U.S. exports: Increased by $25.9 billion (25 percent) to $131.6 billion
U.S. imports: Increased by $52.5 billion (30 percent) to $228.8 billion

The U.S. merchandise trade deficit with Mexico—the United States' third-largest trading partner—widened, as growth in U.S. imports from Mexico outpaced growth in exports by $97.2 billion (table MX.1). The U.S. economy began to recover from the recession in 2010, expanding by nearly 3 percent.[1] At the same time, Mexico's economy became even more thoroughly intertwined with that of the United States, with a strong link to the U.S. business cycle; the United States accounted for approximately 80 percent of Mexico's total exports in 2010.

U.S. Exports

Mexico ranks second after Canada among U.S. export markets, with U.S. exports amounting to 32 percent of the Mexican GDP in 2010. In 2010, exports to Mexico were driven, in part, by the 5 percent expansion of the Mexican economy.[2] The two U.S. sectors that registered the largest growth in exports to Mexico in 2010, by both value and percentage, were energy-related products (up $6.5 billion or 82 percent) and transportation equipment (up $5.7 billion or 34 percent). U.S. exports of energy-related products—including petroleum products such as gasoline, distillate, and residual fuel oils—increased in both value and volume in 2010 by $6.5 billion (82 percent) to $14.5 billion in 2010; their volume rose from 117.5 million barrels in 2009 to 163.0 million barrels in 2010.[3] The steep increase in U.S. exports reflects decreased production in Mexico following the early September shutdown of the PEMEX (Mexico's state-owned petroleum company) Cadereyta refinery after an explosion and fire.[4] This refinery produced primarily gasoline as well as distillate and residual fuel oils for Mexican consumption. Increased demand in Mexico for unleaded gasoline, in particular, stimulated the increase in U.S. exports across the border.[5]

Increased U.S. exports of transportation equipment and parts principally stemmed from growth in exports of motor vehicles and certain motor vehicle parts to Mexico (table MX.2). The majority of these automotive components were primarily used in the assembly of new motor vehicles by original equipment manufacturers such as GM, Ford, Volkswagen, and Chrysler of Mexico and incorporated into finished passenger cars that were then exported to the United States. Additionally, in 2010, the government of Mexico

[1] NBER, "Business Cycle Dating Committee," September 20, 2010; Feldstein, "U.S. Growth in the Decade Ahead," January 2010, 1.
[2] CIA, "Mexico," n.d. (accessed March 21, 2011).
[3] According to official statistics of the U.S. Department of Energy, Mexico was the seventh-largest oil producer in the world in 2010.
[4] Rodriguez, "Pemex 235,000-Barrel Mexican Refinery Hit," September 7, 2010.
[5] Diaz, "Mexico's Pemex Restarts Cadereyta Refinery Coker," September 14, 2010.

TABLE MX.1 Mexico: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	11,066	12,876	16,112	12,911	14,594	1,683	13.0
Forest products	4,258	4,312	4,837	4,162	4,891	728	17.5
Chemicals and related products	20,573	21,385	22,882	20,313	23,869	3,556	17.5
Energy-related products	5,925	7,015	11,329	7,948	14,471	6,523	82.1
Textiles and apparel	4,551	3,947	3,718	3,109	3,680	570	18.3
Footwear	47	44	79	63	79	17	25.4
Minerals and metals	11,635	11,896	13,492	9,603	12,450	2,847	29.6
Machinery	12,079	11,461	12,525	10,440	11,653	1,214	11.6
Transportation equipment	19,978	21,309	21,572	16,804	22,528	5,723	34.1
Electronic products	18,357	18,394	18,246	14,903	16,539	1,636	11.0
Miscellaneous manufactures	1,665	2,031	1,650	1,511	1,633	122	8.1
Special provisions	4,428	4,711	5,064	3,951	5,215	1,265	32.0
Total	114,562	119,381	131,507	105,718	131,602	25,884	24.5
U.S. imports of merchandise for consumption:							
Agricultural products	10,498	11,360	12,059	12,460	14,690	2,231	17.9
Forest products	1,559	1,584	1,457	1,201	1,369	168	13.9
Chemicals and related products	6,347	6,360	6,820	5,767	7,059	1,292	22.4
Energy-related products	32,116	33,549	42,626	24,214	33,102	8,887	36.7
Textiles and apparel	7,497	6,712	5,957	5,177	5,537	360	6.9
Footwear	274	248	255	254	319	65	25.6
Minerals and metals	13,266	13,877	14,715	12,142	16,236	4,094	33.7
Machinery	18,228	19,976	20,028	16,584	20,548	3,964	23.9
Transportation equipment	49,105	51,023	48,042	37,697	57,439	19,743	52.4
Electronic products	47,107	53,999	53,228	50,325	62,049	11,724	23.3
Miscellaneous manufactures	3,953	3,800	3,483	3,013	3,539	526	17.4
Special provisions	7,105	7,671	7,658	7,473	6,938	-536	-7.2
Total	197,056	210,159	216,328	176,307	228,824	52,518	29.8
U.S. merchandise trade balance:							
Agricultural products	568	1,516	4,053	452	-96	-548	[a]
Forest products	2,698	2,728	3,380	2,961	3,522	561	18.9
Chemicals and related products	14,226	15,025	16,062	14,546	16,810	2,264	15.6
Energy-related products	-26,191	-26,534	-31,297	-16,267	-18,631	-2,364	14.5
Textiles and apparel	-2,946	-2,765	-2,239	-2,068	-1,857	211	-10.2
Footwear	-227	-204	-176	-191	-239	-48	25.0
Minerals and metals	-1,631	-1,981	-1,223	-2,540	-3,786	-1,247	49.1
Machinery	-6,148	-8,515	-7,502	-6,144	-8,895	-2,750	44.8
Transportation equipment	-29,128	-29,715	-26,470	-20,892	-34,912	-14,019	67.1
Electronic products	-28,750	-35,605	-34,981	-35,422	-45,509	-10,087	28.5
Miscellaneous manufactures	-2,288	-1,769	-1,832	-1,502	-1,906	-404	26.9
Special provisions	-2,677	-2,959	-2,594	-3,523	-1,722	1,800	-51.1
Total	-82,493	-90,778	-84,821	-70,589	-97,222	-26,634	-37.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Not meaningful for purposes of comparison.

TABLE MX.2 Mexico: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Energy-related products:							
Petroleum products (EP005)	5,024	5,725	9,672	6,708	12,037	5,329	79.4
Natural gas and components (EP006)	724	1,134	1,402	1,000	2,054	1,053	105.3
Transportation equipment:							
Certain motor-vehicle parts (TE010)	7,130	7,724	7,932	6,788	10,113	3,325	49.0
Motor vehicles (TE009)	3,990	4,504	4,503	2,255	3,160	905	40.1
Steel mill products (MM025)	1,998	2,189	3,022	2,042	2,677	635	31.1
Decreases:							
Animal feeds (AG013)	756	878	1,162	1,098	1,048	-50	-4.5
Miscellaneous machinery (MT030)	876	798	998	831	785	-45	-5.5
Aircraft engines and gas turbines (TE001)	784	787	1,025	649	614	-35	-5.4
All other	93,281	95,641	101,790	84,347	99,115	14,768	17.5
Total	114,562	119,381	131,507	105,718	131,602	25,884	24.5
U.S. IMPORTS:							
Increases:							
Transportation equipment:							
Motor vehicles (TE009)	23,548	23,300	22,205	18,628	27,763	9,135	49.0
Certain motor-vehicle parts (TE010)	16,791	18,215	16,213	12,487	19,364	6,878	55.1
Internal combustion piston engines, other than for aircraft (TE002)	4,415	4,317	4,174	2,652	4,834	2,182	82.3
Ignition, starting, lighting, and other electrical equipment (TE007)	1,561	1,901	1,775	1,372	1,932	559	40.8
Crude petroleum (EP004)	29,195	29,848	37,629	20,962	29,152	8,190	39.1
Minerals and metals:							
Precious metals and non-numismatic coins (MM020)	2,023	1,993	2,793	4,289	6,202	1,913	44.6
Steel mill products (MM025)	2,437	2,426	3,257	1,379	2,187	808	58.6
Decreases:							
Major primary olefins (CH001)	320	146	110	177	69	-109	-61.0
Shellfish (AG009)	373	407	392	376	276	-100	-26.7
Metal construction components (MM028)	307	342	444	455	368	-87	-19.0
Natural gas and components (EP006)	198	423	304	203	128	-75	-36.9
All other	115,888	126,842	127,031	113,328	136,549	23,222	20.5
Total	197,056	210,159	216,328	176,309	228,824	52,515	29.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

abolished a 40-year-old tax on new car purchases in an effort to promote sales of all types of automobiles.[6]

U.S. Imports

Mexico was the third-largest source of U.S. imports in 2010, exceeded only by Canada and China. Transportation equipment, electronic products, and energy-related products registered the three largest absolute increases in imports from Mexico in 2010 by value. The United States' and Mexico's business cycles are highly integrated, as a large share of total U.S. imports from Mexico are attributable to intra-industry trade.[7]

In 2010, U.S. imports of transportation equipment from Mexico were bolstered by increased imports of motor vehicles and certain motor-vehicle parts. The expansion of the U.S. economy that year fueled strong demand for passenger cars and light trucks that were made in Mexico; nearly 70 percent of Mexico's estimated production of 2.2 million passenger cars and light trucks was exported to the United States in 2010.[8]

U.S. imports of electronic products from Mexico in 2010 increased by 23 percent ($11.7 billion) to $62 billion. This increase reflects growing domestic demand for thin, flat-screen, high-definition televisions and other consumer electronic goods, such as Blu-ray disc players and wireless telephone sets. Major Asian (LGE) and European (North American Philips) multinational television and telephone wireless sets producers expanded production capacity in Mexico to meet changing U.S. consumer demand for next-generation television and telephone sets.[9]

The value of U.S. imports of energy-related products from Mexico—mostly crude petroleum—rose by $8.9 billion (37 percent) to $33.1 billion, reflecting higher petroleum prices. The average price of crude petroleum increased by 31 percent to $73.80 per barrel in 2010, while the quantity of U.S. imports of crude petroleum increased only slightly, going from 398.5 million barrels in 2009 to 416.1 million barrels in 2010.[10] The United States is Mexico's primary export market for crude petroleum, and the level of U.S. imports from Mexico generally fluctuates according to demand changes. The slight quantity increase in U.S. crude petroleum imports from Mexico can partly be attributed to factors related to the loss of the Deepwater Horizon rig in the Gulf of Mexico in 2010.[11]

[6] Business Monitor International, "Mexico: Auto Report," 2011, 6.
[7] Clark, "Intra-Industry Specialization in United States-Mexico Trade," 2010.
[8] Clark, " Intra-Industry Specialization in United States-Mexico Trade," 2010.
[9] Datamonitor, "LG Electronics, Inc., Company Profile," 8.
[10] Business Monitor International, "United States Oil & Gas Report Q3," 2010, 11.
[11] Morse, "Deepwater Horizon and the Shale Gas Revolutions," 2010, 10–11.

Bibliography: Mexico

Business Monitor International. "Mexico Key Sectors: Auto Report," 2011.

———. "United States Oil & Gas Report Q3," 2010, 11.

Central Intelligence Agency (CIA). "Mexico." *The World Factbook,* n.d. https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html (accessed March 21, 2011).

Clark, Don P. "Intra-Industry Specialization in United States-Mexico Trade," *Global Economy Journal* 10, no. 2 (2010), article 1. doi:10.2202/1524-5861.1636.

Datamonitor. "LG Electronics, Inc, Company Profile," October 14, 2010.

Diaz, Cyntia Barrera. "Mexico's Pemex Restarts Cadereyta Refinery Coker." Reuters, September 14, 2010. http://www.reuters.com/assets/2010/march25.html.

Feldstein, Martin S. "U.S. Growth in the Decade Ahead." NBER Working Paper 15685, National Bureau of Economic Research, Cambridge, MA, January 2010. http://www.nber.org/cycles/sept/2010.html.

Morse, Edward L. "Deepwater Horizon and the Shale Gas Revolution." *National Interest,* October 22, 2010, 10–11. http://www.gwpf.org/energy-news/1740-deepwater-horizon-and-the-shale-gas-revolution.pdf.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee," September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Rodriguez, Carlos Manuel. "Pemex 235,000-Barrel Mexican Refinery Hit by Explosion." *Bloomberg,* September 7, 2010. http://www.bloomberg.com/news/2010-09-07/mexico-s-pemex-confirms-refinery-explosion-at-cadereyta-near-monterrey.html.

Russia

Karen Taylor
(202) 708-4101
karen.taylor@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $7.3 billion (59 percent) to $19.5 billion
U.S. exports: Increased by $0.5 billion (10 percent) to $5.7 billion
U.S. imports: Increased by $7.8 billion (45 percent) to $25.2 billion

The U.S. trade deficit with Russia grew substantially in 2010 primarily because of a $5.5 billion (43 percent) increase in the value of imports of energy-related products, a category that accounted for close to three-fourths of total U.S. imports from Russia that year. U.S. imports of minerals and metals, as well as chemicals and related products, also rose significantly (table RU.1). Although U.S. exports of agricultural products to Russia declined, increased exports in other industrial sectors offset that decrease. Overall, total U.S. trade with Russia rebounded in 2010 from the five-year low of 2009.

In 2010, as the global economy began to recover from the recession of 2008–09, demand for commodity products also began to rebound, resulting in higher prices for Russian exports of many commodity products, especially crude petroleum products.[1] The substantial increase in the value of Russian products imported into the U.S. market worsened the U.S. trade deficit with Russia.

U.S. Exports

In 2010, U.S. exports to Russia increased for all sectors except agricultural products, which fell by $264 million (18 percent) from the previous year, primarily due to a decline in U.S. poultry exports. The decline in U.S. poultry exports (down by $447 million or 59 percent to $316 million) resulted from a Russian phytosanitary regulation that went into effect on January 1, 2010 (table RU.2). The Russian regulation prohibited imports of poultry rinsed in an antimicrobial chlorine solution, a technique common in the United States and accepted by most poultry-importing countries. The regulation effectively banned all U.S. exports of chickens to Russia during the first nine months of 2010. During the last quarter of 2010, however, some U.S. processors of poultry shifted to using antimicrobial treatments that are acceptable to Russian regulators, and U.S. chicken exports to Russia resumed.[2]

The largest absolute increase in U.S. exports in 2010 was in the chemical and related products sector, for which exports rose by $314 million (60 percent). U.S. exports of polyvinyl chloride resins (PVC) rose $135 million (500 percent) and accounted for a significant portion of this increase. As Russia began to recover from the economic downturn, the resulting expansion of industrial production boosted Russian demand for PVC, which has many industrial applications. Russian production capacity for PVC thus fell short of domestic demand, while the United States had significant excess capacity,

[1] In turn, Russia's GDP grew by 4 percent in 2010, in contrast to an 8 percent decline in 2009. USDOS, BEEA, *Background Note: Russia*, March 16, 2011.

[2] USDA, FAS, *Russian Federation: Poultry and Products Semi-annual.* March 2, 2011; Bottemiller, "Russia Agrees to Lift Ban on U.S. Poultry Imports," June 25, 2010.

TABLE RU.1 Russia: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Agricultural products	883	1,367	1,865	1,455	1,190	-264	-18.2
Forest products	30	50	77	34	53	18	55.9
Chemicals and related products	408	577	762	526	839	314	59.5
Energy-related products	48	84	116	103	187	84	81.6
Textiles and apparel	69	62	101	82	111	29	35.4
Footwear	3	4	2	1	1	(a)	50.0
Minerals and metals	136	162	338	202	221	20	9.7
Machinery	751	1,447	1,791	992	1,116	124	12.5
Transportation equipment	1,223	2,031	2,932	1,210	1,248	39	3.2
Electronic products	574	706	735	468	584	116	24.8
Miscellaneous manufactures	74	141	190	71	75	4	5.6
Special provisions	15	51	28	16	29	13	81.4
Total	4,215	6,681	8,936	5,160	5,654	497	9.6
U.S. imports of merchandise for consumption:							
Agricultural products	507	585	456	466	437	-29	-6.1
Forest products	177	165	142	83	113	31	36.1
Chemicals and related products	1,254	1,360	2,686	928	1,826	898	96.8
Energy-related products	10,195	11,234	17,313	12,768	18,248	5,481	42.9
Textiles and apparel	59	12	9	5	5	(a)	0.0
Footwear	3	2	1	1	1	(a)	0.0
Minerals and metals	6,915	5,207	5,344	2,581	3,903	1,321	51.2
Machinery	28	43	43	42	63	21	50.0
Transportation equipment	140	161	123	146	189	44	29.5
Electronic products	64	67	85	58	73	15	25.9
Miscellaneous manufactures	122	201	367	264	303	39	14.7
Special provisions	179	107	152	79	37	-42	-53.2
Total	19,642	19,143	26,721	17,420	25,199	7,777	44.7
U.S. merchandise trade balance:							
Agricultural products	376	782	1,409	989	753	-236	-23.8
Forest products	-147	-115	-66	-48	-61	-12	-22.4
Chemicals and related products	-845	-783	-1,925	-402	-987	-585	-145.5
Energy-related products	-10,147	-11,150	-17,197	-12,664	-18,061	-5,397	-42.6
Textiles and apparel	10	50	92	77	106	29	32.7
Footwear	(a)	3	1	(a)	(a)	(a)	96.4
Minerals and metals	-6,779	-5,045	-5,007	-2,380	-3,681	-1,302	-54.7
Machinery	723	1,404	1,748	950	1,054	103	10.8
Transportation equipment	1,084	1,870	2,810	1,064	1,059	-5	-0.5
Electronic products	510	639	650	410	511	101	24.6
Miscellaneous manufactures	-47	-59	-176	-193	-227	-35	-18.0
Special provisions	-164	-57	-124	-64	-8	55	87.3
Total	-15,429	-12,462	-17,785	-12,261	-19,544	-7,282	-59.4

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Products in each sector are listed according to the level of processing used to produce them, with the least processed products listed first.

[a]Less than $500,000.

TABLE RU.2 Russia: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Miscellaneous inorganic chemicals (CH007)	33	56	98	58	67	9	15.5
Decreases:							
Poultry (AG005)	462	766	823	763	316	–447	–58.6
All other	3,720	5,858	8,015	4,339	5,274	932	21.5
Total	4,215	6,681	8,936	5,160	5,657	494	9.6
U.S. IMPORTS:							
Increases:							
Energy-related products:							
Petroleum products (EP005)	7,392	8,238	12,838	9,176	12,189	3,014	32.8
Crude petroleum (EP004)	1,271	1,524	2,974	2,065	4,062	1,997	96.7
Minerals and metals:							
Certain base metals and chemical elements (MM041)	951	1,098	818	541	1,067	526	97.2
Ingots, blooms, billets, and slabs of carbon and alloy steels (MM025A)	833	352	510	197	500	303	153.9
All other	9,195	7,931	9,581	5,442	7,381	1,939	35.6
Total	19,642	19,143	26,721	17,420	25,199	7,779	44.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

given that U.S. demand from one of its largest customers—the U.S. construction sector—had declined. As a result, Russia was the third-largest PVC export market for the United States in 2010.[3] The United States had a competitive advantage in exporting PVC in 2010 because of its abundant supplies of natural gas, the principal input for PVC manufacturing, and export prices that fell below the price of PVC made in Asia and Europe.

U.S. Imports

The increase in U.S. imports from Russia primarily reflected an increase in the value of imports of energy-related products due to higher global petroleum prices; however, the U.S. recovery from the economic downturn of 2008–09 was also a factor. Of the $18.2 billion of energy-related products the United States imported from Russia in 2010, $12.2 billion were imports of petroleum products and $4 billion were imports of crude petroleum. The average price of petroleum products rose 43 percent in 2010 to $92.40 per barrel, while U.S. imports of petroleum products by quantity rose only 7.8 percent in 2010 to 130.9 million barrels. Almost 90 percent of these imports were specialty lubricants and greases used in drilling operations; U.S. drilling for crude petroleum and natural gas increased, in terms of rigs operating, by about 42 percent in 2010. Similarly, crude petroleum imports from the world by quantity increased 19 percent in 2010 to 5.6 billion barrels, but average crude petroleum prices increased 31 percent to $73.80 per barrel.[4]

The second-largest rise in terms of import value was in the minerals and metals sector. Imports from Russia totaled $3.9 billion in 2010, an increase of $1.3 billion (51 percent) from 2009. Increased imports of nickel ($391 million) and semifinished steel products ($303 million) accounted for most of the growth in this sector.[5] The primary factor contributing to the increase in nickel imports from Russia was a 49 percent rise in the price of nickel in 2010, to $21,789 per metric ton.[6] In addition, U.S. consumption of stainless and other types of alloy steels, for which nickel in an input, increased by 300,000 tons to 1.4 million tons in 2010.[7]

U.S. imports from Russia of semifinished steel products rose sharply, by 630,000 tons (150 percent) in 2010. At the same time, the average price per ton of semifinished steel products imports increased only slightly during this period. Semifinished steel products are inputs in steel production, and imports of semifinished steel products increased as U.S. steel production increased by 25 million tons (38 percent) in 2010.[8]

[3] Lerner, "US PVC Market is Given a Boost by Overseas Demand," September 27, 2010.
[4] Official statistics of the U.S. Department of Energy.
[5] Semifinished steel products are solid blocks of steel, such as ingots and slabs, which are rolled into finished steel products such as sheets, plates, beams, etc.
[6] American Metal Market, Pricing database.
[7] American Iron and Steel Institute, "Shipments of Steel Mill Products: Stainless," December 2010.
[8] American Iron and Steel Institute, "Pig Iron and Raw Steel Production," December 2010.

Bibliography: Russia

American Metal Market, Pricing database. http://www.amm.com/Pricing.html (accessed March 24, 2011).

American Iron and Steel Institute. "Shipments of Steel Mill Products: Stainless." AIS 10-S, December 2010.

———. "Pig Iron and Raw Steel Production." AIS 7, December 2010.

Bottemiller, Helena. "Russia Agrees to Lift Ban on U.S. Poultry Imports." *Food Safety News*, June 25, 2010.

Hass, Morgan, and Mikhail Maksimenko. *Russian Federation: Poultry and Products Semi-annual: Consumption Falls As Production Unlikely to Compensate for Reduced TRQ in 2011.* GAIN Report no. RS 1108. USDA, FAS, March 2, 2011.

Lerner, Ivan. "US PVC Market is Given a Boost by Overseas Demand." *AllBusiness,* September 27, 2010. http://www.allbusiness.com/chemicals/plastics-rubber-industry-plastics-markets/15187971-1.html.

U.S. Department of State (USDOS). Bureau of European and Eurasian Affairs (BEEA). *Background Note: Russia,* March 11, 2011. http://www.state.gov/r/pa/ei/bgn/3183.htm.

Agricultural Products

Marin Weaver
(202) 205-3461
marin.weaver@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $8.0 billion (51 percent) to $23.9 billion
U.S. exports: Increased by $18.3 billion (18 percent) to $121.5 billion
U.S. imports: Increased by $10.3 billion (12 percent) to $97.6 billion

The U.S. trade surplus in agricultural products rose by $8.0 billion (51 percent) to $23.9 billion in 2010 with an $18.3 billion increase in exports that more than offset a $10.3 billion increase in imports (table AG.1). Growth in the value of both U.S. exports and U.S. imports in this sector resulted from expanded trade volumes and higher commodity prices for many products, as the global economy began to recover in 2010 from the 2009 downturn.[1]

A large part (39 percent) of the $18.3 billion rise in U.S. agricultural exports came from increased exports of cereals, cotton, and oilseeds (table AG.2). Exports of each of these products rose by more than $2 billion. U.S. exports to China saw the largest increase ($4.5 billion) of those to any country, mainly because of a higher volume of soybean and cotton exports, which account for over 70 percent of total U.S. agricultural exports to China.[2]

Several commodity groups contributed to the $10.3 billion (12 percent) increase in U.S. agricultural imports in 2010, with no individual group accounting for more than 10 percent of the total shift in imports. Vegetables; coffee and tea; and cocoa, chocolate, and confectionery products had the largest absolute increases, each rising between $0.9 billion and $1.0 billion (table AG.2).[3] Together they accounted for 29 percent of the total increase in agricultural imports. U.S. imports from Mexico, the second-largest supplier to the United States behind Canada, had the largest increase of any country, rising $2.2 billion in 2010. Growth in imports from Mexico occurred in a number of products, the largest being a $361 million (32 percent) increase in tomato imports because poor weather reduced the U.S. supply. Tomatoes accounted for 16 percent of the total shift in imports from Mexico; all other U.S. agricultural imports from Mexico accounted for less than 10 percent.[4]

---

[1] NBER, "Business Cycle Dating Committee, National Bureau of Economic Research," September 20, 2010; IMF, "World Economic Outlook: Recovery, Risk, Rebalancing," October 2010. The shifts in trade resulting from the 2008-09 economic recession and subsequent recovery did not influence U.S. agricultural employment—employment levels declined less than 1 percent between 2008 and 2009 and less than 2 percent in 2010. See employment data based on NAISC codes CEU3231110001, CEU3231120001, CEU3231140001, and CEU3231150001, Bureau of Labor Statistics.

[2] Compiled from official statistics of the U.S. Department of Commerce.

[3] Vegetable imports grew mainly due to increased import quantities while rising prices drove the growth in imports of coffee and tea and cocoa, chocolate, and confectionary products.

[4] Compiled from official statistics of the U.S. Department of Commerce.

TABLE AG.1 Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	12,514	14,882	17,241	16,571	17,996	1,425	8.6
Mexico	11,066	12,876	16,112	12,911	14,594	1,683	13.0
China	7,264	8,981	12,811	13,762	18,232	4,470	32.5
Japan	10,342	11,750	14,715	12,249	12,934	685	5.6
Korea	3,279	3,904	5,859	4,199	5,626	1,426	34.0
Thailand	717	919	1,082	1,056	1,176	120	11.4
Indonesia	1,100	1,531	2,222	1,784	2,215	430	24.1
Italy	736	918	1,027	869	936	67	7.7
France	632	686	764	571	755	184	32.1
Netherlands	1,789	1,680	1,973	1,434	1,731	297	20.7
All other	27,485	37,916	47,269	37,777	45,279	7,503	19.9
Total	76,924	96,041	121,077	103,184	121,473	18,290	17.7
EU-27	8,704	10,210	11,527	8,582	10,371	1,789	20.8
OPEC	2,847	4,334	6,592	4,301	5,092	790	18.4
Latin America	17,502	21,446	28,188	22,009	25,002	2,993	13.6
Asia	29,015	35,321	46,987	43,002	52,249	9,246	21.5
Sub-Saharan Africa	1,349	1,967	2,655	1,956	2,304	348	17.8
U.S. imports for consumption:							
Canada	16,128	17,919	20,691	17,136	18,999	1,863	10.9
Mexico	10,498	11,360	12,059	12,460	14,690	2,231	17.9
China	4,303	4,945	5,588	4,850	5,653	804	16.6
Japan	573	601	685	687	716	29	4.2
Korea	343	363	391	393	450	57	14.5
Thailand	2,742	2,830	3,258	3,266	3,679	414	12.7
Indonesia	1,580	1,656	2,175	1,967	2,149	182	9.3
Italy	3,173	3,464	3,645	3,197	3,291	93	2.9
France	3,277	3,723	3,713	2,986	3,266	280	9.4
Netherlands	2,293	2,472	2,370	2,105	2,282	177	8.4
All other	36,546	38,803	41,662	38,256	42,398	4,142	10.8
Total	81,456	88,136	96,238	87,301	97,572	10,271	11.8
EU-27	16,220	17,558	17,569	15,534	16,702	1,168	7.5
OPEC	1,475	1,516	1,591	1,679	1,692	13	0.8
Latin America	26,589	28,109	29,943	28,912	32,571	3,659	12.7
Asia	14,418	15,931	19,115	16,926	19,893	2,967	17.5
Sub-Saharan Africa	1,285	1,157	1,375	1,459	1,846	387	26.5

See footnote(s) at end of table.

TABLE AG.1 Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10-*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-3,614	-3,037	-3,450	-565	-1,003	-438	-77.6
Mexico	568	1,516	4,053	452	-96	-548	[a]
China	2,961	4,036	7,223	8,913	12,579	3,666	41.1
Japan	9,769	11,149	14,030	11,562	12,218	656	5.7
Korea	2,936	3,541	5,468	3,806	5,175	1,369	36.0
Thailand	-2,025	-1,911	-2,176	-2,210	-2,503	-294	-13.3
Indonesia	-479	-125	47	-182	66	248	[a]
Italy	-2,437	-2,546	-2,617	-2,328	-2,355	-26	-1.1
France	-2,646	-3,037	-2,949	-2,414	-2,511	-97	-4.0
Netherlands	-504	-792	-397	-671	-551	120	17.8
All other	-9,061	-887	5,607	-479	2,882	3,361	[a]
Total	-4,532	7,906	24,839	15,883	23,901	8,018	50.5
EU-27	-7,516	-7,348	-6,042	-6,952	-6,331	620	8.9
OPEC	1,373	2,818	5,001	2,623	3,400	777	29.6
Latin America	-9,087	-6,663	-1,754	-6,904	-7,569	-666	-9.6
Asia	14,597	19,390	27,872	26,076	32,356	6,280	24.1
Sub-Saharan Africa	63	810	1,280	497	459	-38	-7.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

TABLE AG.2 Agricultural products: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Cereals (AG030)	13,341	20,860	28,625	17,240	19,930	2,690	15.6
Cotton, not carded or combed (AG049)	4,501	4,578	4,829	3,384	5,746	2,362	69.8
Oilseeds (AG032)	7,172	10,346	15,853	16,780	18,936	2,156	12.8
All other	51,911	60,258	71,770	65,780	76,862	11,082	16.8
Total	76,924	96,041	121,077	103,184	121,473	18,290	17.7
U.S. IMPORTS:							
Increases:							
Fresh, chilled, or frozen vegetables (AG018)	4,310	4,701	5,003	4,800	5,846	1,046	21.8
Coffee and tea (AG028)	3,694	4,173	4,855	4,509	5,469	960	21.3
Cocoa, chocolate, and confectionery (AG037)	3,846	3,882	4,534	4,659	5,599	940	20.2
All other	69,606	75,380	81,846	73,333	80,658	7,325	10.0
Total	81,456	88,136	96,238	87,301	97,572	10,271	11.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

U.S. Exports

U.S. cereal exports increased by $2.7 billion (16 percent) in 2010—the largest absolute export shift of any agricultural commodity group between 2009 and 2010. This increase was caused primarily by growth in the volume of wheat and corn exports, which rose by 5.7 million metric tons (mmt) and 3.1 mmt, respectively, in 2010.[5] Several factors led to the rise in U.S. cereal export volumes, including reduced supplies due to bad weather in other major cereal-exporting countries, such as Russia, and higher demand as the global economy recovered. Wheat and corn account for all the U.S. cereal exports to Egypt and almost all (96 percent) of the exports to Korea, the two countries with the largest U.S. export increases—$600 million and $413 million, respectively—in 2010.[6]

Cotton (not carded or combed) registered the second-largest absolute increase in U.S. exports, rising by $2.4 billion (70 percent) between 2009 and 2010. China, the largest export market for U.S. cotton, accounted for over one-half of this growth. U.S. cotton exports to China rose by $1.2 billion (150 percent) and 449,000 metric tons (mt) (74 percent) in 2010.[7] Cotton is heavily used in China's large textile and apparel industry, and China is the world's largest producer, consumer, and importer of cotton.[8] Chinese cotton imports decreased in 2009, when the global economic crisis caused a decline in orders for Chinese apparel products. However, in 2010, cotton imports rose as China's textile and apparel industry increased production. Prices also recovered in 2010 after falling in 2009 in response to the global economic recession.[9]

In 2010, the third-largest absolute shift in U.S. exports was the $2.2 billion (13 percent) increase in oilseed exports, of which 98 percent, by value, were soybeans.[10] Approximately three-quarters ($1.6 billion) of the oilseed export growth was due to increased soybean shipments to China. China received almost 60 percent (by both volume and value) of all U.S. soybean exports in 2010. In absolute terms, U.S. soybean exports to China rose by $1.6 billion (18 percent) and 1.5 mmt (7 percent). Most of China's soybean imports are processed into soybean meal for animal feed and cooking oil for human consumption. Large margins between the prices paid for imported soybeans and the prices received for processed meal and oil have made local processing highly profitable and have contributed to the recent growth of China's imports of soybeans.[11]

U.S. Imports

Imports of fresh, chilled, or frozen vegetables experienced the largest growth of any agricultural commodity group, increasing by $1.0 billion (22 percent) in 2010. Increased

[5] Compiled from official statistics of the U.S. Department of Commerce. Wheat and corn are the two largest U.S. cereal exports.

[6] Wheat accounts for 39 percent and corn for 61 percent of U.S. cereal exports to Egypt. Wheat accounts for 19 percent and corn for 77 percent of U.S. cereal exports to Korea.

[7] GTIS, Global Trade Atlas database (accessed March 24, 2011).

[8] USDA, ERS, *Fiber Use for Textiles and China's Cotton Textile Exports,* March 2009; USDA, ERS, *Cotton and Wool Situation and Outlook Yearbook*, November 2008, iv.

[9] USDA, ERS, *Cotton and Wool Situation and Outlook Yearbook*, June 11, 2010, 6.

[10] GTIS, Global Trade Atlas database (accessed March 14, 2011).

[11] USDA, FAS, "Strong Processing Margins Support China's Expanding Soybean Import Market Demand," January 2010, 1.

imports of tomatoes, fresh peppers,[12] and asparagus[13] accounted for about two-thirds of this shift.[14]

Imports of tomatoes and fresh peppers rose primarily because of increased import volumes rather than higher prices. In 2010, tomato imports rose 343,000 mt (39 percent) but weighted-average unit values declined by 1 percent.[15] Fresh pepper imports rose by 26 percent (92,000 mt), while weighted-average unit values rose by 3 percent. The majority of tomatoes (82 percent) and fresh peppers (57 percent) were imported from Mexico. Imports of tomatoes and fresh peppers rose because adverse weather reduced domestic output in certain key growing areas, such as the early-2010 freeze which destroyed crops in Florida.[16] Tomato imports also rose because of low prices for Mexican products starting in the middle of the year. Higher imports of fresh peppers resulted from the availability of large supplies from Mexico at competitive prices in 2010.[17]

Asparagus imports increased by $120 million (42 percent) and by 25,000 mt (18 percent). The vast majority (98 percent by value) of U.S. asparagus was imported from Peru. In 2010, the volume of asparagus imports rose because U.S. production fell by 18 percent, resulting in the smallest asparagus harvest on record.[18] Low U.S. asparagus production reflected low yields and less planted area, which has been a long-term industry trend.[19] According to industry officials, asparagus prices had been depressed due to oversupply in previous years, but in 2010 they rose because of lower production.[20]

Coffee and tea products had the second-largest absolute import shift, rising $960 million (21 percent) in 2010. Over two-thirds of this shift was due to the increased value of imports of unroasted, not decaffeinated coffee beans, which experienced an 18 percent price increase to $3.12 per kilogram in 2010.[21] Rising global coffee bean prices in 2010 were driven by a number of factors, including (1) reduced global supply caused by poor harvests in Vietnam and Central America; (2) low stocks in the United States and Europe;

---

[12] All peppers other than chili peppers as classified under HTS 0709.6040. GTIS, Global Trade Atlas database (accessed March 15, 2011).

[13] Fresh or chilled asparagus as classified under HTS 0709.2090. GTIS, Global Trade Atlas database (accessed March 15, 2011).

[14] GTIS, Global Trade Atlas database (accessed March 25, 2011).

[15] The weighted average calculated at the 6-digit HTS level. Volume and value data for individual products are from GTIS, Global Trade Atlas database (accessed March 15, 2011).

[16] U.S. government official, telephone interview with USITC, March 22, 2010; USDA, ERS, *Vegetables and Melon Outlook*, February 25, 2010, 5; USDA, ERS, *Vegetables and Melon Outlook*, June 24, 2010, 1, 6–8; USDA, ERS, *Vegetables and Melon Outlook*, August 26, 2010, 9, 11; USDA, ERS, *Vegetables and Melon Outlook*, October 28, 2010, 4, 6, 10, 12.

[17] USDA, ERS, *Vegetables and Melon Outlook*, June 24, 2010, 1, 6-8; USDA, ERS, *Vegetables and Melon Outlook*, August 26, 2010, 9, 11; USDA, ERS, *Vegetables and Melon Outlook*, October 28, 2010, 4, 6, 10, 12; U.S. government official, telephone interview with USITC staff, March 22, 2010.

[18] USDA, ERS, *Vegetables and Melon Outlook*, October 28, 2010, 8.

[19] Asparagus is a perennial crop. Planted area has been falling in the United States over time due to rising competition from competitively priced imports of comparable quality, primarily from Peru. In recent years Peru has expanded its production, principally for export to the United States, and increased its U.S. marketing presence through the Peruvian Asparagus Importers Association. See, for example, freshlook.com, "Peruvian Asparagus Importers Association," April 15, 2009; freshlook.com, "PAIA Launches 2010 with Momentum," February 1, 2010; Lleras, "PAIA Develops Retailer Option Market Survey," December 21, 2010.

[20] Industry official, telephone interview with USITC staff, March 22, 2010.

[21] The largest supplier to the United States of unroasted, not decaffeinated coffee beans (HTS 0901.11.00) was Brazil, which provided 28 percent of imports, by value, in 2010. U.S. imports of Brazilian coffee rose $337 million (46 percent) in 2010. GTIS, Global Trade Atlas database (accessed March 21, 2011). The volume of unroasted coffee beans rose only 3 percent in 2010. GTIS, Global Trade Atlas database (accessed March 15, 2011).

(3) stronger global demand, including growing demand in a number of new markets, such as India and China; and (4) activity by investors and speculators in futures markets that increased prices.[22] On a country-specific basis, the largest increase in imports of unroasted coffee beans into the United States in 2010 was a $337 million rise in imports from Brazil.

Cocoa, chocolate, and confectionery products together had the third-largest absolute import shift in 2010, increasing $940 million dollars (20 percent). Overall, this shift was driven by higher unit values rather than greater import volumes (which rose by only 5 percent in 2010). Over one-quarter of the shift was due to a $249 million (113 percent) increase in the value of unsweetened cocoa powder.[23] The unit value for unsweetened cocoa powder rose by 85 percent to $3.90 per kg, and cocoa prices reached a 30-year high in 2010.[24]

Cocoa prices rose as the global supply fell because of several developments: an outbreak of swollen shoot viral disease that damaged crops in Côte d'Ivoire, the world's largest supplier of cocoa beans; falling global cocoa stocks and lower planting levels in some producing countries such as Indonesia, where farmers are switching to coffee production to avoid taxes; and political instability in Côte d'Ivoire.[25] Other factors also helped to push up prices including high demand—which exceeded supply for the fifth year in a row—and activity in the cocoa market by investors and speculators. Over half of the rise in value of U.S. imports of unsweetened cocoa powder was due to increased imports from the Netherlands and Germany, which together rose $127 million in 2010.[26]

[22] Herman, "Amid Rising Demand," November 25, 2010; Teather, "Coffee Prices Rise 20% in a Week," June 14, 2010; Ellis, "Coffee Prices on the Rise," September 10, 2010.

[23] HTS 1805.00.00 GTIS, Global Trade Atlas database (accessed March 22, 2011). The volume of unsweetened cocoa powder increased 15 percent in 2010.

[24] GTIS, Global Trade Atlas database (accessed March 22, 2011); Swissinfo.ch, "Cocoa Price Spike Hits Chocolate Industry," August 16, 2010. Whole coca beans rose 17 percent to $3.11 per kilogram in 2010.

[25] Mason, "Chocolate Lovers Hit by Rising Price of Cocoa," June 6, 2010; Stones, "Supply Worries Keep Cocoa Prices Rising," June 14, 2010; Boyle, "Rising Cocoa Prices Inspire Sourcing Innovation," October 22, 2010; Swissinfo.ch, "Cocoa Price Spike Hits Chocolate Industry," August 16, 2010.

[26] By volume, exports actually declined 2,885 mt from the Netherlands but rose 8,820 mt from Germany. GTIS, Global Trade Atlas database (accessed March 22, 2011).

Cereals[1]

Michael McConnell
(202) 205-3443
michael.mcconnell@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $2.9 billion (19 percent) to $18.3 billion
U.S. exports: Increased by $2.7 billion (16 percent) to $19.9 billion
U.S. imports: Decreased by $0.2 billion (11 percent) to $1.6 billion

The U.S. trade surplus in cereals increased by $2.9 billion (19 percent) to $18.3 billion in 2010 (table AG.3) due primarily to increased exports of wheat and corn, which accounted for 84 percent of cereal exports. Cereal exports increased in all three of the top U.S. export markets: Japan (1 percent), Mexico (8 percent), and Korea (29 percent). Significant increases were seen in exports to many countries, including Egypt, the Philippines, Venezuela, and China. U.S. cereal exports were bolstered by growing global demand for baked goods and animal feeds, as well as production shortfalls in major exporting countries due to poor weather.[2]

U.S. cereal imports—which are small relative to U.S. exports—declined by $199 million (11 percent) in 2010, the result of high domestic wheat inventories in the United States which reduced the need for imports, and also because of lower import prices and volumes. Declining wheat imports accounted for 65 percent of the total decrease.

U.S. Exports

The value of U.S. cereal exports increased $2.7 billion (16 percent) to $19.9 billion, primarily due to a 13 percent increase in export volume. By value, wheat and corn accounted for 90 percent of the increase in exports.[3] Severe drought in Russia, Ukraine, and Kazakhstan depressed production and exports of wheat from the Black Sea region.[4] This led to higher exports of U.S. wheat and corn to satisfy the unmet regional demand for grains for both human consumption and animal feed. U.S. exports of wheat and corn were also supported by growing global demand for baked goods, animal feed, and biofuels.

U.S. wheat exports rose $1.4 billion (25 percent) to $6.7 billion in 2010.[5] The volumes of exports increased by 6 mmt to 11.7 mmt, a 5 percent increase from 2009. Average prices did not change, remaining at $244 per metric ton. Nigeria (with imports of $800 million), Japan ($795 million), and Mexico ($569 million) remained the three most valuable destinations for U.S. wheat. Exports to Egypt and Iraq increased the most in absolute

[1] This commodity group includes wheat, rye, barley, oats, corn, rice, sorghum, and other cereals, but not seeds, milled grains, or final products (such as baked goods or pastas) made with cereals or milled products.
[2] USDA, ERS, *Wheat Outlook,* March 14, 2011.
[3] Compiled from official statistics of the U.S. Department of Commerce.
[4] USDA, FAS, *Russian Federation: Feed Sector Update*. December 16, 2010.
[5] Compiled from official statistics of the U.S. Department of Commerce.

TABLE AG.3 Cereals (AG030): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Japan	2,895	3,768	5,890	4,164	4,196	32	0.8
Mexico	2,038	2,711	4,078	2,661	2,883	222	8.3
Korea	943	1,202	2,765	1,430	1,843	413	28.9
Canada	355	576	753	569	490	-79	-13.9
Egypt	685	1,346	1,240	509	1,109	600	118.0
Taiwan	747	1,123	1,158	996	909	-87	-8.8
Nigeria	457	653	927	769	840	71	9.2
Thailand	83	111	168	157	125	-32	-20.4
Venezuela	177	321	881	397	491	95	23.7
Philippines	343	370	770	330	419	89	27.0
All other	4,615	8,678	9,994	5,257	6,625	1,368	26.0
Total	13,338	20,860	28,625	17,240	19,930	2,690	15.6
EU-27	257	1,083	927	252	451	199	79.0
OPEC	1,462	2,432	3,786	1,703	2,027	324	19.0
Latin America	4,335	6,261	9,396	5,771	6,146	375	6.5
Asia	5,322	7,174	11,471	7,565	8,164	599	7.9
Sub-Saharan Africa	776	1,167	1,550	1,180	1,351	171	14.5
U.S. imports for consumption:							
Japan	1	1	(a)	(a)	(a)	(a)	-12.4
Mexico	14	41	41	15	9	-6	-40.0
Korea	(a)	1	1	1	1	(a)	-1.9
Canada	622	996	1,872	1,144	953	-190	-16.6
Egypt	10	9	2	32	(a)	-31	-99.1
Taiwan	(a)	(a)	(a)	(a)	1	(a)	413.9
Nigeria	0	0	0	0	0	0	0.0
Thailand	184	218	335	365	398	33	9.1
Venezuela	(a)	0	0	0	0	0	0.0
Philippines	(a)	(a)	(a)	(a)	(a)	(a)	17.1
All other	133	160	245	252	247	-5	-1.9
Total	963	1,425	2,496	1,808	1,610	-199	-11.0
EU-27	14	14	51	56	39	-17	-30.4
OPEC	2	1	3	4	6	2	50.0
Latin America	23	47	49	43	61	19	41.9
Asia	291	356	518	527	547	20	3.7
Sub-Saharan Africa	(a)	(a)	(a)	(a)	(a)	(a)	-32.0

See footnote(s) at end of table.

TABLE AG.3 Cereals (AG030): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Japan	2,894	3,767	5,890	4,164	4,196	32	0.8
Mexico	2,025	2,670	4,037	2,647	2,874	227	8.6
Korea	943	1,201	2,764	1,430	1,843	413	28.9
Canada	-266	-419	-1,118	-575	-463	111	19.4
Egypt	675	1,338	1,238	477	1,108	631	132.4
Taiwan	747	1,123	1,157	996	908	-88	-8.8
Nigeria	457	653	927	769	840	71	9.2
Thailand	-101	-107	-167	-208	-273	-65	-31.3
Venezuela	177	321	881	397	491	95	23.7
Philippines	343	370	770	330	419	89	26.8
All other	4,483	8,518	9,749	5,005	6,378	1,373	27.4
Total	12,378	19,435	26,129	15,432	18,320	2,888	18.7
EU-27	243	1,069	876	196	411	216	110.3
OPEC	1,460	2,431	3,783	1,698	2,021	322	19.0
Latin America	4,312	6,213	9,347	5,728	6,085	357	6.2
Asia	5,031	6,818	10,953	7,038	7,617	579	8.2
Sub-Saharan Africa	776	1,167	1,550	1,180	1,351	171	14.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions.

[a]Less than $500,000.

terms—from $124 million to $433 million and from U.S wheat exports to $115 million, respectively. [6]

In 2010, U.S. corn exports increased by 12 percent in value to $9.9 billion, and by 7 percent in quantity to 50 mmt. Average prices increased 5 percent to $199 per metric ton. Corn exports accounted for 50 percent of total cereal export value. The largest U.S. export markets for corn remained Japan ($3 billion), Mexico ($1.6 billion), and Korea ($1.4 billion). Korea, Egypt, and China accounted for the largest export increases ($305 million, $290 million, and $235 million, respectively).

Drought caused lower wheat production in Russia, Ukraine, and Kazakhstan, a region that supplied more than one-quarter of the world's wheat exports from June 2009 to May 2010. Lower production resulted in lower exports from Russia, Ukraine, and Kazakhstan for the latter portion of the year. Also, the Russian government imposed an export ban on grains beginning in August to ensure domestic markets were satisfied. [7] The United States had relatively large supplies, due to large stocks carried over from the previous year. Countries that normally imported heavily from the drought-affected countries—particularly Egypt, Japan, and Korea—turned to U.S. wheat and corn to meet their needs for food and animal feed. The increase in wheat and corn exports to Egypt accounted for more than 22 percent of all cereal export gains.[8]

Increased demand for convenience-oriented grain goods and animal products also contributed to higher U.S. cereal exports, particularly in emerging markets. For example, Nigeria overtook Japan to become the top destination for U.S. wheat in 2010, increasing 8 percent to $800 million. A growing middle class in the Nigerian economy has changed food consumption patterns, increasing demand for flour for grain-based bread and convenience foods (e.g., pastries and noodles) for a growing fast-food restaurant industry.[9]

In 2010, demand for livestock feed increased as global consumption of meat, poultry, and dairy products rose. [10] In several countries, most notably Russia and China, government initiatives for self-sufficiency in domestic meat and dairy production in several countries have further increased the demand for imported feed grains in 2010. [11] The Chinese livestock sector has grown with the help of government assistance and planning. The result has been consolidation in the livestock sector, with larger industrial operations, and increased use of corn in feed rations.[12] U.S. corn exports to China increased from $52

[6] Wheat imports in Iraq are managed by the Public Distribution System (PDS) in Iraq. Seasonal bans on imported wheat are in place as a support for Iraqi farmers. U.S. wheat exports took place late in the 2009/10 marketing year (January to March) due to weather-related production shortfalls and later in the 2010/11 marketing year (particularly December) due to lower exports from the Black Sea region. The dramatic increase in one calendar year was due to imports over the course of two marketing years.

[7] USDA, FAS, *Russian Federation: Feed Sector Update*, December 16, 2010; USDA, WAOB, *WASDE*, April 8, 2011. The wheat marketing year is June to May.

[8] USDA, FAS, *Egypt: Impact of Russian Wheat Export Ban*, August 9, 2010; USDA, FAS, *Japan: Grain and Feed Annual*, March 11, 2010; USDA, FAS, *Republic of Korea: Grain and Feed Update*, November 1, 2010.

[9] USDA, FAS, *Nigeria: Grain and Feed Annual*, April 15, 2010.

[10] USDA, FAS, *Livestock and Poultry: World Markets and Trade*, October 2010; USDA, FAS, *Dairy: World Markets and Trade,* December 2010.

[11] Maintaining a sufficient supply of feed wheat was one of the reasons the Russian government to imposed its export ban on grain.

[12] USDA, FAS, *Peoples Republic of China: Livestock and Products Annual Report,* September 24, 2010; USITC, *China's Agricultural Trade: Competitive Conditions and Effects on U.S. exports,* March 2010.

million[13] to $288 million in 2010 as feed demand increased and poor growing conditions in major producing areas limited domestic supplies.[14]

Along with increasing international demand for biofuels derived from corn and wheat, demand from ethanol production has helped to raise prices for U.S. corn exports.[15] In the United States, corn use for fuel alcohol increased about 23 percent in 2010. According to USDA forecasts, this use is expected to account for 40 percent of corn production in the United States in the 2010/11 marketing year, compared with 35 percent the previous year and 20 percent in 2006/07.[16]

U.S. Imports

Between 2009 and 2010, U.S. cereal imports fell by $199 million (11 percent) to $1.6 billion. Most of the decline was accounted for by wheat imports, which fell 19 percent from $690 million to $561 million. High wheat stocks in the 2009/10 marketing year[17] buoyed U.S. supplies, depressing demand for imported wheat. Rice imports fell by 3 percent to $574 million, while imports of feed grains[18] fell by 10 percent to $474 million.

Canada is the largest supplier of cereals to the United States, accounting for 59 percent of total value and 82 percent of total volume in 2010. U.S. imports of Canadian wheat fell 21 percent to $511 million, while U.S. imports of feed grains[19] declined 10 percent in 2010 to $440 million. This decline was the result of poor growing conditions for Canadian grain farmers, which decreased production and quality. In addition, an ample U.S. wheat supply reduced the need to import, and a strong Canadian dollar made Canadian products relatively more expensive in the United States.[20]

Thailand is the United States' second-largest foreign supplier of cereals, predominantly, rice. The United States imported 72 percent of its total volume of rice from Thailand. By volume, cereal imports from Thailand fell 10 percent to 391,000 metric tons in 2010, but their value increased 9 percent to $398 million. Weather-related declines in rice production and subsequent export bans in India tightened global supplies, which pushed up prices for imported rice by 20 percent in the United States.[21]

[13] Because of rounding, numbers may not total precisely to data presented earlier.

[14] USDA, FAS, *Peoples Republic of China: Livestock and Products Annual Report,* September 24, 2010.

[15] USDA, WAOB, *WASDE*, April 8, 2011.

[16] USDA, ERS. Feed Grains Database. The corn marketing year runs from September to August.

[17] Marketing year as defined by the USDA in the *World Agricultural Supply and Demand Estimates*.

[18] Including oats, corn, barley, rye, sorghum, and buckwheat. Combined, these grains account for 30 percent of cereal imports in 2010.

[19] Feed grains from Canada constitute oats, corn, barley, sorghum, and buckwheat. Canada is the major supplier of these grains for the United States.

[20] USDA, FAS, *Canada Grain and Feed Update – November Quarterly*. November 1, 2010.

[21] USDA, ERS, *2009/10 Rice Yearbook*, January 2011.

Bibliography: Agricultural Products

Boyle, Louisa. "Rising Cocoa Prices Inspire Sourcing Innovation." Procurement Blog, October 22, 2010. http://blog.procurementleaders.com/procurement-blog/2010/10/22/rising-cocoa-prices-inspire-sourcing-innovation.html.

Ellis, Blake. "Coffee Prices on the Rise." CNNMoney.com, September 10, 2010. http://money.cnn.com/2010/09/10/markets/coffee_prices/index.htm.

Freshlook.com. "Peruvian Asparagus Importers Association," April 15, 2009.

———. "PAIA Launches 2010 with Momentum," February 1, 2010.

Global Trade Information Services, Inc. (GTI). Global Trade Atlas database (accessed various dates).

Herman, Charlie. "Amid Rising Demand." NPR.org, November 25, 2010. http://www.npr.org/2010/11/25/131594733/price-of-coffee-beans-on-the-rise.

International Monetary Fund (IMF). "World Economic Outlook: Recovery, Risk, and Rebalancing." World Economic Outlook Update, October 2010. http://www.imf.org/external/pubs/ft/weo/2010/update/02/index.htm.

Lleras, Priscilla. "PAIA Develops Retailer Option Market Survey." Perishable News.com, December 21, 2010.

Mason, Rowena. "Chocolate Lovers Hit by Rising Price of Cocoa as Disease Blights Crops." *Telegraph*, June 6, 2010. http://www.telegraph.co.uk/finance/markets/7806898/Chocolate-lovers-hit-by-rising-price-of-cocoa-as-disease-blights-crops.html.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Stones, Mike. "Supply Worries Keep Cocoa Prices Rising." *Confectionery News*. June 14, 2010. http://www.confectionerynews.com/Markets/Supply-worries-keep-cocoa-prices-rising.

Swissinfo. "Cocoa Price Spike Hits Chocolate Industry," August 16, 2010. http://www.swissinfo.ch/eng/business/Cocoa_price_spike_hits_chocolate_industry.html?cid=23333180.

Teather, David. "Coffee Prices Rise 20% in a Week." Guardian, June 14, 2010. http://www.guardian.co.uk/business/2010/jun/14/commoditries-coffee-prices-rising-sharply.

U.S. Department of Agriculture (USDA). Economic Research Service (ERS). *Cotton and Wool Situation and Outlook Yearbook*, November 2008. http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1281.

———. *Cotton and Wool Situation and Outlook Yearbook*, June 11, 2010. http://usda.mannlib.cornell.edu/usda/ers/CWS//2010s/2010/CWS-06-11-2010.pdf.

———. *Fiber Use for Textiles and China's Cotton Textile Exports,* March 2009. http://www.ers.usda.gov/Publications/CWS/2009/03Mar/CWS08i01/.

———. *Vegetables and Melon Outlook*, June 24, 2010. http://www.ers.usda.gov/publications/vgs/.

———. *Vegetables and Melon Outlook*, August 26, 2010.

———. *Vegetables and Melon Outlook*, October 28, 2010.

———. *Vegetables and Melon Outlook*, February 25, 2010.

———. Feed Grains Database. http://www.ers.usda.gov/data/feedgrains/CustomQuery/ (accessed March 14, 2011).

———. *2009/10 Rice Yearbook*. Washington, DC: USDA, January 2011. http://usda.mannlib.cornell.edu/usda/current/RCS-yearbook/RCS-yearbook-01-05-2011.pdf.

———. *Wheat Outlook.* Washington, DC: USDA, March 2011. http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1293.

USDA. Foreign Agricultural Service (FAS). "Strong Processing Margins Support China's Expanding Soybean Import Market Demand," January 2010.

———. *Canada: Grain and Feed Update; November Quarterly,* by Darlene Dessureault and Bradford Barrett. GAIN Report CA 0043, November 1, 2010. http://gain.fas.usda.gov/Lists/Advanced%20Search/AllItems.aspx.

———. *Dairy: World Markets and Trade.* Washington, DC: USDA, December 2010. http://www.fas.usda.gov/psdonline/circulars/dairy.pdf.

———. *Egypt: Impact of Russian Wheat Export Ban*, by Salah Mansour. GAIN Report, August 9, 2010.

———. *Iraq: Grain and Feed Annual*, by John Schnittker and Paul Spencer. GAIN Report, March 12, 2010.

———. *Japan: Grain and Feed Annual*, by Hisao Fukuda GAIN Report, JA 0009. March 11, 2010.

———. *Livestock and Poultry: World Markets and Trade*. Washington, DC: USDA, October 2010. http://www.fas.usda.gov/dlp/circular/2010/livestock_poultryfull101510.pdf.

———. *Nigeria: Grain and Feed Annual*, by Levin Flake and Michael David. GAIN Report NI10007. April 15, 2010.

———. *Peoples Republic of China: Livestock and Products Annual Report*, by Michael Woolsey, Jianping Zhang, and Kirsten Rasmussen. GAIN Report CH10055. September 24, 2010.

———. *Peru: Annual Asparagus Report,* by Gaspar E. Nolte. GAIN Report, September 13, 2010.

———. *Republic of Korea: Grain and Feed Update*, by Sunchul Choi and Gerald Smith. GAIN Report KS1030. November 1, 2010.

———. *Russian Federation: Feed Sector Update*, by Yelena Vassilieva and Marina Muran. GAIN Report RS1070. December 16, 2010.

USDA. World Agricultural Outlook Board (WAOB). *World Agricultural Supply and Demand Estimates*. Washington, DC: USDA, April 2011. http://www.usda.gov/oce/commodity/wasde/index.htm.

U.S. International Trade Commission (USITC). *China's Agricultural Trade: Competitive Conditions and Effects on U.S. Exports*. USITC Publication 4219. Washington, DC: USTIC 2010. http://www.usitc.gov/publications/332/pub4219.pdf.

Chemicals and Related Products

Brian Allen
(202) 205-3034
brian.allen@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $4.4 billion (27 percent) to $21.0 billion
U.S. exports: Increased by $31.1 billion (19 percent) to $197.0 billion
U.S. imports: Increased by $35.5 billion (20 percent) to $218.0 billion

In 2010, the value of the U.S. trade deficit in chemicals and related products increased by $4.4 billion in contrast to a decrease in the deficit of $17.1 billion in 2009 (table CH.1). The growth in U.S. imports in 2010 exceeded the rise in U.S. exports. The increase in the values of both U.S. imports and exports reflected expanding demand in all markets for consumer products made from chemicals and related products as the global economy recovered from the downturn in 2008–09.[1] Several of the specific economic factors contributing to the increase in overall trade levels include rising prices for inputs, including petroleum, natural gas, and primary petrochemicals;[2] increased overseas demand for U.S. precursor inputs, such as ethylene;[3] and increased U.S. agricultural demand for fertilizers.[4]

U.S. Exports

U.S. exports of chemicals and related products increased by $31.1 billion (19 percent) to $197.0 billion in 2010. Certain organic chemicals and other plastics in primary forms accounted for 27 percent of the total increase in U.S. exports (table CH.2). Products in each of these groups are used as inputs in the production of other goods, such as gasoline[5] or finished plastic products. Exporters benefited from greater overseas demand for these inputs. Canada and Mexico continued to be the most important markets for U.S. exports, accounting for almost 28 percent of all U.S. chemical product exports. However, the fastest U.S. export growth rates occurred with respect to Japan (35 percent) and China (25 percent).

U.S. Imports

In 2010, U.S. imports of chemicals and related products increased by $35.5 billion (20 percent) to $218.0 billion. The largest sources of such imports were Canada and Ireland, which accounted for 14 percent and 12 percent of total U.S. imports of these products, respectively. U.S. imports from Ireland saw the most significant growth (27 percent), a large portion of which is medicinal chemicals. U.S. imports of primary petrochemicals

[1] NBER, "Business Cycle Dating Committee, National Bureau of Economic Research," September 20, 2010; IMF, "World Economic Outlook: Recovery, Risk, Rebalancing," October 2010.
[2] For more information, see "Energy-Related Products."
[3] *PR Newswire*, "Global Demand for Plastics Rises," March 1, 2011, retrieved on March 23, 2011, and *ICIS Chemical Business*, "Supply/Demand behind Olefins Rise," February 14-20, 2011. 16.
[4] CF Industries, "Very Strong Agriculture Fundamentals Provide Momentum Entering 2011," February 17, 2011; PotashCorp, "Q4 & Year End," January 27, 2011.
[5] Tsukimori, "Japan's Cosmo Oil to Start ETBE Output from 2011," January 9, 2009.

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, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	28,475	29,033	30,657	26,743	31,281	4,538	17.0
China	6,863	8,975	9,885	10,643	13,344	2,701	25.4
Mexico	20,573	21,385	22,882	20,313	23,869	3,556	17.5
Ireland	1,475	1,721	1,788	1,732	2,147	415	24.0
Germany	6,601	8,941	10,658	10,580	10,830	249	2.4
Japan	8,383	8,847	9,911	7,958	10,741	2,783	35.0
United Kingdom	7,492	7,746	7,844	7,488	8,116	629	8.4
Belgium	8,793	10,061	10,581	8,568	10,431	1,863	21.7
France	4,418	5,107	5,186	4,973	5,428	455	9.2
Netherlands	8,956	9,345	11,201	9,137	8,864	-274	-3.0
All other	47,819	58,248	69,192	57,812	71,975	14,163	24.5
Total	149,848	169,409	189,784	165,948	197,026	31,078	18.7
EU-27	43,015	49,656	55,958	51,116	55,292	4,176	8.2
OPEC	3,320	4,141	5,236	4,130	5,175	1,046	25.3
Latin America	35,134	39,506	44,974	37,042	45,653	8,612	23.2
Asia	32,443	37,591	43,047	37,564	49,179	11,615	30.9
Sub-Saharan Africa	1,235	1,387	1,533	1,459	1,596	137	9.4
U.S. imports for consumption:							
Canada	28,036	29,939	33,124	25,021	30,037	5,016	20.0
China	14,389	16,889	20,918	17,510	21,319	3,809	21.8
Mexico	6,347	6,360	6,820	5,767	7,059	1,292	22.4
Ireland	20,884	22,082	21,839	19,953	25,260	5,308	26.6
Germany	13,370	15,251	17,067	14,922	15,368	446	3.0
Japan	10,739	11,065	11,315	9,985	12,013	2,028	20.3
United Kingdom	12,207	13,523	14,904	15,004	12,655	-2,349	-15.7
Belgium	3,444	3,407	4,614	5,209	5,160	-50	-1.0
France	8,262	8,527	9,755	8,005	8,951	946	11.8
Netherlands	2,280	2,305	2,262	1,973	2,393	420	21.3
All other	59,452	64,984	80,872	59,166	77,804	18,639	31.5
Total	179,410	194,331	223,492	182,515	218,020	35,505	19.5
EU-27	74,042	78,521	84,791	77,571	83,661	6,090	7.9
OPEC	10,667	12,851	18,403	8,071	12,136	4,065	50.4
Latin America	14,453	15,668	19,472	12,927	16,974	4,047	31.3
Asia	41,739	46,520	53,187	45,795	56,492	10,697	23.4
Sub-Saharan Africa	778	992	1,415	988	2,081	1,093	110.7

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, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	439	-906	-2,467	1,722	1,244	-478	-27.8
China	-7,526	-7,914	-11,033	-6,867	-7,975	-1,108	-16.1
Mexico	14,226	15,025	16,062	14,546	16,810	2,264	15.6
Ireland	-19,409	-20,360	-20,051	-18,221	-23,114	-4,893	-26.9
Germany	-6,769	-6,310	-6,409	-4,342	-4,538	-197	-4.5
Japan	-2,356	-2,218	-1,404	-2,028	-1,272	756	37.3
United Kingdom	-4,714	-5,777	-7,060	-7,516	-4,539	2,978	39.6
Belgium	5,349	6,654	5,966	3,359	5,272	1,913	56.9
France	-3,844	-3,421	-4,570	-3,032	-3,523	-491	-16.2
Netherlands	6,676	7,040	8,938	7,165	6,470	-694	-9.7
All other	-11,633	-6,736	-11,680	-1,353	-5,829	-4,476	-330.7
Total	-29,562	-24,923	-33,708	-16,567	-20,994	-4,427	-26.7
EU-27	-31,027	-28,865	-28,833	-26,455	-28,369	-1,914	-7.2
OPEC	-7,347	-8,710	-13,168	-3,941	-6,960	-3,019	-76.6
Latin America	20,681	23,838	25,502	24,115	28,679	4,565	18.9
Asia	-9,295	-8,929	-10,140	-8,232	-7,313	919	11.2
Sub-Saharan Africa	457	396	118	472	-485	-957	([a])

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

TABLE CH.2 Chemicals and related products: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	*Percent*
	Million dollars						
U.S. EXPORTS:							
Increases:							
Certain organic chemicals (CH006)	14,263	15,796	16,360	13,339	17,679	4,341	32.5
Other plastics in primary forms (CH030)	11,746	12,860	13,430	10,412	14,512	4,100	39.4
Miscellaneous plastic products (CH033)	17,570	19,218	20,189	17,719	21,235	3,516	19.8
All other	106,269	121,535	139,806	124,478	143,600	19,122	15.4
Total	149,848	169,409	189,784	165,948	197,026	31,078	18.7
U.S. IMPORTS:							
Increases:							
Major primary olefins (CH001)	8,062	9,472	12,812	5,931	10,496	4,565	77.0
Fertilizers (CH010)	7,525	9,507	16,485	7,373	11,801	4,428	60.1
Medicinal chemicals (CH019)	65,218	71,777	79,943	82,417	86,603	4,187	5.1
All other	98,604	103,576	114,251	86,794	109,119	22,325	25.7
Total	179,410	194,331	223,492	182,515	218,020	35,505	19.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

and fertilizers grew most rapidly among chemicals and related products, accounting for 25 percent of the increase in U.S. imports. Imports of primary petrochemicals and fertilizers increased in part because of increased domestic demand for consumer and industrial products that require primary petrochemicals as an input and because of the improved outlook for domestic crop production requiring additional fertilizer supply.

Primary Petrochemicals[1]

Eric Land
(202) 205-3349
eric.land@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $5.0 billion (72 percent) to $11.9 billion
U.S. exports: Increased by $0.6 billion (45 percent) to $2.0 billion
U.S. imports: Increased by $5.6 billion (67 percent) to $14.0 billion

Total U.S. trade in primary petrochemicals increased by $6.2 billion (64 percent) in 2010, reflecting significant increases in both domestic and global demand for these products.[2] The increase in global manufacturing activity as the economic recovery progressed boosted demand for primary petrochemicals.[3]

U.S. Exports

The global economic recovery and the subsequent rise in foreign demand for petrochemical-based products, such as paints and plastics resins, helped to generate a 45 percent increase in U.S. exports of primary petrochemicals, the value of which rose to $2.0 billion in 2010 (table CH.3). Demand for these products has risen worldwide as a result of increased downstream demand in the mining, automotive, agricultural, and construction industries.[4] Additionally, demand for U.S.-produced ethylene rose faster than demand for overseas production, owing to competitive cost advantages in domestic versus foreign ethylene production. In 2010, production input costs for ethylene and propylene fell as the feedstock ethane became increasingly available at a significantly lower cost. This drop in cost stemmed from increased natural gas production from "unconventional" sources and more efficient processing within natural gas fractionation plants. These factors resulted in a 20 percent increase in the overall supply of natural gas liquids, as well as a decline in the price by 20 percent or more.[5] These changes in cost led to an estimated 25 percent increase in the available supply of ethane and have enabled petrochemical domestic producers using ethane as a feedstock to run their facilities at optimum efficiencies.[6]

U.S. exports of both olefins and aromatics therefore rose in 2010. U.S. exports of primary olefins—the feedstock for major polymers, including polyethylene, polypropylene, and polyvinyl chloride—increased by 34 percent to $587 million in 2010. Exports of primary

[1] This industry/commodity group includes major primary olefins, other olefins, and primary aromatics.
[2] *Platts Horizon*, "Highlight: Platts Global Petrochemical Index," Winter 2010/11. 35.
[3] *Chemical Week,* "GPCA 2010: Demand Rebounds but Supply Additions Loom," December 7, 2010,. Demand for chemicals rose by approximately 5 percent in the domestic market and by 10 percent in Europe. *Chemical & Engineering News*, "World Chemical Outlook," January 1, 2011, 9.
[4] "Global Demand for Plastics Rises," *PR Newswire*, March 1, 2011, accessed March 23, 2011 from http://www.prnewswire.com/news-releases/global-demand-for-plastics-rises-117130623.html, and *ICIS Chemical Business*, "Supply/Demand behind Olefins Rise," February 14-20, 2011. 16.
[5] *Chemical Week,* "Petrochemicals," March 18, 2011; Holland, "US NGL Prices Dropping 20% on Ethane Overproduction," October 25, 2010. The cost for domestically produced ethane, approximately $4–5 per million Btu, remains higher than ethane produced in the Middle East, which remains at about $1–2 per million Btu.
[6] *Chemical Week,* "Petrochemicals," March 18, 2011.

TABLE CH.3 Primary petrochemicals (CH001, CH002, CH003): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
1U.S. exports of domestic merchandise:							
Saudi Arabia	7	(a)	1	(a)	13	12	13,970.4
Canada	375	337	469	301	380	79	26.3
Iraq	0	0	0	0	0	0	0.0
Algeria	0	0	(a)	0	0	0	0.0
Venezuela	38	40	33	33	42	9	26.6
Korea	144	159	125	141	228	86	61.1
Brazil	4	4	18	6	18	12	190.0
Russia	(a)	(a)	(a)	(a)	1	1	457.6
Nigeria	(a)	(a)	0	(a)	(a)	(a)	-95.0
Kuwait	(a)	(a)	(a)	(a)	(a)	(a)	388.4
All other	973	1,114	1,131	918	1,344	426	46.4
Total	1,541	1,656	1,778	1,400	2,025	625	44.6
EU-27	423	466	327	325	474	148	45.6
OPEC	56	49	35	43	67	23	54.0
Latin America	358	512	643	355	427	72	20.4
Asia-Saharan Africa	9	5	6	13	8	-5	-38.4
U.S. imports for consumption:							
Saudi Arabia	1,528	2,218	3,261	1,314	2,662	1,348	102.7
Canada	1,387	1,503	1,832	853	1,757	904	105.9
Iraq	1,199	1,281	2,309	1,020	1,510	490	48.1
Algeria	2,518	2,871	3,013	982	1,137	155	15.8
Venezuela	911	1,156	1,916	934	1,031	97	10.4
Korea	493	556	748	335	658	323	96.3
Brazil	279	421	416	353	691	338	95.7
Russia	447	360	458	300	676	376	125.3
Nigeria	9	40	72	187	611	424	226.8
Kuwait	260	377	515	313	575	262	83.7
All other	2,574	2,592	2,782	1,769	2,652	883	49.9
Total	11,605	13,374	17,322	8,360	13,961	5,601	67.0
EU-27	717	577	546	399	806	408	102.2
OPEC	6,857	8,582	12,051	5,282	8,052	2,770	52.4
Latin America	1,721	1,953	2,651	1,635	2,059	424	25.9
Asia	607	878	995	533	888	355	66.5
Sub-Saharan Africa	120	184	378	350	1,056	706	201.7

See footnote(s) at end of table.

TABLE CH.3 Primary petrochemicals (CH001, CH002, CH003): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Saudi Arabia	-1,521	-2,218	-3,260	-1,313	-2,649	-1,336	-101.7
Canada	-1,012	-1,166	-1,362	-552	-1,377	-825	-149.4
Iraq	-1,199	-1,281	-2,309	-1,020	-1,510	-490	-48.1
Algeria	-2,518	-2,871	-3,013	-982	-1,137	-155	-15.8
Venezuela	-872	-1,115	-1,883	-901	-989	-88	-9.8
Korea	-350	-396	-622	-194	-430	-236	-121.9
Brazil	-275	-417	-398	-347	-673	-326	-94.0
Russia	-447	-360	-458	-300	-675	-375	-125.1
Nigeria	-9	-40	-72	-187	-611	-424	-227.1
Kuwait	-260	-377	-515	-313	-575	-262	-83.7
All other	-1,601	-1,478	-1,651	-851	-1,308	-457	-53.8
Total	-10,064	-11,719	-15,544	-6,960	-11,935	-4,976	-71.5
EU-27	-294	-111	-219	-73	-332	-259	-352.8
OPEC	-6,801	-8,532	-12,016	-5,239	-7,985	-2,746	-52.4
Latin America	-1,363	-1,442	-2,009	-1,281	-1,632	-352	-27.5
Asia	-257	-568	-674	-155	-188	-33	-21.0
Sub-Saharan Africa	-112	-179	-371	-337	-1,048	-711	-210.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.

aromatic petrochemicals, such as benzene and toluene, which are used to produce such stable derivative products as polystyrene, polycarbonate, and nylon, increased by 130 percent to $938 million.[7]

The largest markets for U.S. exports of primary petrochemicals in 2010 were Canada and Korea, for which exports rose by 79 percent and 86 percent, respectively. These markets also recorded the largest increases in exports from the United States, despite having significant domestic petrochemical production facilities and growing capacity of their own.

U.S. Imports

U.S. imports of primary petrochemicals increased by 67 percent to $14.0 billion in 2010. Of particular significance, imports of primary olefins and aromatics increased by $4.6 billion and $938 million, respectively. The economic recovery played an important role in these gains, helping to drive up domestic demand for consumer and industrial products that require primary petrochemicals.[8] Imports increased from all leading suppliers, including the top four: Saudi Arabia, Canada, Iraq, and Algeria.[9]

[7] Among aromatic petrochemicals, the U.S. industry produces the greatest amount of benzene and is estimated to account for 20 percent of global production. *Chemical Week,* "Strong Outlook for Mideast Aromatics Producers," December 16, 2010.

[8] *ICIS Chemical Business*, "Supply/Demand behind Olefins Rise;" and *Chemical Week,* "Petrochemicals," March 18, 2011.

[9] Purified isoprene and mixed xylene isomers were the only products in this grouping for which imports fell in 2010.

Certain Organic Chemicals[1]

Philip Stone
(202) 205-3424
philip.stone@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $1.9 billion (29 percent) to $8.6 billion
U.S. exports: Increased by $4.3 billion (33 percent) to $17.7 billion
U.S. imports: Increased by $2.4 billion (36 percent) to $9.1 billion

The U.S. trade surplus for certain organic chemicals rose by $1.9 billion (29 percent) in 2010 as the value of U.S. exports increased more than that of U.S. imports, even though U.S. imports grew at a slightly faster rate (table CH.4). U.S. exports grew by $4.3 billion (33 percent), in part due to increased exports of the gasoline additive ethyl tertiary-butyl ether (ETBE) to the EU and Japan. U.S. imports rose by $2.4 billion (36 percent) as demand for methanol increased and the U.S. economy continued to recover from the economic downturn in 2009. For this product group, Canada, China, and Mexico remained the major trading partners for the United States.

U.S. Exports

Exports of ETBE, a gasoline additive made from ethanol, rose by $834 million (507 percent) and accounted for approximately 20 percent of the total increase in U.S. exports of certain organic chemicals in 2010. The largest markets for exports of ETBE were the EU and Japan, both of which have government policies promoting the use of renewable fuels.[2] Fuel blenders in Japan prefer to blend ETBE with gasoline rather than pure ethanol because ETBE is more compatible with the existing gasoline distribution network.[3] For most other certain organic chemicals, such as acrylonitrile,[4] the value of U.S. exports in 2010 rebounded to 2008 levels.

U.S. Imports

In 2010, methanol registered the largest increase in U.S. imports of certain organic chemicals and accounted for 20 percent of the growth in U.S. imports within this sector/ Demand for methanol, of which most imports come from Trinidad and Tobago, increased in early 2010 as harsh winter weather conditions boosted seasonal demand for antifreeze[5] and windshield washer fluid.[6] Higher demand for methanol was also attributed to a rise in the demand for fuel-related products that use methanol, such as dimethyl ether, methyl tertiary-butyl ether (MTBE), and biodiesel.[7] In 2010, demand for formaldehyde also

[1] This large product 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] USITC, *Industrial Biotechnology*, 2008, 4-10 and 4-11.

[3] Tsukimori, "Japan's Cosmo Oil to Start ETBE Output from 2011," January 9, 2009.

[4] Acrylonitrile is an input in the production of certain plastics, rubbers, and nylon fibers.

[5] Methanol is used as an antifreeze in pipelines and other applications. See English et al., "Methanol," 2005, 315.

[6] *ICIS Chemical Business,* "Methanol," March 29, 2010, 36.

[7] Burridge, "Methanol Prices Soar in Asia and US," November 8, 2010, 16.

TABLE CH.4 Certain organic chemicals (CH006): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	1,779	1,764	1,769	1,356	1,914	558	41.1
Mexico	2,378	2,756	3,078	2,577	2,807	229	8.9
China	716	1,012	996	1,269	1,592	323	25.4
Japan	717	705	648	514	1,237	724	140.9
Belgium	868	890	1,015	825	1,202	377	45.7
Brazil	542	742	824	662	1,001	339	51.3
Netherlands	1,145	1,035	909	691	899	208	30.2
Singapore	359	385	433	357	476	119	33.5
Germany	226	277	263	197	265	67	34.1
Korea	867	1,164	1,130	749	1,037	288	38.5
All other	4,665	5,067	5,295	4,142	5,249	1,108	26.7
Total	14,263	15,796	16,360	13,339	17,679	4,341	32.5
EU-27	3,239	3,281	2,963	2,440	3,337	896	36.7
OPEC	872	795	1,144	686	745	59	8.7
Latin America	4,714	5,253	6,100	4,737	5,609	871	18.4
Asia	3,761	4,545	4,519	3,960	5,842	1,882	47.5
Sub-Saharan Africa	120	118	125	100	114	14	14.4
U.S. imports for consumption:							
Canada	698	757	968	839	1,266	428	51.0
Mexico	274	221	255	225	251	26	11.4
China	596	726	1,103	721	1,198	478	66.3
Japan	533	519	548	483	602	119	24.7
Belgium	83	84	112	107	159	53	49.5
Brazil	76	73	112	129	165	36	27.7
Netherlands	216	248	269	244	260	16	6.4
Singapore	453	427	689	689	674	-16	-2.3
Germany	661	703	874	643	881	238	37.1
Korea	64	72	99	71	97	26	36.7
All other	3,448	3,611	4,153	2,512	3,518	1,005	40.0
Total	7,103	7,441	9,184	6,663	9,072	2,409	36.2
EU-27	1,971	2,118	2,401	1,851	2,292	441	23.8
OPEC	619	508	563	295	546	251	85.3
Latin America	1,806	1,823	2,041	1,115	1,611	496	44.5
Asia	1,890	1,995	2,857	2,304	3,036	732	31.8
Sub-Saharan Africa	153	294	292	133	232	99	74.0

See footnote(s) at end of table.

TABLE CH.4 Certain organic chemicals (CH006): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	1,081	1,007	800	518	648	130	25.1
Mexico	2,104	2,535	2,823	2,352	2,556	204	8.7
China	120	286	-107	549	394	-155	-28.3
Japan	184	186	100	31	635	604	1,975.3
Belgium	785	806	903	719	1,043	324	45.1
Brazil	466	669	711	533	837	304	57.0
Netherlands	930	787	639	446	639	193	43.2
Singapore	-94	-43	-256	-333	-198	135	40.6
Germany	-435	-426	-611	-445	-616	-171	-38.4
Korea	803	1,092	1,031	678	940	262	38.7
All other	1,216	1,456	1,142	1,629	1,732	102	6.3
Total	7,159	8,355	7,176	6,675	8,607	1,932	28.9
EU-27	1,268	1,163	562	589	1,044	455	77.3
OPEC	253	287	580	391	199	-192	-49.1
Latin America	2,907	3,431	4,060	3,622	3,998	376	10.4
Asia	1,871	2,549	1,662	1,655	2,805	1,150	69.5
Sub-Saharan Africa	-33	-176	-167	-33	-118	-84	-252.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

began recovering from a decline brought on by the economic downturn in 2009.[8] Formaldehyde production is the largest use for methanol in the United States, and its demand is tied to the demand for products used in housing and construction.[9] Increased imports of ethylene glycol accounted for slightly less than 20 percent of the increase in U.S. imports of certain organic chemicals. Ethylene glycol is an input in the production of polyethylene terephthalate (PET). Demand for PET, which is used to make drink bottles and polyester fibers, was strong globally in 2010.[10]

[8] *ICIS Chemical Business,* "Methanol," March 29, 2010, 36.

[9] Although new residential construction remained low in 2010, spending on home remodeling increased. USDOC, U.S. Census Bureau, *New Residential Construction,* table Q1; JCHS, *The State of the Nation's Housing 2010*, 2010, 9–10; Sullivan, "As Remodeling Rebounds, Some Caveats for the Homeowner," March 18, 2011.

[10] Lerner et al., "PET Demand Surges, but Overcapacity Looms," February 14, 2011, 32.

Fertilizers[1]

Raymond L. Cantrell
(202) 205-3362
raymond.cantrell@usitc.gov

Change from 2009 from 2010:

U.S. trade deficit: Increased by $4.2 billion (113 percent) to $7.9 billion
U.S. exports: Increased by $0.3 billion (7 percent) to $3.9 billion
U.S. imports: Increased by $4.4 billion (60 percent) to $11.8 billion

In 2010, the U.S. trade deficit in fertilizers rose sharply from the five-year low experienced in 2009 (table CH.5). The 113 percent increase was driven by rising U.S. demand for imports of fertilizers, owing to the improved outlook for domestic crop production[2] following the economic downturn in 2008–09.[3]

Several factors led to expanded domestic fertilizer production as well as the increase in the trade deficit in 2010. During 2008–09, farmers in the United States and abroad cut back on fertilizer applications as crop inventories increased. In the spring of 2010, U.S. farmers began to increase fertilizer application rates to replenish nutrients that had been depleted in 2009.[4] To prepare for the expected increase in domestic demand, U.S. fertilizer producers ramped up production, reduced exports of phosphate fertilizers, and boosted imports of the principal types of fertilizers as producer inventories declined.[5] In addition, prices of fertilizers increased, reflecting an anticipated growth in demand for fertilizers in the upcoming year.[6] After lower-than-expected crop yields in the United States and abroad in 2010,[7] planted acreage of the eight major U.S. crops was expected to rise by 10 million acres (4 percent) to 255 million acres during July 1, 2010–June 30, 2011.[8]

U.S. Exports

More than 90 percent of the total increase in the value of U.S. fertilizer exports in 2010 was accounted for by finished fertilizers, particularly ammonium phosphates. The U.S. phosphate fertilizer industry is a large net exporter and relies minimally on imports, while nitrogen and potassium (potash) fertilizers have historically experienced relatively large trade deficits. Diammonium phosphate (DAP) and monoammonium phosphate (MAP)

[1] This industry/commodity group includes finished nitrogen, phosphate, and potassium (potash) fertilizers, together with ammonia, which is both a nitrogen fertilizer itself and a feedstock for a large variety of other nitrogen fertilizers (urea, urea-ammonium nitrate solution, ammonium nitrate, etc.).

[2] See USDA, WAOB, *Agricultural Projections to 2020*, February 2011.

[3] Heffer and Prud'homme, *Short-Term Fertilizer Outlook 2010–2011*, December 2010.

[4] Heffer and Prud'homme, *Short-Term Fertilizer Outlook 2010–2011*, December 2010.

[5] CF Industries, "Very Strong Agriculture Fundamentals Provide Momentum Entering 2011," February 17, 2011; PotashCorp, "Q4 & Year End," January 27, 2011.

[6] USDA, NASS, *Agricultural Prices*, February 28, 2011; Green Markets, *Fertilizer Market Intelligence Weekly*, November 2010.

[7] During 2010, adverse weather across the midwestern U.S. Corn Belt, Canada, northwestern Europe, and Russia substantially reduced global corn and wheat production and inventories. These factors, combined with resurgent global economic growth and other food, feed, and fiber crop production shortfalls, led to a run-up in crop and fertilizer prices and the more intensive use of production inputs. USDA, WAOB, *Agricultural Projections to 2020*, February 2011.

[8] USDA, WAOB, *Agricultural Projections to 2020*, February 2011.

TABLE CH.5 Fertilizers (CH010): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	341	433	676	403	488	85	21.1
Trinidad & Tobago	(a)	1	2	3	1	-3	-80.8
India	587	778	2,791	1,077	1,085	7	0.7
Saudi Arabia	1	4	2	1	1	(a)	7.5
Russia	1	1	(a)	(a)	1	1	375.3
Brazil	256	414	692	458	559	102	22.3
Venezuela	24	22	20	12	48	36	291.4
Mexico	390	390	464	262	308	46	17.4
China	226	115	186	160	90	-70	-43.7
Kuwait	(a)	(a)	(a)	1	3	2	247.6
All other	1,188	1,311	2,337	1,306	1,357	51	3.9
Total	3,014	3,470	7,171	3,684	3,941	257	7.0
EU-27	33	37	61	83	75	-8	-9.8
OPEC	64	70	87	47	104	57	122.4
Latin America	1,210	1,549	2,216	1,272	1,569	298	23.4
Asia	1,181	1,152	3,583	1,526	1,454	-72	-4.7
Sub-Saharan Africa	71	29	74	166	37	-129	-77.7
U.S. imports for consumption:							
Canada	2,422	2,947	5,529	3,263	4,453	1,190	36.5
Trinidad & Tobago	1,253	1,419	2,221	938	1,798	860	91.6
India	1	1	27	2	1	-1	-58.5
Saudi Arabia	801	953	1,488	654	947	294	44.9
Russia	444	716	1,913	410	822	412	100.6
Brazil	29	32	74	45	102	57	124.9
Venezuela	489	587	874	447	565	118	26.5
Mexico	59	73	284	33	100	66	199.3
China	74	229	398	107	278	172	160.5
Kuwait	220	327	544	175	311	136	77.8
All other	1,731	2,223	3,133	1,300	2,425	1,125	86.5
Total	7,525	9,507	16,485	7,373	11,801	4,428	60.1
EU-27	327	518	626	213	404	191	90.0
OPEC	2,043	2,504	3,992	1,816	2,457	641	35.3
Latin America	1,922	2,182	3,587	1,591	2,683	1,092	68.6
Asia	131	300	487	140	339	199	141.8
Sub-Saharan Africa	4	9	30	44	100	57	129.9

See footnote(s) at end of table.

TABLE CH.5 Fertilizers (CH010): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-2,082	-2,514	-4,853	-2,860	-3,965	-1,105	-38.6
Trinidad & Tobago	-1,253	-1,418	-2,219	-935	-1,797	-862	-92.3
India	586	778	2,764	1,075	1,084	8	0.8
Saudi Arabia	-799	-949	-1,485	-653	-946	-294	-45.0
Russia	-443	-716	-1,913	-409	-821	-412	-100.5
Brazil	227	382	618	412	458	45	11.0
Venezuela	-465	-565	-854	-434	-517	-82	-18.9
Mexico	331	317	180	229	208	-21	-9.1
China	151	-114	-212	53	-188	-241	[b]
Kuwait	-220	-327	-544	-174	-308	-134	-77.0
All other	-543	-912	-796	6	-1,068	-1,074	[b]
Total	-4,512	-6,037	-9,314	-3,689	-7,860	-4,171	-113.1
EU-27	-294	-480	-565	-129	-329	-200	-154.5
OPEC	-1,980	-2,434	-3,905	-1,770	-2,354	-584	-33.0
Latin America	-712	-633	-1,371	-320	-1,113	-794	-248.4
Asia	1,050	852	3,096	1,386	1,115	-270	-19.5
Sub-Saharan Africa	67	19	44	123	-63	-186	[b]

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

accounted for about 70 percent of the total increase in U.S. exports. About 50 percent of the total volume of DAP/MAP produced in the United States is exported.[9]

In 2010, DAP accounted for about 65 percent of total DAP/MAP export trade in terms of both value and quantity, while the unit value price in dollars per metric ton rose by 27 percent. India, historically the largest market for exports of U.S. DAP, accounted for 65 percent of total U.S. exports of DAP by value in 2010 and 40 percent of all U.S. exports of ammonium phosphates.[10] U.S. exports of MAP rose 40 percent by value, 11 percent in volume, and 26 percent in price over the prior year. The leading markets for U.S. exports of MAP—Canada, Brazil, Australia, Argentina, and Colombia—accounted for most of the growth as their economies began to recover in 2010.[11]

U.S. Imports

U.S. imports of finished fertilizers rose 64 percent by value and 61 percent by volume in 2010.[12] This increase was driven by a rise in domestic fertilizer demand that exceeded U.S. production capacity, as the U.S. and foreign agriculture sectors continued to rebound from the economic downturn of 2008–09.[13] Potash, ammonia, and urea accounted for about 85 percent of the trade increase by quantity and value in 2010. Potash imports increased by 59 percent to $3.4 billion, ammonia imports rose by 76 percent to $2.5 billion, and urea imports increased by 54 percent to $2.1 billion.[14] Import prices for ammonia and urea rose, but potash prices declined by 29 percent as farmers continued to resist the elevated potash prices that prevailed during the fertilizer market downturn in 2009.[15]

In 2010, approximately 88 percent of imports of U.S. potash were sourced from Canada, which has vast reserves, logistical advantages, and beneficial corporate affiliations; Russia supplied another 11 percent. Trinidad and Tobago was the leading supplier of ammonia to the United States, accounting for 63 percent of U.S. imports by value. Several U.S. producers have plants or plant affiliates in Trinidad and Tobago, which is both a strategic location logistically and a cost-effective natural gas feedstock source ideal for providing ammonia to the United States. [16] Canada, Ukraine, and Russia provided about 30 percent of total U.S. imports. Canada, the largest U.S. supplier of urea, accounted for 27 percent of the total, followed by China at 12 percent. Canada benefits from corporate affiliations, while China has surplus availability, depending on government regulations. Other urea suppliers were Trinidad and Tobago and several export-oriented countries in the Mideast.

---

[9] In 2010, about 12 million metric tons of DAP/MAP were produced in the United States, an increase of 6 percent over the prior year. Out of this total, about 6.4 million tons (48 percent) were exported. USDOC, Census, *Fertilizers and Related Chemicals*, June 2010–March 2011; compiled from official statistics of the U.S. Department of Commerce.

[10] India imports only DAP from the United States. See also PotashCorp, "PhosChem Announces Six Million Tonne DAP Contract," March 22, 2010.

[11] Heffer and Prud'homme, *Short-Term Fertilizer Outlook 2010–2011*, December 2010.

[12] Compiled from official statistics of the U.S. Department of Commerce.

[13] Heffer and Prud'homme, *Short-Term Fertilizer Outlook 2010–2011*, December 2010; USDA, WAOB, *Agricultural Projections to 2020*, February 2011.

[14] Compiled from official statistics of the U.S. Department of Commerce.

[15] Jasinski, "Potash," January 2011; PotashCorp, "Q4 and Year End," January 28, 2010.

[16] IFDC, *North America Fertilizer Capacity*, 2010, 4.

Miscellaneous Plastic Products[1]

Brian Allen
(202) 205-3034
brian.allen@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $0.1 billion (7 percent) to $1.7 billion
U.S. exports: Increased by $3.5 billion (20 percent) to $21.2 billion
U.S. imports: Increased by $3.6 billion (19 percent) to $23.0 billion

Reversing a four-year trend of narrowing U.S. trade deficits for miscellaneous plastic products (MPPs), the deficit in 2010 increased slightly as a rise in U.S. imports outpaced a rise in U.S. exports. The most important factor in this trend—the U.S. deficit in MPP trade with China—continued to expand, reaching a record $6.7 billion. The growing deficit with China offset the $3.6 billion U.S. trade surplus with Canada and Mexico (table CH.6).

The higher trade numbers reflected growth in both volume and value in 2010. Owing to the U.S. and global economic recovery,[2] demand continued to strengthen for myriad plastic consumer items and certain plastic construction products purchased through mass merchandising discount outlets and retail chains, boosting volume and raising prices. Higher prices for key inputs in the manufacture of plastics, such as petroleum, also affected prices for MPPs.

U.S. Exports

U.S. MPP exports rose 20 percent to a record $21.2 billion in 2010, principally because of improving U.S. and trading-partner economies. In particular, the economic recovery drove trade with Canada and Mexico to record highs. U.S. and multinational participation in joint venture projects, especially in Asia,[3] also spurred U.S. exports. An overwhelming majority of U.S. MPP exports were in 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 product packaging and other purposes.[4] In 2010, Canada and Mexico were the main markets for MPPs, accounting for $10.7 billion (51 percent) of U.S. MPP exports. Latin American

[1] This industry/commodity group includes fabricated and semifabricated MPPs used for a wide variety of consumer and industrial products listed in Chapter 39 of the Harmonized Tariff Schedule of the United States (HTS). Selected examples 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. The United States is typically a net importer of MPPs from labor-intensive industries and a large net exporter in the plastic resins sector, which is generally more automated and relatively less labor intensive.

[2] NBER, "Business Cycle Dating Committee," September 20, 2010; IMF, "World Economic Outlook," October 2010.

[3] See Bregar, "U.S. Firms Should Target Growing Asian Nations," March 24, 2010.

[4] Compiled from official statistics of the U.S. Department of Commerce.

TABLE CH.6 Miscellaneous plastic products (CH033): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	4,894	5,173	5,559	4,785	5,594	808	16.9
China	714	923	1,046	1,106	1,483	377	34.0
Mexico	4,930	5,116	4,815	4,352	5,142	790	18.1
Japan	546	552	547	501	683	183	36.5
Germany	497	575	612	514	636	122	23.7
Taiwan	252	237	220	217	279	62	28.3
United Kingdom	620	713	701	549	643	94	17.1
Korea	269	271	302	264	381	117	44.3
Hong Kong	570	630	674	592	695	103	17.4
Belgium	378	505	571	391	425	34	8.7
All other	3,899	4,523	5,143	4,447	5,274	827	18.6
Total	17,570	19,218	20,189	17,719	21,235	3,516	19.8
EU-27	2,651	3,087	3,237	2,653	3,061	408	15.4
OPEC	245	366	496	387	438	51	13.1
Latin America	6,195	6,553	6,536	5,791	6,804	1,013	17.5
Asia	3,003	3,363	3,703	3,516	4,572	1,055	30.0
Sub-Saharan Africa	106	124	136	121	147	25	20.9
U.S. imports for consumption:							
Canada	5,869	5,554	5,407	4,392	4,867	475	10.8
China	6,456	7,237	7,576	6,818	8,185	1,368	20.1
Mexico	1,783	1,909	1,993	1,905	2,287	382	20.1
Japan	894	869	861	656	871	215	32.8
Germany	989	996	944	735	906	171	23.3
Taiwan	1,032	1,029	1,106	858	1,030	172	20.1
United Kingdom	477	496	505	427	489	62	14.5
Korea	666	587	601	544	682	138	25.3
Hong Kong	173	144	142	107	112	5	5.0
Belgium	172	149	134	110	154	44	40.0
All other	3,227	3,267	3,455	2,777	3,373	597	21.5
Total	21,738	22,235	22,726	19,328	22,956	3,628	18.8
EU-27	2,849	2,877	2,817	2,255	2,678	422	18.7
OPEC	31	33	38	20	59	39	192.1
Latin America	2,293	2,414	2,497	2,317	2,769	452	19.5
Asia	10,200	10,864	11,417	9,829	11,912	2,083	21.2
Sub-Saharan Africa	34	32	30	29	30	2	6.8

See footnote(s) at end of table.

TABLE CH.6 Miscellaneous plastic products (CH033): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-975	-381	151	393	727	334	84.9
China	-5,742	-6,315	-6,530	-5,711	-6,703	-991	-17.4
Mexico	3,147	3,208	2,821	2,447	2,855	407	16.6
Japan	-348	-317	-315	-155	-187	-32	-20.7
Germany	-492	-421	-332	-221	-270	-49	-22.2
Taiwan	-780	-792	-886	-640	-751	-111	-17.3
United Kingdom	144	217	195	122	154	32	26.0
Korea	-397	-315	-299	-280	-301	-21	-7.3
Hong Kong	397	487	532	485	583	98	20.1
Belgium	206	356	437	281	271	-10	-3.6
All other	673	1,256	1,688	1,670	1,900	231	13.8
Total	-4,168	-3,017	-2,537	-1,609	-1,721	-112	-7.0
EU-27	-197	210	420	398	384	-15	-3.7
OPEC	213	333	458	367	379	12	3.2
Latin America	3,902	4,139	4,040	3,473	4,035	562	16.2
Asia	-7,197	-7,501	-7,714	-6,312	-7,340	-1,028	-16.3
Sub-Saharan Africa	71	91	106	93	116	23	25.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

countries taken together (including Mexico) accounted for $6.8 billion (32 percent) of U.S. exports, followed by Asian countries with $4.6 billion (22 percent).

U.S. Imports

In 2010, the value of U.S. MPP imports increased $3.6 billion (19 percent) to a record $23.0 billion, continuing an upward trend interrupted only by the economic downturn in 2009. Imports from China generated 38 percent of the increase. China and Canada were the principal sources of U.S. MPP imports in 2010, together accounting for $13.1 billion (57 percent) of these imports. A number of factors contributed to the large increase in imports in 2010, including relatively strong consumer demand, the continued movement of U.S.-owned firms offshore, high energy and raw material prices, outsourcing to low-wage areas, and China's undervalued currency.[5] Many U.S. MPP imports in 2010 belonged to the product areas to which most U.S. MPP exports belonged: various consumer goods, packaging articles, and sheet and film used for packaging. Two other important categories of U.S. MPP imports were containers, boxes and crates; and tableware, kitchenware, and other household articles.[6]

[5] See Toloken, "Canton Fair Exhibitors Worry About Currency Issue"; "Ouch! Price Hikes Aplenty," *Plastics Today*, April 1, 2010; Bregar, "U.S. Firms Should Target Growing Asian Nations," March 24, 2010.

[6] Compiled from official statistics of the U.S. Department of Commerce.

Bibliography: Chemicals and Related Products

Apodaca, Lori. "Nitrogen (Fixed)—Ammonia." *2011 Mineral Commodity Summaries*. U.S. Geological Survey, January 2011. http://minerals.usgs.gov/minerals/pubs/mcs/2011/mcs2011.pdf.

Brice and Weddle. "Supply/Demand behind Olefins Rise." *ICIS Chemical Business,* February 14–20, 2011.

Bewley, Lindsey. "GPCA 2010: Demand Rebounds but Supply Additions Loom." *Chemical Week,* December 7, 2010.

———. "Strong Outlook for Mideast Aromatics Producers." *Chemical Week,* December 16, 2010.

Burridge, Elaine. "Methanol Prices Soar in Asia and US." *ICIS Chemical Business,* November 8, 2010.

Bregar, Bill. "U.S. Firms Should Target Growing Asian Nations." *Plastics News*, March 24, 2010.

Chemical & Engineering News. "World Chemical Outlook," January 1, 2011.

Chemical Week. "GPCA 2010: Demand Rebounds but Supply Additions Loom," December 7, 2010. http://www.chemweek.com/home/top_of_the_news/31400.html

———. "Petrochemicals," March 18, 2011. http://www.chemweek.com/sections/cover_story/32031.html.

CF Industries, Inc. "Very Strong Agriculture Fundamentals Provide Momentum Entering 2011." News release, February 17, 2011. http://phx.corporate-ir.net/phoenix.zhtml?c=190537&p=irol-newsArticle_print&ID=1530357&highlight=.

English, Alan, Jerry Rovner, John Brown, and Simon Davies, with updates by staff. "Methanol." In *Kirk-Othmer Encyclopedia of Chemical Technology.* 5th ed.Vol. 16. 299–316. Hoboken, NJ: Wiley, 2005.

Green Markets. *Fertilizer Market Intelligence Weekly*, November 2010.

Harpole, John. "Natural Gas Outlook." Presented at TFI Fertilizer Outlook Conference, November 2010.

Heffer, Patrick, and Michel Prud'homme. *Short-Term Fertilizer Outlook 2010–2011*. International Fertilizer Industry Association, December 2010. http://www.fertilizer.org/ifa/Home-Page/FERTILIZERS-THE-INDUSTRY/Market-outlooks.html.

Holland, Bill. "U.S. NGL Prices Dropping 20% on Ethane Overproduction." Platts.com, October 25, 2010.

ICIS Chemical Business. "Methanol." March 29, 2010.

———. "Supply/Demand Behind Olefins Rise," February 14–20, 2011, 16.

Jasinski, Stephen. "Potash." *2011 Mineral Commodity Summaries*. U.S. Geological Survey, January 2011. http://minerals.usgs.gov/minerals/pubs/mcs/2011/mcs2011.pdf.

International Fertilizer Development Center (IFDC). *North America Fertilizer Capacity*, December 2010.

International Monetary Fund (IMF). "World Economic Outlook: Recovery, Risk, Rebalancing." World Economic Outlook Update, October 2010. http://www.imf.org/external/pubs/ft/weo/2011/update/01/index.htm.

Joint Center for Housing Studies of Harvard University (JCHS). *The State of the Nation's Housing 2010*. Cambridge, MA: President and Fellows of Harvard College, 2010. http://www.jchs.harvard.edu/publications/markets/son2010/son2010.pdf (accessed April 14, 2011).

Lerner, Ivan, Dave Barry, Sergei Blagov, and Yu Guo. "PET Demand Surges, but Overcapacity Looms." *ICIS Chemical Business.* February 14, 2011.

PR Newswire, "Global Demand for Plastics Rises," March 1, 2011: http://www.prnewswire.com/news-releases/global-demand-for-plastics-rises-117130623.html, and ICIS Chemical Business, "Supply/Demand behind Olefins Rise," February 14-20, 2011. 16.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Plastics Today. "Ouch! Price Hikes Aplenty," April 1, 2010.

Platts Horizon: *Americas Petrochemical Outlook:* "Highlight: Platts Global Petrochemical Index," Winter 2010/11.

PotashCorp. "PhosChem Announces Six Million Tonne DAP Contract with Indian Customers." News release, March 22, 2010. http://www.potashcorp.com/news/943/.

———. "Q4 & Year End: PotashCorp's Second-Highest Fourth-Quarter Earnings Reflect Growing Demand." News release, January 27, 2011. http://www.potashcorp.com/news/1077/.

PR Newswire, "Global Demand for Plastics Rises," March 1, 2011.

Slater, Joseph, and Bill Kirby. *Commercial Fertilizers 2009*. Association of American Plant Food Control Officials and The Fertilizer Institute, March 2011.

Sullivan, Paul. "As Remodeling Rebounds, Some Caveats for the Homeowner." *New York Times*, March 18, 2011. http://www.nytimes.com/2011/03/19/your-money/home-insurance/19wealth.html.

Toloken, Steve. "Canton Fair Exhibitors Worry about Currency Issue." *Plastics News*, November 9, 2010.

Tsukimori, Osamu. "Japan's Cosmo Oil to Start ETBE Output from 2011." Reuters. January 9, 2009. http://www.reuters.com/assets/print?aid=UST9047320090109.

U.S. Department of Agriculture (USDA). World Agricultural Outlook Board (WAOB).

USDA Agricultural Projections to 2020. USDA Report OCE-111, February 14, 2011. http://www.ers.usda.gov/Publications/OCE111/OCE111fm.pdf.

USDA. National Agricultural Statistics Service (NASS). *Agricultural Prices*. USDA Report ISSN: 1937-4216, February 28, 2011.

U.S. Department of Commerce (USDOC). U.S. Census Bureau (Census). *New Residential Construction*, n.d. "Table Q1. New Privately Owned Housing Units Started in the United States by Purpose and Design." http://www.census.gov/const/www/quarterly_starts_completions.pdf (accessed April 14, 2011).

———. Fertilizers and Related Chemicals:–2009 Summary. Report MQ325B(09)-5, June 2010. http://www.census.gov/manufacturing/cir/historical_data/mq325b/index.html.

_____. Fertilizers and Related Chemicals:–Fourth Quarter 2010. Report MQ325B(10)-4, March 2011. http://www.census.gov/manufacturing/cir/historical_data/mq325b/index.html.

U.S. International Trade Commission (USITC). *Industrial Biotechnology: Development and Adoption by the U.S. Chemical and Biofuel Industries*. USITC Publication 4020. Washington, DC: USITC, 2008. http://www.usitc.gov/publications/332/pub4020.pdf.

Electronic Products

Jeanette Leary
(202) 205-2043
jeanette.leary@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $49.3 billion (29 percent) to $217.8 billion
U.S. exports: Increased by $16.9 billion (12 percent) to $159.9 billion
U.S. imports: Increased by $66.2 billion (21 percent) to $377.6 billion

The U.S. trade deficit in electronic products grew to a record $217.8 billion in 2010, driven largely by increasing deficits in computers, peripherals, and parts as well as telecommunications equipment. U.S. exports of electronic products grew by 12 percent as global demand recovered from the economic downturn, but they were outpaced by a 21 percent increase in imports.[1] While imports of electronic products well surpassed their pre-recession levels following a decline in 2009, exports have yet to fully recover lost ground.

China continued to be the largest contributor to the U.S. deficit in electronic products trade; China's share of that deficit was $130.2 billion in 2010 (table EL.1). China is a leading site for the production and assembly of electronic products for multinational companies around the world. Growing global demand for new mobile devices such as smartphones, tablet computers, and e-readers drove increases in demand for semiconductors, which are essential inputs to these products, as well as for telecommunications network equipment to accommodate surging data traffic.

U.S. Exports

U.S. exports of electronic products increased by $16.9 billion (12 percent) in 2010, as the global economy emerged from the recession and demand for such products recovered. Export growth was led by semiconductors and integrated circuits, up $6.2 billion (25 percent); measuring, testing, and controlling instruments, up $2.9 billion (15 percent); and medical goods, up $2.0 billion (7 percent) (table EL.2).

The leading destinations for U.S. exports of electronic products continue to be North American Free Trade Agreement partners Canada ($16.7 billion) and Mexico ($16.5 billion), which together accounted for about one-fifth of exports, followed by China ($13.5 billion), which accounted for 8 percent of U.S. exports in this sector. Exports to all of the United States' top 10 destinations for electronic products increased in 2010.[2]

U.S. exports of semiconductors increased as downstream industries, such as manufacturers of computers, telecommunications equipment, medical equipment, automotive goods, military products, and consumer electronics, recovered from the

[1] IMF, *World Economic Outlook*, 2010.
[2] The leading markets for U.S. exports of electronic products by rank are Canada, Mexico, China, Japan, Germany, the Netherlands, Malaysia, Korea, Singapore, and Hong Kong.

TABLE EL.1 Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	11,113	11,433	12,375	11,133	13,494	2,361	21.2
Mexico	18,357	18,394	18,246	14,903	16,539	1,636	11.0
Japan	11,538	10,794	9,791	8,521	9,662	1,141	13.4
Canada	18,378	18,183	18,474	15,227	16,703	1,476	9.7
Korea	8,423	7,264	6,426	5,437	6,378	941	17.3
Malaysia	6,960	5,832	6,812	4,889	6,451	1,562	31.9
Taiwan	5,911	6,296	6,391	3,732	4,659	927	24.8
Germany	9,114	9,345	8,892	7,639	8,183	544	7.1
Singapore	6,035	6,658	6,512	4,709	6,131	1,422	30.2
Thailand	2,662	2,628	2,487	1,855	2,496	641	34.6
All other	70,889	75,674	78,404	64,909	69,154	4,245	6.5
Total	169,381	172,502	174,810	142,955	159,850	16,894	11.8
EU-27	41,767	43,632	43,636	35,455	36,521	1,065	3.0
OPEC	4,829	5,352	5,960	5,461	5,270	-191	-3.5
Latin America	31,773	33,877	35,510	29,102	31,816	2,714	9.3
Asia	65,108	63,345	62,934	50,163	61,229	11,066	22.1
Sub-Saharan Africa	1,232	1,275	1,451	1,285	1,205	-80	-6.2
U.S. imports for consumption:							
China	103,289	116,467	117,986	110,793	143,716	32,923	29.7
Mexico	47,107	53,999	53,228	50,325	62,049	11,724	23.3
Japan	30,838	31,542	30,734	22,916	26,756	3,840	16.8
Canada	11,958	12,141	11,830	9,626	9,449	-176	-1.8
Korea	14,332	15,076	17,222	15,662	18,011	2,349	15.0
Malaysia	29,401	25,265	22,608	17,142	17,892	750	4.4
Taiwan	18,431	18,034	16,561	14,221	17,977	3,756	26.4
Germany	10,926	11,960	12,259	9,717	11,227	1,511	15.5
Singapore	10,296	10,852	8,476	6,788	8,060	1,272	18.7
Thailand	9,175	9,499	9,748	7,900	9,514	1,615	20.4
All other	46,732	48,174	50,973	46,330	52,963	6,634	14.3
Total	332,485	353,009	351,625	311,419	377,615	66,198	21.3
EU-27	36,405	38,114	40,399	32,502	37,091	4,589	14.1
OPEC	74	35	33	25	27	2	9.0
Latin America	50,280	57,046	56,466	55,269	69,861	14,592	26.4
Asia	224,948	236,023	232,665	203,563	251,508	47,945	23.6
Sub-Saharan Africa	85	94	95	81	87	6	7.4

See footnote(s) at end of table.

TABLE EL.1 Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-92,176	-105,034	-105,611	-99,660	-130,222	-30,562	30.7
Mexico	-28,750	-35,605	-34,981	-35,422	-45,509	-10,087	28.5
Japan	-19,300	-20,748	-20,943	-14,395	-17,095	-2,700	18.8
Canada	6,419	6,041	6,644	5,601	7,254	1,653	29.5
Korea	-5,908	-7,812	-10,796	-10,225	-11,633	-1,409	13.8
Malaysia	-22,441	-19,433	-15,795	-12,252	-11,441	811	-6.6
Taiwan	-12,520	-11,737	-10,170	-10,489	-13,318	-2,828	27.0
Germany	-1,813	-2,614	-3,367	-2,078	-3,044	-966	46.5
Singapore	-4,260	-4,194	-1,963	-2,079	-1,929	150	-7.2
Thailand	-6,513	-6,871	-7,261	-6,045	-7,019	-974	16.1
All other	24,157	27,500	27,431	18,579	16,191	-2,388	-12.9
Total	-163,105	-180,507	-176,815	-168,465	-217,765	-49,298	29.3
EU-27	5,362	5,519	3,237	2,953	-570	-3,523	([a])
OPEC	4,756	5,317	5,926	5,436	5,243	-193	-3.6
Latin America	-18,508	-23,169	-20,955	-26,167	-38,045	-11,878	45.4
Asia	-159,840	-172,678	-169,732	-153,400	-190,279	-36,879	24.0
Sub-Saharan Africa	1,147	1,181	1,356	1,204	1,117	-87	-7.2

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

TABLE EL.2 Electronic products: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Semiconductors and integrated circuits (EL015)	37,227	35,487	35,809	25,058	31,267	6,209	24.8
Measuring, testing, and controlling instruments (EL025)	19,669	20,963	22,195	19,251	22,161	2,910	15.1
Medical goods (EL022)	23,443	25,446	28,415	28,647	30,604	1,956	6.8
Computers, peripherals, and parts (EL017)	29,969	28,051	26,554	19,770	20,533	763	3.9
Telecommunications equipment (EL002)	14,779	16,882	17,151	13,417	13,601	184	1.4
All other	44,294	45,673	44,686	36,811	41,684	4,874	13.2
Total	169,381	172,502	174,810	142,955	159,850	16,896	11.8
U.S. IMPORTS:							
Increases:							
Computers, peripherals, and parts (EL017)	102,468	106,789	102,338	95,391	118,898	23,507	24.6
Telecommunications equipment (EL002)	53,318	60,699	64,331	60,299	74,065	13,767	22.8
Semiconductors and integrated circuits (EL015)	27,022	26,259	25,298	21,190	29,134	7,945	37.5
Consumer electronics (EL003)	54,831	57,581	55,257	47,186	51,031	3,845	8.1
Measuring, testing, and controlling instruments (EL025)	16,573	18,678	18,764	14,912	18,592	3,680	24.7
Miscellaneous electrical equipment (EL016)	3,738	3,653	3,857	3,638	5,587	1,949	53.6
All other	74,535	79,351	81,777	68,803	80,308	11,504	16.7
Total	332,485	353,009	351,622	311,419	377,615	66,196	21.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

global recession and began to increase production.[3] Moreover, consumer demand for new devices such as smartphones, e-readers, and tablet computers was particularly pronounced in 2010, which likely boosted global demand for semiconductors, as they are integral components of these products.[4] The major markets for U.S. semiconductor exports in 2010 were China, Malaysia, Taiwan, Korea, and Singapore, and which are also among the leading sources of U.S. imports of computers, peripherals, and parts (China, Malaysia, Singapore) and telecommunications equipment (China, Korea, Taiwan, and Malaysia). This reflects the global supply chain and Asia's role as a major site for manufacturing and assembly of electronic products.

In 2010, U.S. exports of measuring, testing, and controlling instruments surpassed U.S. exports of computer, peripherals, and parts for the first time, making the industry group the third largest exporter of electronic products, after semiconductors and medical goods. The increase in value of U.S. exports in 2010 was a result of the combination of global economic recovery and increased demand from end-use industries that required higher-precision instruments to meet stricter quality, safety, and environmental standards.[5] For example, U.S. exports to China of instruments for physical and chemical analysis constituted a major growth segment as the Chinese government continues to raise environmental protection standards.[6]

Medical goods exports continued to increase in 2010, buoyed by a recovering global economy and heightened consumption in leading markets such as Japan and Western Europe. Increased demand for medical devices in Japan likely coincided with the government's "health power strategy" which prioritizes public healthcare spending for Japan's large elderly population.[7]

U.S. Imports

U.S. imports of electronic products grew to a record $377.6 billion in 2010, more than rebounding from a decline in 2009 attributable to the U.S. recession. Major growth areas were imports of computers, peripherals, and parts (up $23.5 billion, or 25 percent); telecommunications equipment (up $13.8 billion, or 23 percent); and semiconductors and integrated circuits (up $7.9 billion, or 38 percent). China was by far the leading supplier of these imports, with more than double the value of the next largest supplier, Mexico. U.S. imports from both countries increased by more than 20 percent in 2010.

Growth in U.S. imports of computers and telecommunications equipment in 2010 reflects U.S. companies' willingness to upgrade or replace aging equipment—capital investments that were likely reduced or postponed during the recession.[8] Further, consumer demand grew for new technology products such as tablet computers and Internet-enabled smartphones, bolstered by major product launches and marketing campaigns in

[3] See the "Semiconductor and Integrated Circuits" section in this chapter for a more detailed discussion.

[4] Personal computers and mobile phones account for approximately 60 percent of global semiconductor demand. EIU, "World: Telecoms and Technology Outlook," September 22, 2010.

[5] See the "Measuring, Testing, and Controlling Equipment" section in this chapter for a more detailed discussion.

[6] IBISWorld, *Environmental Protection in China*, February 3, 2011, 7–9.

[7] EIU, "Japan: Healthcare and Pharmaceuticals Report," February 21, 2011; NPU, "The New Growth Strategy," June 18, 2010.

[8] EIU, "World: Telecoms and Technology Outlook," September 22, 2010.

2010.[9] The growing popularity of these mobile communication devices and their numerous applications is increasing the need for enhanced broadband capacity to accommodate greater data flows and prompting companies to invest in mobile and fixed broadband infrastructure.[10] The majority of these devices, as well as a growing amount of networking equipment, are produced or assembled in Asia, predominantly China. The increase in U.S. imports from China also reflected the emergence of indigenous Chinese companies that are supplying infrastructure equipment to U.S. carriers and gaining U.S. markets with their own smartphones and tablets, often at prices below those of U.S.-branded products.[11]

The growing market for new mobile electronic devices in 2010 also drove demand for semiconductors and integrated circuits, which are major inputs into these technologies.[12] Although the United States is still a net exporter of semiconductors, there is a long-term trend underway of shifting production to Asia.[13] As a result, many U.S. semiconductor firms are now "fabless"—that is, contracting with foundries overseas to complete the manufacturing according to a prescribed design. This trend contributed to increasing U.S. imports of semiconductors.[14]

U.S. Employment

Employment in the computer and electronic products manufacturing industry,[15] which corresponds roughly to the sectors exporting electronic products discussed in this overview, declined by 3 percent (37,000 jobs), from 1.14 million in 2009 to 1.10 million in 2010.[16] This indicated a slowing rate of decline when compared to 2009 when employment dropped 9 percent. The 2009 decline primarily reflects the impact of the recession on the high-tech manufacturing industry. The 2010 decline, on the other hand, reflects the long-term decline in U.S. manufacturing employment in this sector as production increasingly shifts abroad and productivity gains require fewer workers. From 2006 to 2010, industry employment declined by 16 percent, or 207,000 jobs.

---

[9] Wong, "The Most Memorable Product Launches of 2010," *Forbes*, December 3, 2010. http://www.forbes.com/2010/12/03/most-memorable-products-leadership-cmo-network.html. (accessed July 26, 2011).

[10] TIA, *ICT Market Review and Forecast*, 2011.

[11] See the "Telecommunications Equipment" section in this chapter for a more detailed discussion.

[12] EIU, "USA: Telecoms and Technology Report," February 1, 2011.

[13] Dewey & LeBoeuf, *Maintaining America's Competitive Edge*, March 2009, 14.

[14] See the "Semiconductor and Integrated Circuits" section in this chapter for a more detailed discussion.

[15] Computer and electronic products manufacturing employment is defined as NAICS 334, which captures the majority of industries included in "Electronic Products," as reported in this overview. Not included in NAICS 334 are medical supplies (besides electromedical equipment), fiber optic cable, photographic film, photocopying supplies, optical instruments, and office machinery manufacturing. Including, these categories would not affect the trends discussed in this chapter.

[16] Based on official statistics of the U.S. Department of Labor.

Telecommunications Equipment[1]

Jeanette Leary
(202) 205-2043
jeanette.leary@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $13.6 billion (29 percent) to $60.5 billion
U.S. exports: Increased by $0.2 billion (1 percent) to $13.6 billion
U.S. imports: Increased by $13.8 billion (23 percent) to $74.1 billion

Both U.S. exports and imports of telecommunications equipment grew in 2010 as the global economy recovered from the economic downturn and delayed infrastructure investments resumed.[2] However, the 1 percent ($184 million) increase in U.S. exports was insufficient to return export volumes to pre-recession levels, resulting in a $60.5 billion trade deficit in telecommunications equipment in 2010—the largest ever for this industry (table EL.3).

The growth in imports was driven primarily by increased demand for networking equipment for transmission of voice and data, as well as heightened consumer demand for mobile phones. The limited increase in exports—despite a recovery in global demand—may signal a more competitive environment facing U.S. exporters of telecommunications equipment in particular markets, notably China.

U.S. Exports

U.S. telecommunications equipment exports increased to 6 of the industry's top 10 destinations, led by the Netherlands (up 20 percent), along with NAFTA partners Mexico (up 20 percent) and Canada (up 9 percent).[3] Networking equipment accounted for 87 percent of U.S. telecommunications exports to the Netherlands, and was responsible for most of the export growth in this sector. Increased exports to the Netherlands may have been driven by an initiative to extend fiber networks to the homes in that country which requires advanced networking equipment produced in the United States.[4] Exports of networking equipment to Mexico grew as heightened competition among Mexican telecommunications carriers prompted Telmex to invest in fiber networks to improve broadband speed.[5] Although the United States is home to the global market leaders, manufacturing is increasingly done abroad, leaving domestic production to lower-volume, high-end routers and network switches.[6]

U.S. exports of telecommunications equipment declined in several leading markets in 2010, including Japan (down 9 percent), the United Kingdom (down 4 percent), China (down 18 percent), and Germany (down 8 percent). Exports to China experienced the

[1] This industry group includes cell phones, communications satellites, fax machines, switches, routers, modems, base stations, and other networking equipment for both wired and wireless infrastructure.
[2] IMF, *World Economic Outlook*, 2010.
[3] The Netherlands was the third largest market for U.S. exports of telecommunications equipment with $1.1 billion in 2010, up $179 million, or 20 percent. Data for the Netherlands is captured in EU-27 in table EL.3.
[4] Lightwave, "Genexis, Cisco Supply Gear for High-speed FTTH," February 11, 2010.
[5] TIA, *2011 ICT Market Review*, 2011, 5-96.
[6] Thormahlen, *Telecommunications Networking Equipment Manufacturing in the US*, October 2010.

TABLE EL.3 Telecommunications equipment (EL002): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	747	727	747	602	496	-106	-17.6
Mexico	1,949	2,081	2,151	1,830	2,187	356	19.5
Korea	324	387	360	269	274	6	1.9
Taiwan	153	196	204	140	153	13	9.3
Malaysia	230	159	235	189	141	-48	-25.4
Canada	1,309	1,516	1,535	1,269	1,387	118	9.3
Japan	770	888	781	692	628	-63	-9.1
Thailand	120	107	150	81	80	(a)	-1.2
Hong Kong	505	520	555	554	669	115	20.8
Sweden	128	112	110	67	56	-10	-16.4
All other	8,546	10,189	10,323	7,726	7,531	-196	-2.5
Total	14,781	16,882	17,151	13,419	13,601	184	1.4
EU-27	3,918	5,121	4,593	3,005	3,111	106	3.5
OPEC	1,293	1,334	1,204	1,066	604	-462	-43.3
Latin America	4,305	4,574	4,984	4,092	4,316	224	5.5
Asia	3,583	3,844	4,216	3,468	3,427	-41	-1.2
Sub-Saharan Africa	328	285	336	236	131	-105	-44.5
U.S. imports for consumption:							
China	18,083	23,814	24,029	22,615	30,637	8,022	35.5
Mexico	7,123	8,961	10,535	11,801	13,084	1,283	10.9
Korea	5,742	7,144	9,452	9,119	8,626	-493	-5.4
Taiwan	2,322	2,219	2,444	2,811	5,175	2,365	84.1
Malaysia	7,871	5,149	4,802	3,766	4,686	919	24.4
Canada	3,335	3,084	3,117	2,511	2,041	-470	-18.7
Japan	1,719	1,835	1,752	1,345	1,439	95	7.1
Thailand	2,042	2,117	2,030	1,475	1,891	415	28.2
Hong Kong	273	331	361	377	531	154	40.8
Sweden	587	389	670	394	1,116	722	183.1
All other	4,219	5,654	5,139	4,085	4,840	754	18.5
Total	53,316	60,697	64,331	60,299	74,065	13,767	22.8
EU-27	2,370	2,560	3,226	2,472	3,496	1,024	41.4
OPEC	44	11	6	3	6	3	100.0
Latin America	7,739	9,327	10,816	11,988	13,194	1,205	10.1
Asia	39,013	44,751	46,108	42,421	54,277	11,855	27.9
Sub-Saharan Africa	8	10	8	6	5	-2	-16.7

See footnote(s) at end of table.

TABLE EL.3 Telecommunications equipment (EL002): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-17,336	-23,087	-23,281	-22,013	-30,141	-8,128	36.9
Mexico	-5,174	-6,880	-8,384	-9,971	-10,898	-927	9.3
Korea	-5,419	-6,757	-9,092	-8,850	-8,352	498	-5.6
Taiwan	-2,169	-2,023	-2,240	-2,671	-5,023	-2,352	88.1
Malaysia	-7,641	-4,991	-4,568	-3,578	-4,545	-967	27.0
Canada	-2,026	-1,568	-1,582	-1,242	-654	588	-47.3
Japan	-949	-947	-971	-653	-811	158	24.2
Thailand	-1,922	-2,010	-1,880	-1,394	-1,810	-416	-29.8
Hong Kong	232	189	194	177	138	-39	-22.0
Sweden	-459	-278	-560	-327	-1,059	-732	-224.2
All other	4,327	4,535	5,183	3,641	2,691	-950	-26.1
Total	-38,535	-43,815	-47,180	-46,881	-60,464	-13,583	29.0
EU-27	1,548	2,560	1,367	533	-385	-918	(b)
OPEC	1,248	1,323	1,197	1,063	598	-465	-43.7
Latin America	-3,434	-4,753	-5,833	-7,896	-8,877	-982	12.4
Asia	-35,431	-40,907	-41,892	-38,953	-50,849	-11,896	30.5
Sub-Saharan Africa	320	276	328	230	127	-103	-45.2

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

largest percentage decline, causing the country to fall from the sixth-to-eighth largest U.S. export destination for telecommunications equipment. The decline in U.S. exports reflects the growing capability of indigenous Chinese companies to supply their own market. Most of the decline can be attributed to decreased exports of networking equipment, which fell by $77 million (22 percent) to $279 million in 2010. This decline likely corresponds to the rise of Chinese networking equipment companies Huawei and ZTE, which have been major suppliers to the rollout of third generation (3G) networks and upgrades to the fixed broadband networks in China. It is also indicative of falling U.S. production of these products as manufacturing is increasingly shifted overseas to low-labor cost countries.

U.S. Imports

Imports of cell phones, which increased $4.3 billion (13 percent) during 2009–10 to $36.9 billion, made up 50 percent of all U.S. telecommunications equipment imports in 2010. Smartphone penetration among U.S. mobile subscribers increased from 17 percent in 2009 to 27 percent in 2010 in response to aggressive marketing campaigns and the launch of new devices in 2010 with a broader range of prices and features, including the iPhone 4; the price-reduced iPhone 3GS; and a variety of devices using the rival Android operating system.[7] The broadening appeal of smartphones is evidenced by the fact that the fastest-growing age segments in the U.S. smartphone market were in nontraditional demographics: 13-to 17-year-olds and those 55 and above.[8]

Increased U.S. demand is tied closely to imports as the majority of cell phone production—even for U.S.-headquartered companies—occurs overseas. The top five import sources of cell phones—China ($16.9 billion), Korea ($7.5 billion), Mexico ($6.5 billion), Taiwan ($4.2 billion), and Canada ($608 million)—together accounted for 97 percent of all U.S. imports of cell phones. In 2010, U.S. imports of cell phones declined from Korea (down 8 percent), Mexico (5 percent), and Canada (41 percent), while increasing from China (up 29 percent) and Taiwan (95 percent). This reflects the commercial success in 2010 of Apple (U.S.), ZTE (China), and HTC (Taiwan), [9] produced primarily in China and Taiwan—as well as the struggles of LG (Korea) and RIM (Canada) to develop competitive smartphones.[10] In an effort to reduce costs, LG shut down all mobile phone production in Mexico in mid-2009, shifting it to China and Korea, which led to the decline in mobile phone exports from Mexico.[11]

Imports of networking equipment, which constitute 34 percent of all U.S. imports of telecommunications equipment in 2010, accounted for a majority of the growth in this

[7] The Apple iPhone 3GS and Apple iPhone 4 were the top two acquired phones in the United States in 2010. The iPhone 4 was launched in June 2010, and at the same time the price of the iPhone 3GS was reduced by 50 percent. ComScore, *Mobile 2010,* February 2011, 5–9; Gallagher, "Apple Lifts Wraps on Latest iPhone," June 7, 2010.

[8] ComScore, *Mobile 2010*, February 2011, 13.

[9] Much of Apple's production takes place in Asia, primarily China, by a Taiwanese contract manufacturing company. SEC, "Apple Inc," form 10-K for fiscal year ending September 25, 2010.

[10] The decline in cell phone imports from Canada was likely due to lackluster sales of RIM's BlackBerry, which struggled to maintain U.S. market share in the face of intense competition. Korean phone maker LG was a late entrant to the smartphone market and saw handset sales decline 25 percent in 2010. LG, *4Q Performance Results,* January 26, 2011; *Economist*, "LG's Woes," September 24, 2010; Rothman, "Underwhelming BlackBerry," August 4, 2010.

[11] Nystedt, "LG Reorganizes Operations," July 7, 2009.

sector.[12] Imports of networking equipment grew $7.9 billion (31 percent) during 2009–10 to $25.2 billion, which reflects the increased willingness of companies in the second half of 2010 to invest in telecommunications infrastructure following reduced capital expenditures during the second half of 2009.[13] In addition, rising wireless data traffic—resulting from the increased popularity of Internet-enabled mobile devices such as smartphones, e-readers, and tablets—contributed to demand for infrastructure investment to increase mobile broadband speed and capacity for transmission of voice, images, and data.[14] These trends are driving upgrades of 3G wireless networks as well as the construction of the next generation 4G networks by carriers in the United States. Wired Internet traffic also increased, reflecting growth in bandwidth-intensive services—such as Internet protocol television (IPTV) and video streaming, cloud computing, voice over Internet protocol (VoIP), and Web conferencing—in addition to a 10 percent increase (8.1 million) in the number of fixed broadband subscribers from 2009 to 2010.[15] These trends are spurring investment in fiber-optic broadband networks capable of providing faster and higher quality Internet access.

In 2010, the top five sources of U.S. imports of networking equipment—China ($9.3 billion), Mexico ($5.1 billion), Malaysia ($2.9 billion), Thailand ($1.5 billion), and Sweden ($942 million)—accounted for nearly 80 percent of networking equipment imports. Imports from all five countries grew in 2010, particularly imports from China, which rose by $3.1 billion (51 percent). With the exception of Sweden, a significant portion of these imports reflect the activities of U.S. companies that contract their manufacturing overseas. Imports of networking equipment from Sweden nearly tripled during 2009–10, as Stockholm-based Ericsson increased its penetration of the North American market in 2010.[16] Ericsson was a leading supplier to Metro PCS and Verizon, both of which launched commercial 4G networks in 2010 and served as a key supplier to AT&T in building 4G trial networks.[17]

[12]This is a conservative definition of networking equipment, which includes base stations and machines for the reception, conversion, and transmission or regeneration of voice, images or other data, including switches and routing apparatus. It does not include parts, which would further increase these figures.

[13] Ericsson, *Annual Report 2010*, n.d. (accessed March 24, 2011), 22; Cisco Systems Inc., *2010 Annual Report*, n.d. (accessed March 2, 2011), 10.

[14] The volume of global data traffic rose more than 60 percent in 2010. TIA, *ICT Market Review*, 2011, 1–5.

[15] TIA, *2011 ICT Market Review*, 2011, 1–9.

[16] Ericsson's North American sales more than doubled in 2010. Ericsson, *Annual Report 2010*, n.d. (accessed March 24, 2011).

[17] Ericsson, "Ericsson Launches First LTE Network," September 29, 2010; Ericsson, "LTE Rollout for AT&T," February 10, 2010.

Semiconductors and Integrated Circuits[1]

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

Change from 2009 to 2010:

U.S. trade surplus: Decreased by $1.7 billion (45 percent) to $2.1 billion
U.S. exports: Increased by $6.2 billion (25 percent) to $31.3 billion
U.S. imports: Increased by $7.9 billion (38 percent) to $29.1 billion

U.S. exports and imports of semiconductors and integrated circuits rose in 2010, primarily due to increased demand from customers in industries recovering from the global economic recession in 2009 (table EL 4).[2] U.S. exports grew more slowly than U.S. imports in 2010, in part because of the long-term shift in the industry toward manufacturing in Asia, shrinking the trade surplus by 45 percent.[3] For the third consecutive year, the U.S. trade surplus in semiconductors and integrated circuits decreased.

Global semiconductor sales increased by 32 percent to a record high of $298.3 billion in 2010.[4] The growth in the value of the semiconductor market in 2010 was the largest annual increase on record.[5] Demand from all end users, including the computer, telecommunications, consumer electronics, automotive, military and civilian sectors, increased sharply in 2010, due to the global economic recovery.[6] In general, consumers and businesses often increase purchases of these items during times of economic growth.[7]

U.S. Exports

The $6.2 billion (25 percent) increase in the value of U.S. exports of semiconductors and integrated circuits in 2010 reflected increased global demand for semiconductors rather than rising prices, as the average selling price of semiconductors remained constant.[8] Worldwide capacity utilization in the semiconductor industry has increased dramatically from an all-time low of 57 percent in the first quarter of 2009 to 96 percent in the second

[1] This industry/commodity group includes various types of semiconductors, of which electronic integrated circuits (ICs) are the largest subset, comprising roughly 83 percent in 2010. Major categories of integrated circuits include analog, logic, memories, and microcomponent devices. This analysis uses the terms "semiconductors" and "integrated circuits" interchangeably. Both are found in nearly all electronic devices.

[2] According to the National Bureau of Economic Research (NBER), the end of the recession and the beginning of the recovery in the United States occurred in June 2009. NBER, "Business Cycle Dating Committee," September 20, 2010.

[3] Currently, semiconductor production is globally distributed, with major producers located in the United States, Europe, Japan, Korea, and Taiwan.

[4] SIA, *Global Semiconductor Sales*, January 31, 2010.

[5] IC Insights, *The McClean Report 2011 Edition*, 2011, 2-26.

[6] IC Insights, *The McClean Report 2011 Edition*, 2011, 2–22.

[7] Historically, the change in global semiconductor growth has correlated closely to the change in global electronic system production as well as the change in global GDP. See IC Insights, *The McClean Report 2011 Edition*, 2011, 2–13 and 2–23.

[8] During 2009-10 the total number of semiconductors shipped increased from 564 billion to 740 billion (31 percent), while the average selling price remained at $0.42. IC Insights, *The McClean Report 2011 Edition*, 2011, figure 2–38.

TABLE EL.4 Semiconductors and integrated circuits (EL015): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	4,633	4,880	5,305	4,164	5,198	1,034	24.8
Malaysia	5,101	4,296	5,341	3,551	4,888	1,337	37.7
Taiwan	3,369	3,886	4,430	2,174	2,535	361	16.6
Korea	4,503	3,302	2,828	2,387	2,501	114	4.8
Japan	1,279	1,014	797	674	835	161	23.9
Philippines	4,173	3,803	3,513	1,729	2,295	565	32.7
Singapore	2,115	2,928	2,432	1,433	2,355	922	64.4
Costa Rica	935	902	961	803	617	-185	-23.1
Mexico	2,338	2,053	1,988	1,536	1,810	273	17.8
Thailand	1,208	1,213	1,030	832	1,272	440	52.9
All other	7,572	7,213	7,184	5,777	6,962	1,186	20.5
Total	37,227	35,490	35,809	25,060	31,267	6,209	24.8
EU-27	3,659	3,590	3,500	2,342	2,708	366	15.6
OPEC	60	78	124	110	55	-55	-50.0
Latin America	3,793	3,427	3,607	2,956	3,090	134	4.5
Asia	27,994	26,956	27,012	18,233	23,590	5,357	29.4
Sub-Saharan Africa	55	36	28	27	24	-3	-11.1
U.S. imports for consumption:							
China	2,128	2,279	2,053	1,981	3,820	1,839	92.8
Malaysia	3,214	2,876	2,914	2,171	3,951	1,780	82.0
Taiwan	4,406	4,455	4,524	3,189	3,732	542	17.0
Korea	2,939	2,490	2,619	2,206	2,994	789	35.8
Japan	3,264	3,393	3,336	2,331	3,300	968	41.5
Philippines	2,452	2,149	1,965	1,588	1,702	114	7.2
Singapore	1,925	1,732	1,367	940	1,579	639	67.9
Costa Rica	244	200	207	115	2,486	2,370	2,061.7
Mexico	831	819	777	866	1,102	236	27.3
Thailand	924	1,238	1,087	779	962	182	23.4
All other	4,695	4,628	4,448	5,022	3,508	-1,514	-30.2
Total	27,022	26,259	25,298	21,188	29,136	7,945	37.5
EU-27	2,639	2,985	2,918	1,652	2,046	394	23.8
OPEC	1	1	[a]	[a]	[a]	[a]	7.3
Latin America	1,097	1,038	1,006	993	3,605	2,612	263.0
Asia	21,611	20,954	20,168	15,388	22,317	6,929	45.0
Sub-Saharan Africa	2	3	1	1	4	3	300.0

See footnote(s) at end of table.

TABLE EL.4 Semiconductors and integrated circuits (EL015): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
China	2,505	2,600	3,252	2,182	1,378	-804	-36.9
Malaysia	1,887	1,420	2,427	1,380	937	-443	-32.1
Taiwan	-1,037	-569	-95	-1,015	-1,197	-181	17.9
Korea	1,564	812	209	181	-493	-674	(b)
Japan	-1,985	-2,379	-2,540	-1,657	-2,464	-807	48.7
Philippines	1,721	1,653	1,548	141	592	451	320.6
Singapore	190	1,196	1,065	492	775	283	57.4
Costa Rica	691	702	754	688	-1,868	-2,556	(b)
Mexico	1,506	1,233	1,211	670	708	37	5.6
Thailand	285	-26	-57	53	310	258	484.9
All other	2,877	2,585	2,736	755	3,455	2,700	357.8
Total	10,205	9,231	10,511	3,872	2,133	-1,740	-44.9
EU-27	1,021	605	582	690	663	-27	-4.1
OPEC	59	78	123	109	54	-55	-50.4
Latin America	2,697	2,389	2,601	1,963	-515	-2,478	(b)
Asia	6,383	6,002	6,844	2,845	1,273	-1,572	-55.3
Sub-Saharan Africa	54	33	27	26	20	-6	-23.1

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

quarter of 2010.[9] Similarly, in the United States, capacity utilization increased from 37 percent in the first quarter of 2009 to 85 percent in the fourth quarter of 2010.[10] This expansion was driven by aggregate production growth of 11 percent in major consuming industries during 2009–10.[11] U.S. exports to 9 of the top 10 U.S. semiconductor markets rose. Costa Rica was the only market to which U.S. semiconductor exports decreased.[12]

The stimulating effect of the global economic recovery on growth in U.S. exports was dampened by the long-term shift of semiconductor production to Asia.[13] The share of global semiconductor fabrication capacity that is located in the United States has steadily decreased, falling from about 42 percent in 1980 to 30 percent in 1990 and then to roughly 16 percent in 2007.[14] Principal factors contributing to this decline include the growth of competitors in Asia, the relocation of U.S. semiconductor production outside of the United States, and U.S. semiconductor firms' increasing reliance on independent contract manufacturers known as semiconductor foundries, located mainly in Asia, for some or all of their manufacturing capacity.[15] The growth of foundry production in Asia has occurred mainly in Taiwan. However, while China's share of global semiconductor production currently remains small, it is becoming an attractive location for major industry producers, including U.S. firms.[16]

In general, the semiconductor manufacturing that remains in the United States tends to produce higher-value semiconductors. This is likely due to the nature of the end markets in each region. The Asia-Pacific region is home to significant consumer electronic producers that require lower-value semiconductors, such as analog and standard logic devices.[17] The Americas market (of which the United States is the biggest part by far) consists of higher-value semiconductors such as NAND flash memories for advanced cell phones, PCs, and Apple Corporation's MP3 players.[18]

---

[9] IC Insights, *The McClean Report 2011 Edition*, 2011, 4–30.

[10] USDOC, Census, *Survey of Plant Capacity Utilization*, n.d. (access date April 14, 2011).

[11] IC Insights, *The McClean Report 2011 Edition*, 2011, 2–22.

[12] This decline was likely due to volume and value shifts within the global production chain of Intel Corporation (Intel), the world's largest semiconductor company. Intel is a U.S.-headquartered firm with production facilities in the United States and many locations abroad. It has a semiconductor assembly and test facility in Costa Rica and is by far the biggest semiconductor manufacturer in Costa Rica. Industry official, e-mail message to USITC staff, March 18, 2011.

[13] Montevirgen, *Industry Surveys: Semiconductors*, November 2010, 15.

[14] Dewey & LeBoeuf and SIA, *Maintaining America's Competitive Edge*, March 2009, 14.

[15] Dewey & LeBoeuf and SIA, *Maintaining America's Competitive Edge*, March 2009, 14. The growth of foundries abroad has coincided with the growth of fabless and "fab-lite" semiconductor companies in the United States. Fabless companies focus exclusively on designing semiconductor, contracting with foundries to manufacture the semiconductors. "Fab-lite" firms contract with foundries for a portion of their production. Fabless firms have grown over the past decade as a share of the global semiconductor industry, representing 23 percent of global IC sales in 2010, up from 7 percent in 1999. U.S. fabless firms represent most of these sales, as 9 of the top 10 fabless firms in 2010 were U.S. based. IC Insights, *The McClean Report 2011 Edition*, 2011, 3-7 to 3-12.

[16] For example, Intel Corporation, which does not contract out its semiconductor production, opened its first wafer fabrication facility in Asia in Dalian, China, in the fourth quarter of 2010. Intel Corporation, Annual Report 2010 (Form 10-K), 2011, 6.

[17] IC Insights, *The McClean Report 2011 Edition*, 2011, 2–53.

[18] IC Insights, *The McClean Report 2011 Edition*, 2011, 2–50. Although Apple does almost all its manufacturing outside the United States, industry sources consider integrated circuit purchases to be from the Americas region.

U.S. Imports

U.S. imports of semiconductors and integrated circuits from all 10 leading import sources rose in 2010, resulting in an overall $7.9 billion (38 percent) increase in U.S. imports of semiconductors. Again, this was due to the global economic recovery as U.S. electronic systems producers experienced higher demand, they in turn increased their consumption of semiconductors.

U.S. imports from China, Malaysia, and Costa Rica showed the greatest increases in terms of both percentage change and absolute value. Malaysia and China became the largest and second-largest sources, respectively, for U.S. imports of semiconductors in 2010. U.S. imports of semiconductors from Costa Rica climbed in 2010 to over $2.3 billion, an increase of over 2,000 percent from the 2009 total of $115 million. As a result, Costa Rica became the sixth-largest U.S. supplier in 2010. The value of U.S. imports from Costa Rica in 2010 was roughly on par with imports from established leading suppliers such as Korea and the Philippines. Besides greater global demand, changes in production and sourcing patterns and import values by key global firms such as Intel Corporation (Intel), likely substantially contributed to increased U.S. imports from China, Malaysia, and Costa Rica. For example, Intel has assembly and test facilities in all three countries and is by far the biggest semiconductor manufacturer in Costa Rica.[19]

[19] Industry official, e-mail message to USITC staff, March 22, 2011.

Measuring, Testing, and Controlling Instruments[1]

Linda White
(202) 205-3427
linda.white@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Decreased by $0.8 billion (18 percent) to $3.6 billion
U.S. exports: Increased by $2.9 billion (15 percent) to $22.2 billion
U.S. imports: Increased by $3.7 billion (25 percent) to $18.6 billion

The decrease in the U.S. trade surplus in measuring, testing, and controlling instruments was driven by a $3.7 billion growth in U.S. imports, which outpaced the $2.9 billion increase in U.S. exports (table EL 5). This industry is highly globalized, consisting of large multinational companies that source products and related components from their worldwide production locations to serve global markets. The increased value of U.S. exports and imports of these products in 2010 reflects the continued global economic recovery [2] and growing demand from end-use industries for advanced precision instruments to meet higher quality, safety, and environmental standards.[3]

U.S. Exports

China led the growth in U.S. exports in 2010, increasing by $508 million (27 percent) to $2.4 billion. U.S. exports to Canada, Japan, and Korea each followed suit, collectively rising by $764 million (19 percent) to $4.9 billion in 2010.[4]

U.S. exports of instruments used for physical and chemical analysis grew by $739 million (16 percent) to $5.3 billion,[5] with China accounting for $136 million of this increase. China's government has continued to raise environmental protection standards due to ongoing industrial growth and public concern about air pollution.[6] U.S. exports of parts

[1] This industry/commodity group covers a wide range of instruments, including surveying, meteorological, and geophysical instruments; instruments that measure atmospheric conditions (e.g., pyrometers, barometers, and hygrometers); instruments that measure flow, level, pressure, and other variables of liquids and gases (meters); instruments used in various physical and chemical analyses (e.g., chromatographs, electrophorus devices, and spectrophotometers); production meters for gas, liquid, and electricity supply; and instruments for measuring ionizing radiation.

[2] The OECD estimated that the real-world GDP grew by 4.6 percent in 2010 over 2009, compared with a negative growth rate of 1.0 percent in 2009 over 2008. OECD, "General Assessment of the Macroeconomic Situation," 2010, 12.

[3] Examples of such end-use industries include utilities, laboratories, construction, mining, automotive, and commodity manufacturing, particularly where computerized process control systems are used to compare, on an ongoing basis, real-time processing readings with a pre-established set of parameters. These measuring and control systems allow for immediate intervention as necessary. IBISWorld Inc., *Measuring, Testing, and Navigational Instrument Manufacturing*, November 2010, 9–16.

[4] Although Mexico continued to be a major market for this sector, U.S. exports to Mexico decreased in the past two years, down by $271 million (16 percent) in 2009 and by $9 million (almost 1 percent) in 2010.

[5] Physical and chemical measuring instruments are typically used in chemical laboratories and in manufacturing and processing operations. They include spectrometers, which measure properties of light for analyzing material composition; chromatographs and electrophoresis instruments, which separate and isolate molecules from other molecules of a mixture; and a variety of other instruments to measure gas and smoke, thermal burden, viscosity, expansion, and surface tension.

[6] IBIS World Inc., "Environmental Protection and Pollution Treatment Equipment Manufacturing in China: 3691," February 3, 2011, 7–9.

TABLE EL.5 Measuring, testing, and controlling instruments (EL025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Mexico	1,438	1,585	1,741	1,470	1,461	-9	-0.6
China	1,349	1,533	1,885	1,854	2,362	508	27.4
Canada	3,035	3,072	3,021	2,408	2,762	354	14.7
Germany	1,535	1,627	1,700	1,451	1,576	125	8.6
Japan	1,685	1,457	1,349	1,026	1,211	185	18.0
United Kingdom	909	957	1,074	880	947	67	7.6
Singapore	692	779	891	761	922	161	21.1
France	833	794	718	591	642	50	8.5
Korea	754	810	822	677	902	225	33.2
Malaysia	353	303	298	243	288	45	18.4
All other	7,087	8,047	8,697	7,888	9,087	1,199	15.2
Total	19,669	20,963	22,195	19,249	22,161	2,910	15.1
EU-27	5,470	5,756	6,086	5,052	5,528	476	9.4
OPEC	721	869	1,003	1,047	1,068	21	2.0
Latin America	2,468	2,869	3,269	2,838	3,095	257	9.1
Asia	6,672	6,823	7,159	6,422	8,005	1,583	24.7
Sub-Saharan Africa	195	270	291	303	385	82	27.9
U.S. imports for consumption:							
Mexico	2,800	3,066	2,735	2,422	3,258	836	34.5
China	1,471	1,746	1,995	1,658	2,181	524	31.6
Canada	1,496	1,652	1,598	1,224	1,343	119	9.7
Germany	2,299	2,548	2,519	1,928	2,348	420	21.8
Japan	2,447	2,578	2,511	1,738	2,294	556	32.0
United Kingdom	1,279	1,513	1,614	1,296	1,398	102	7.9
Singapore	302	377	425	327	465	138	42.3
France	624	742	723	646	707	61	9.5
Korea	134	151	182	186	303	117	62.9
Malaysia	565	706	767	524	782	258	49.2
All other	3,155	3,598	3,695	2,964	3,512	548	18.5
Total	16,573	18,678	18,764	14,912	18,592	3,678	24.7
EU-27	5,677	6,457	6,558	5,208	6,054	846	16.2
OPEC	13	7	6	7	5	-2	-28.6
Latin America	2,898	3,161	2,839	2,497	3,338	841	33.7
Asia	5,517	6,290	6,611	5,033	6,750	1,718	34.1
Sub-Saharan Africa	10	13	9	12	13	([a])	8.3

See footnote(s) at end of table.

TABLE EL.5 Measuring, testing, and controlling instruments (EL025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Mexico	-1,362	-1,481	-994	-952	-1,798	-845	88.8
China	-123	-213	-110	197	181	-16	-7.7
Canada	1,538	1,420	1,423	1,184	1,419	235	19.9
Germany	-764	-921	-819	-477	-771	-294	61.7
Japan	-762	-1,122	-1,162	-712	-1,083	-372	52.2
United Kingdom	-370	-556	-540	-415	-451	-35	-8.5
Singapore	390	402	465	434	456	22	5.2
France	210	52	-5	-55	-66	-11	18.2
Korea	620	659	640	491	599	108	21.9
Malaysia	-212	-403	-469	-280	-494	-213	75.8
All other	3,932	4,448	5,002	4,924	5,575	651	13.2
Total	3,098	2,286	3,431	4,336	3,569	-767	-17.7
EU-27	-207	-702	-472	-157	-526	-370	-237.0
OPEC	707	862	997	1,040	1,063	24	2.3
Latin America	-430	-291	430	341	-243	-584	([b])
Asia	1,155	533	549	1,389	1,255	-134	-9.7
Sub-Saharan Africa	186	257	281	291	372	81	27.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

for measuring, testing, and controlling instruments grew by the next largest amount, up by $699 million (13 percent) to $5.9 billion. U.S. exports to China and Canada accounted for most of this growth: exports to these two countries increased by a collective $197 million, or 20 percent, to $1.2 billion, reflecting the activities of major U.S. manufacturers in this sector that have production and distribution operations in China and Canada. The third-largest increase in exports from this product group was accounted for by instruments used to measure the flow, level, pressure, or other variables of liquid and gases.[7] Exports of these goods went up by $306 million (20 percent) to $1.8 billion; a substantial share of this growth was due to the rise in U.S. exports to Canada, which increased by $61 million (23 percent) to $329 million.

U.S. Imports

The growth in U.S. imports of measuring, testing, and controlling instruments resulted primarily from a general rise in demand from U.S. manufacturing, mining, and utility firms[8]—major markets for this sector. Although the U.S. dollar depreciated relative to the Mexican peso, Japanese yen, and Chinese yuan, the value of U.S. imports for this sector rose in 2010. Key contributing factors in this import growth were 1) intracompany transfers by major U.S. companies, 2) large global producers with facilities in the U.S. market (e.g., Germany), and 3) manufacturing operations in Mexico, Japan, and China. U.S. imports from all major suppliers grew in 2010, with imports from Mexico, Japan, China, and Germany increasing a collective $2.3 billion (30 percent) to $10.1 billion.

The 2010 growth in U.S. imports was primarily driven by increased imports of automatic regulating and controlling instruments, which grew by $859 million (37 percent) to $3.2 billion; imports from Germany, Japan, and Mexico accounted for a collective rise of $583 million (44 percent) to $2 billion. Much of the imports for this product group were directed to motor vehicle manufacturers. The second-largest product group growth was in U.S. imports of parts for measuring, testing, and controlling instruments which grew by $700 million (19 percent) to $4.3 billion in 2010. Most of these parts entered from China, Japan, and Mexico; imports of this product group from these three countries collectively grew by $356 million (28 percent) to $1.6 billion. These shifts illustrate the globalization of supply chains in this sector. The third-largest product group growth was for instruments that measure the flow, level, pressure, and other variables of liquids and gases, which grew by $460 million (36 percent) to $1.7 billion. Again, most of this growth was accounted for by China, Japan, and Mexico, with U.S. imports from these countries increasing by a collective $271 million (52 percent) to $790 million. This last product group has a wide variety of applications, none of which stood out in the imports of 2010; import growth was broadly distributed in this group.

[7] Liquid flow meters measure the rate of flow of a liquid in terms of volume or weight per unit of time. They are used both in open channels (rivers, waterways, etc.) and in closed conduits (e.g., pipes). Anemometers measure the rate of flow of air currents in mines, tunnels, conduits, furnaces, etc. Pressure gauges measure the pressure of a liquid or gas in a closed space and tend to be used in piping operations.

[8] DOC, BEA, *National Income without Capital Consumption Adjustment by Industry*, March 25, 2011, table 6.1D.

Bibliography: Electronic Products

Cisco Systems Inc. *2010 Annual Report*, n.d. (accessed March 2, 2011).

ComScore. *The 2010 Mobile Year in Review*, February 2011.

Dewey & LeBoeuf. On behalf of the Semiconductor Industry Association (SIA). *Maintaining America's Competitive Edge: Government Policies Affecting Semiconductor Industry R&D and Manufacturing Activity*. Semiconductor Industry Association, March 2009.

Economist. "LG's Woes," September 23, 2010. http://www.economist.com/node/17095760?story_id=17095760&fsrc=rss.

Economic Intelligence Unit (EIU). "Japan: Healthcare and Pharmaceuticals Report." *Industry Briefing and Forecasts*, February 21, 2011.

———. "United States of America: Telecoms and Technology Report." *Industry Briefing and Forecasts*, February 1, 2011.

———. "World: Telecoms and Technology Outlook." *Industry Briefing and Forecasts*, September 22, 2010.

Ericsson. *Annual Report 2010*, n.d. (accessed March 24, 2011). http://www.ericsson.com/thecompany/investors/financial_reports/2010/annual10/sites/default/files/Ericsson_AR_2010_EN.pdf.

———. "Ericsson Launches First LTE Network in North America." News release, September 29, 2010. http://www.ericsson.com/thecompany/press/releases/2010/09/1447673.

———. "LTE Rollout for AT&T in the US." News release. February 10, 2010. http://www.ericsson.com/thecompany/press/releases/2010/02/1382917.

Gallagher, Dan. "Apple Lifts Wraps on Latest iPhone." *MarketWatch*, June 7, 2010. http://www.marketwatch.com/story/apple-lifts-wraps-on-fourth-generation-iphone-2010-06-07.

IBISWorld Inc. *Environmental Protection and Pollution Treatment Equipment Manufacturing in China: 3691*. IBIS World Industry Report, February 3, 2011.

———. *Measuring, Testing and Navigational Instrument Manufacturing in China: 3691*. IBISWorld and ACMR China Industry Report, February 3, 2011.

———. *Measuring, Testing and Navigational Instrument Manufacturing in the U.S.* IBISWorld Industry Report 33451a, November 2010.

IC Insights. *The McClean Report 2011: A Complete Analysis and Forecast of the Integrated Circuit Industry*. Scottsdale, AZ: IC Insights, Inc., 2011.

Intel Corporation. U.S. Securities and Exchange Commission, Annual Report Pursuant to Section 13 or 15 (D) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended December 25, 2010. (Form 10-K). Securities and Exchange Commission.

International Monetary Fund (IMF). *World Economic Outlook: Recovery, Risk, and Rebalancing*. Washington, DC: IMF, 2010. http://www.imf.org/external/pubs/ft/weo/2010/02/index.htm.

———. "World Economic Outlook Update," January 25, 2011. http://www.imf.org/external/pubs/ft/weo/2011/update/01/index.htm.

LG. *4Q 2010 Performance Results*, January 26, 2011. http://www.lg.com/global/ir/reports/earning-release.jsp.

Lightwave. "Genexis, Cisco Supply Gear for High-Speed FTTH connection in Dutch Town of Zeewolde," February 11, 2010. http://www.lightwaveonline.com/fttx/news/Genexis-Cisco-supply-gear-for-high-speed-FTTH-connections-in-Dutch-town-of-Zeewolde-84167747.html.

Martin, Scott. "Tablets Take PC Evolution to Next Level." *USA Today*, March 21, 2011. http://www.usatoday.com/tech/news/2011-03-21-ipad-vs-pc.htm#.

Montevirgen, Clyde. *Industry Surveys: Semiconductors*. Standard & Poor's Industry Surveys. New York: Standard & Poor's, November 2011.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee," September 20, 2010. http://www.nber.org/cycles/sept2010.html.

National Policy Unit (NPU). *On the New Growth Strategy: Blueprint for Revitalizing Japan*. Provisional translation, June 18, 2010. http://www.npu.go.jp/policy/policy04/pdf/20100706/20100706_newgrowstrategy.pdf.

Nystedt, Dan. "LG Reorganizes Operations in Mexico, Shutting Factories." *PCWorld*, July 7, 2009. http://www.pcworld.com/article/167945/lg_reorganizes_operations_in_mexico_shutting_factories.html.

OECD. "General Assessment of the Macroeconomic Situation." *OECD Economic Outlook*, 2010/2, no. 88. Paris, France: OECD, 2010.

Semiconductor Industry Association (SIA). "Global Semiconductor Sales Hit Record $298.3 Billion in 2010." News release, January 31, 2011.

Telecommunications Industry Association (TIA). *TIA's 2011 ICT Market Review and Forecast*, 2011.

Thormahlen, Casey. *Telecommunications Networking Equipment Manufacturing in the US*. IBISWorld Industry Report 33421, October 2010.

United States Securities and Exchange Commission (SEC). "Apple Inc." Form 10-K. Fiscal year ending September 25, 2010.

U.S. Department of Commerce (USDOC). U.S. Bureau of Economic Analysis (BEA). National Income Without Capital Consumption Adjustment by Industry. Table 6.1D.

U.S. Department of Commerce (USDOC). Bureau of Labor Statistics (BLS), Current Employment Statistics (CES) Database (accessed March 18, 2011).

USDOC. U.S. Census Bureau (Census). *Survey of Plant Capacity Utilization*, undated. http://www.census.gov/manufacturing/capacity/historical_data/index.html (accessed April 15, 2011).

Wong, Elaine. "The Most Memorable Product Launches of 2010," *Forbes*, December 3, 2010. http://www.forbes.com/2010/12/03/most-memorable-products-leadership-cmo-network.html

Energy-Related Products

Cynthia B. Foreso
(202) 205-3348
cynthia.foreso@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $51.7 billion (26 percent) to $252.7 billion
U.S. exports: Increased by $25.6 billion (43 percent) to $85.5 billion
U.S. imports: Increased by $77.3 billion (30 percent) to $338.2 billion

The U.S. trade deficit in the energy-related products sector[1] increased by 26 percent (table EP.1) in 2010, due chiefly to rising prices and higher import quantities of certain energy products. During 2009–10, most energy-related products (e.g., natural gas and electricity) followed the rising trends in crude petroleum prices. The U.S. trade deficit with Canada, the primary U.S. trading partner for energy-related products, accounted for 28 percent of the total U.S. trade deficit in these products. The U.S. trade deficit in these products with OPEC member countries rose by 33 percent to $127.2 billion in 2010. The combined trade deficit with OPEC members Nigeria, Venezuela, Saudi Arabia, and Algeria accounted for about 50 percent of the total U.S. deficit. The U.S. trade deficit with Latin American countries, which made up about 21 percent of the total U.S. trade deficit in this sector in 2010, grew 6 percent to $52.6 billion.

Crude petroleum

The U.S. trade deficit for crude petroleum grew 31 percent to $195.5 billion, primarily due to higher world crude petroleum prices, which rose from an average of $56.35 per barrel in 2009 to an average of $73.80 per barrel during 2010 (table EP.2).[2] The world price for crude petroleum rose as a result of stronger demand in China, India, and Brazil; the beginning of the economic recovery in the major consuming nations, such as the United States, the members of the European Union, and other developed countries;[3] and disruptions in crude petroleum supply resulting from civil unrest in Nigeria.[4]

Natural gas

Despite a slight decline in U.S. imports of natural gas by volume, the U.S. trade deficit in natural gas grew by 8 percent to $23.2 billion in 2010 as U.S. and Canadian prices rose from $3.67 per thousand cubic feet in 2009 to $4.18 per thousand cubic feet in 2010. Natural gas prices generally rise along with crude petroleum prices.

[1] The quantity and price data presented in this chapter are derived primarily from official statistics of the U.S. Department of Energy.
[2] In late December 2010, world prices for crude began a steady increase.
[3] The National Bureau of Economic Research (NBER), "Business Cycle Dating Committee, National Bureau of Economic Research," September 20, 2010. http://www.nber.org/cycles/sept2010.html.
[4] *Oil & Gas Journal*, "Worldwide Report," December, 6, 2010.

TABLE EP.1 Energy-related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	8,953	10,563	16,772	10,127	12,436	2,308	22.8
Mexico	5,925	7,015	11,329	7,948	14,471	6,523	82.1
Nigeria	120	84	448	325	617	292	89.6
Venezuela	636	644	637	797	654	-143	-18.0
Saudi Arabia	49	69	94	70	70	(a)	(z)
Russia	48	84	116	103	187	84	81.2
Algeria	47	191	54	86	17	-69	-79.7
Colombia	209	289	1,047	1,244	2,311	1,067	85.8
Angola	3	7	9	47	4	-42	-90.5
Brazil	891	1,093	2,381	2,022	4,368	2,346	116.0
All other	22,118	26,634	48,851	37,058	50,332	13,274	35.8
Total	38,999	46,674	81,737	59,827	85,468	25,641	42.9
EU-27	6,896	7,449	15,653	12,581	14,213	1,632	13.0
OPEC	1,822	1,732	1,921	2,652	3,585	933	35.2
Latin America	15,311	19,151	31,722	23,444	39,593	16,149	68.9
Asia	5,258	6,014	8,978	8,146	12,229	4,084	50.1
Sub-Saharan Africa	548	667	1,538	1,166	1,493	327	28.0
U.S. imports for consumption:							
Canada	73,748	79,138	111,953	64,367	82,587	18,220	28.3
Mexico	32,116	33,549	42,626	24,214	33,102	8,887	36.7
Nigeria	27,800	32,431	38,028	19,136	29,148	10,012	52.3
Venezuela	32,598	34,031	45,277	25,044	28,901	3,856	15.4
Saudi Arabia	28,154	31,381	48,651	18,916	26,278	7,362	38.9
Russia	10,195	11,234	17,313	12,768	18,248	5,481	42.9
Algeria	12,062	14,325	15,994	9,122	12,861	3,739	41.0
Colombia	5,051	5,069	8,322	6,490	10,337	3,847	59.3
Angola	11,467	12,148	18,618	9,225	11,552	2,327	25.2
Brazil	3,582	3,950	8,345	6,118	7,000	882	14.4
All other	82,395	87,571	117,198	65,476	78,170	12,694	19.4
Total	319,168	344,829	472,325	260,878	338,184	77,306	29.6
EU-27	26,057	28,011	33,956	18,970	22,150	3,180	16.8
OPEC	132,176	144,043	201,637	98,097	130,793	32,696	33.3
Latin America	90,843	92,898	124,181	73,035	92,230	19,195	26.3
Asia	7,311	8,178	7,055	4,223	7,214	2,992	70.8
Sub-Saharan Africa	47,814	54,238	71,727	37,674	51,266	13,592	36.1

See footnote(s) at end of table.

TABLE EP.1 Energy-related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-64,796	-68,575	-95,182	-54,239	-70,151	-15,912	-29.3
Mexico	-26,191	-26,534	-31,297	-16,267	-18,631	-2,364	-14.5
Nigeria	-27,679	-32,347	-37,579	-18,811	-28,531	-9,720	-51.7
Venezuela	-31,962	-33,387	-44,640	-24,248	-28,247	-3,999	-16.5
Saudi Arabia	-28,106	-31,312	-48,557	-18,846	-26,208	-7,362	-39.1
Russia	-10,147	-11,150	-17,197	-12,664	-18,061	-5,397	-42.6
Algeria	-12,015	-14,135	-15,940	-9,036	-12,844	-3,807	-42.1
Colombia	-4,842	-4,780	-7,275	-5,247	-8,026	-2,779	-53.0
Angola	-11,464	-12,141	-18,609	-9,178	-11,548	-2,370	-25.8
Brazil	-2,690	-2,857	-5,965	-4,096	-2,633	1,464	35.7
All other	-60,277	-60,936	-68,347	-28,418	-27,838	581	2.0
Total	-280,170	-298,155	-390,588	-201,051	-252,716	-51,666	-25.7
EU-27	-19,161	-20,563	-18,303	-6,388	-7,937	-1,548	-24.2
OPEC	-130,354	-142,311	-199,716	-95,445	-127,208	-31,763	-33.3
Latin America	-75,532	-73,748	-92,459	-49,591	-52,637	-3,046	-6.1
Asia	-2,053	-2,164	1,923	3,923	5,015	1,092	27.8
Sub-Saharan Africa	-47,266	-53,571	-70,188	-36,508	-49,773	-13,266	-36.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Less than 0.05 percent.

TABLE EP.2 Energy-related products: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Petroleum products (EP005)	26,407	31,484	58,765	42,048	61,131	19,083	45.4
Coal, coke, and related chemical products (EP003)	5,179	5,877	10,255	8,079	12,612	4,533	56.1
Decreases:							
Crude petroleum (EP004)	852	993	2,296	1,620	1,384	-236	-14.5
All other	6,562	8,320	10,420	8,080	10,340	2,260	28.0
Total	38,999	46,674	81,737	59,827	85,468	25,641	42.9
U.S. IMPORTS:							
Increases:							
Crude petroleum (EP004)	171,243	186,476	274,950	150,809	196,862	46,053	30.5
Petroleum products (EP005)	89,448	98,577	126,441	72,581	97,889	25,308	34.9
Natural gas and components (EP006)	45,118	44,910	52,757	26,840	31,001	4,161	15.5
All other	13,359	14,866	18,177	10,647	12,431	1,784	16.8
Total	319,168	344,829	472,325	260,878	338,184	77,306	29.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

Petroleum products

The U.S. trade deficit in petroleum products increased by 20 percent to $36.8 billion in 2010, primarily as a result of increased prices for the feedstock, crude petroleum. The quantity of U.S. exports of petroleum products increased by 13 percent, while the quantity of U.S. imports decreased by about 1 percent. U.S. refineries meet over 90 percent of U.S. demand for the various petroleum products, keeping imports of these goods relatively low. (See "Petroleum Products" write-up for more detailed information.)

Coal, coke, and related chemical products

The U.S. trade surplus in coal, coke, and related chemical products increased by 84 percent as U.S. exports increased significantly both in value and in quantity. U.S. exports of coking coal, used in steelmaking, rose to an estimated 55 million short tons[5] in 2010, the highest level since 1991, as global steelmaking recovered. (See "Coal, Coke, and Related Chemical Products" write-up for more detailed information.)

U.S. Exports

U.S. exports of energy-related products increased by 43 percent to $85.5 billion in 2010. Mexico and Canada, were the leading markets for U.S. exports. The leading energy-related products exported from the United States are coal and natural gas, along with relatively small quantities of crude petroleum and petroleum products. U.S. exports of energy-related products to Mexico nearly doubled in value because of both price increases and quantity increases for petroleum products. U.S. exports of energy-related products to Canada remained relatively stable in quantity from 2009 to 2010. U.S. exports of energy-related products to OPEC countries increased by 35 percent in terms of value but decreased by 1 percent in quantity.

Crude petroleum

U.S. exports of crude petroleum are prohibited, with certain exceptions; as a result they are minimal, accounting for less than 0.5 percent of domestic production.[6] In terms of quantity, these exports of crude petroleum remained relatively stable, decreasing only slightly from 16 million barrels in 2009 to 15 million barrels in 2010.

Natural gas

U.S. exports of natural gas (pipeline and liquefied) increased from $5.3 billion in 2009 to $7.8 billion in 2010. The value of U.S. exports of natural gas rose because of both price increases and quantity increases. Quantity increased by 4 percent to 1.1 trillion cubic feet in 2010; 95 percent of these exports were pipeline natural gas. Canada remains the

[5] Short tons are a unit of measure equal to 2,000 pounds.

[6] U.S. exports of crude petroleum have been prohibited since 1973, except as approved by the U.S. government. Canada has been the only consistent market for these exports, which are part of a commercial exchange agreement between U.S. and Canadian refiners that has been approved by the secretary of the Department of Energy. In May 1996, the President determined that allowing exports of Alaskan North Slope (ANS) crude was in the national interest, thus ending the 23-year ban on ANS crude exports. However, the president can impose new export restrictions if severe crude petroleum supply shortages occur. In 2010, for the first time, the United States exported crude petroleum to Brazil as part of a test exchange of crude for petroleum products, similar to the exchange agreement between the United States and Canada.

primary U.S. export market, as most of the U.S. trade in natural gas is via pipelines shared with Canada and, to a lesser extent, Mexico, with trade fluctuating from year to year based on market size along the pipeline.[7] U.S. exports to Canada have grown in recent years, as several new and larger pipelines became operational in 2008. The new pipelines were designed to carry natural gas to Western Canada where climate and terrain make it difficult to produce natural gas from conventional sources.[8] U.S. exports to Mexico have remained relatively stable, decreasing slightly in quantity by 1 to 2 percent annually since 2008.[9]

The volume of U.S. exports of liquefied natural gas (LNG), primarily to Japan and Korea, nearly doubled in 2010, while the price rose from $8.40 per thousand cubic feet in 2009 to $9.53 per thousand cubic feet in 2010. This increase in the quantity and price of U.S. LNG exports is the result of increased global demand for the product as consuming countries attempted to diversify their energy sources and to supplement shrinking LNG exports from Trinidad and Tobago, which showed declining reserves in 2010.[10]

Petroleum products

Mexico was the primary market for U.S. exports of petroleum products in 2010. These exports, which were primarily gasoline and distillate and residual fuel oils, rose from 117.5 million barrels in 2009 to 163.0 million barrels in 2010. The steep increase in U.S. exports to Mexico is attributable to the drop in production in Mexico following the early September shutdown of PEMEX's Cadereyta refinery after an explosion and fire.[11]

U.S. exports of petroleum products to Brazil more than doubled, rising to 44.5 million barrels in 2010. The increase was almost completely made up of exports of distillate fuel oils used for industrial purposes in response to refinery shutdowns due to maintenance requirements in several Brazilian refineries during 2010.

Coal, coke, and other chemical related products

In 2010, U.S. exports of coal, coke, and other chemical related products increased in value by 56 percent to $12.6 billion, while the quantity of exports increased by 47 percent to about 74 million short tons. The sharp increase in sector exports is due to high demand for U.S. coking coals; these exports were principally consumed by the global steel industry, which saw a strong recovery in 2010. The United States is the world's leading exporter of such coals, which are considered to be of the highest quality available. U.S. exports of coal, coke, and other chemical related products to Brazil increased from 7.4 million short tons in 2009 to 8.3 million short tons in 2010 to satisfy Brazilian demand for coking coals for industrial use.

U.S. Imports

In 2010, U.S. imports of energy-related products increased by 30 percent to $338.2 billion. As with exports, both price and quantity increases contributed to this growth,

[7] USDOE, *Monthly Energy Review*, April 2011.

[8] Because of the high level of trade along the 22 existing U.S.-Canadian border pipelines crossing points, some experts contend that the United States and Canada are actually one market.

[9] Official statistics of the U.S. Department of Energy.

[10] Official statistics of the U.S. Department of Energy.

[11] *Oil & Gas Journal*, "Refining Report," March 7, 2011.

although price was the predominant factor for imports. Canada remained the leading source of U.S. imports of energy-related products, with Mexico, Nigeria, Venezuela, and Saudi Arabia being the other major U.S. import suppliers. In terms of quantity, crude petroleum continued to be the primary energy product imported in 2010, accounting for 58 percent of total sector imports; petroleum products accounted for 28 percent, and natural gas for 10 percent, with the rest being primarily coal and electricity.

Crude petroleum

The United States is the world's largest net importer of crude petroleum, the feedstock for the production of petroleum products, such as gasoline, distillate and residual fuel oils, and petrochemicals used in the production of finished products such as plastics. The value of U.S. imports of crude petroleum rose by 31 percent to $196.9 billion in 2010. In quantity terms, however, U.S. imports of crude petroleum rose by only 1.5 percent to 3.3 billion barrels in 2010 as refineries used inventories of crude that had been stockpiled during months when crude prices were lower and more stable. U.S. imports of crude petroleum continued to account for more than 60 percent of domestic consumption.

Canada, which has been the primary U.S. import source of crude petroleum for decades, continued to be the largest single supplier of crude petroleum to the U.S. market in 2010, accounting for 28 percent of the total volume of imports. Large multinational energy companies operate in both countries and exchange crude and petroleum products across the border. Also, an integrated system of shared pipelines crossing the U.S.-Canadian border makes it easy to transport crude petroleum from the wellhead to refineries.

In terms of quantity, U.S. imports of crude petroleum from the EU decreased from 108 million barrels in 2009 to 88.9 million barrels in 2010. OPEC members together accounted for another 54 percent of the total quantity imported. The value of U.S. imports of crude petroleum from Nigeria increased by nearly 50 percent; however, in terms of quantity, imports increased by 20 percent. Nigeria, which accounted for about 10 percent of total U.S. imports of crude petroleum in 2010, continued to produce over its OPEC quota. Nigerian Bonny Light crude is a light, sweet, higher-valued crude similar in chemistry to West Texas Intermediate and UK Brent and it is one of the crudes preferred by U.S. refineries for its high yield of lighter, higher-valued petroleum products.

Natural gas

The value of U.S. imports of natural gas rose 16 percent to $31.0 billion in 2010 due entirely to higher prices. In terms of quantity, U.S. imports of natural gas actually decreased slightly, slipping from 3.8 trillion cubic feet in 2009 to 3.7 trillion cubic feet in 2010. About 90 percent of U.S. trade in natural gas is via pipelines; the rest is imported as LNG. Canada remains the primary U.S. supplier accounting for 99 percent of pipeline natural gas imports. U.S. imports of pipeline natural gas decreased by 1 percent to 3.3 trillion cubic feet in 2010, as Canada continued to concentrate on developing oil sands projects, which resulted in decreased Canadian supplies of natural gas.

The quantity of U.S. imports of LNG also declined by 5 percent, falling to 431 million cubic feet in 2010. The decline in LNG imports is attributed to decreased production and reserve estimates in Trinidad, which accounted for more than 49 percent of total U.S. LNG imports in 2010; Trinidad continued to reduce production at some locations because

the price of LNG remained low during most of 2010 and did not rise until the last quarter of 2010.

Petroleum products

U.S. imports of refined petroleum products from Canada—the leading U.S. supplier—also increased in quantity, from 195.8 million barrels in 2009 to 204.6 million barrels in 2010. Most of the U.S. imports of refined petroleum products from Canada are distillate and residual fuel oils and gasoline (including motor fuel blending stocks).

U.S. imports of refined petroleum products fell in quantity because in 2010 strikes in France caused many of the country's refineries to shut down for part of the year.[12] France normally supplies much of the EU demand and then exports the remainder to the United States.[13] Most U.S. imports of refined petroleum products from the EU are distillate fuel oils and motor fuel blending stocks. The United Kingdom and the Netherlands (the shipping point for most of the EU's exports of petroleum products) are the largest import suppliers, each accounting for about 25 percent of U.S. imports of these products. [14]

Coal, coke, and related chemical products

U.S. imports of coal, coke, and related chemical products increased to $5.3 billion in 2010. Canada and Colombia were the leading suppliers of coal; Canada, Colombia, China, and the United Kingdom were the leading suppliers of U.S. coke imports in 2010; and Saudi Arabia was the leading supplier of chemicals produced from coal, which include some primary petrochemicals.

[12] *Oil & Gas Journal,* "Refining Report," March 7, 2011.
[13] *Oil & Gas Journal*, "Refining Report," March 7, 2011.
[14] See "Energy-Related Products" chapter for more information.

Coal, Coke, and Related Chemical Products[15]

Cynthia B. Foreso
(202) 205-3348
cynthia.foreso@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $3.3 billion (84 percent) to $7.3 billion
U.S. exports: Increased by $4.5 billion (56 percent) to $12.6 billion
U.S. imports: Increased by $1.2 billion (29 percent) to $5.3 billion

The U.S. trade surplus in these products increased by 84 percent in 2010 as the value of U.S. exports rose substantially, outweighing strong import increases (table EP.3); in contrast, the quantity of U.S. imports actually decreased. The United States accounts for the largest share (25 percent) of the world's recoverable coal reserves and is a major world supplier and net exporter of coal. The U.S. trade surplus in these goods with the EU increased by 44 percent and by 84 percent with Asian nations in 2010 as the world economy began to recover and steel and foundry production in these countries started to rise.

U.S. Exports

U.S. exports of coal increased in value by 56 percent in 2010 to $12.6 billion, while the quantity of exports increased by 47 percent to about 74 million short tons. The sharp increase in sector exports resulted from high foreign demand for U.S. coking coals, which are primarily bituminous coals.[16] U.S. exports of coking coal rose to an estimated 55 million short tons in 2010, the highest level since 1991, largely as the result of growing demand from the global steel industry, which uses coke as an input in the integrated steelmaking process.

In terms of quantity, Brazil remained the largest buyer of exported U.S. coking coal in 2010. U.S. exports of coking coal also increased significantly to the Netherlands, Poland, Turkey, Ukraine, China, India, Japan, and South Korea.[17] Substantial growth in steel production in these countries, combined with international coal supply shortages (mainly due to weather and transportation bottlenecks in other coal-exporting countries) and the superior quality of U.S. coking coals, fostered the growth in U.S. exports of coking coals.

U.S. Imports

U.S. imports of coal increased by 29 percent in value to $5.3 billion in 2010. In terms of quantity, U.S. imports decreased by 15 percent to 26.0 million short tons, which paralleled U.S. consumption, which declined by about 8 percent in quantity. The declines in U.S. imports and consumption are because of reduced demand by electric utilities resulting from switching to natural gas as a fuel source. Most of the imports in

[15] This industry/commodity group includes coal, coke, and chemical products produced from coal such as creosote, coal tars, and other chemical products made distilling high-temperature coal tars that contain aromatic constituents.

[16] Coking coals are consumed in coke plants to produce both blast furnace coke (used to make steel) and foundry coke (used to smelt iron for industrial uses such as pipe production).

[17] Compiled from official statistics of the U.S. Department of Energy.

TABLE EP.3 Coal, coke, and related chemical products (EP003): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	1,172	1,096	1,225	826	1,025	199	24.1
Brazil	444	593	951	924	1,332	409	44.2
Korea	523	451	655	794	1,234	440	55.4
Colombia	2	3	3	3	4	1	26.8
Netherlands	186	398	718	588	839	251	42.7
India	320	284	731	775	904	129	16.6
China	29	22	33	161	714	553	342.9
Saudi Arabia	1	3	20	8	13	6	72.7
Japan	71	57	366	179	536	357	199.4
United Kingdom	200	235	490	458	547	89	19.3
All other	2,230	2,736	5,064	3,363	5,463	2,100	62.4
Total	5,179	5,877	10,255	8,079	12,612	4,533	56.1
EU-27	1,711	2,168	3,836	3,049	4,274	1,225	40.2
OPEC	33	47	93	87	31	-55	-63.9
Latin America	654	778	1,378	1,331	1,809	477	35.9
Asia	1,229	1,073	2,201	2,124	3,872	1,748	82.3
Sub-Saharan Africa	32	37	81	131	127	-3	-2.6
U.S. imports for consumption:							
Canada	572	620	610	527	703	176	33.4
Brazil	61	112	105	58	112	54	92.0
Korea	34	80	41	70	81	11	16.2
Colombia	1,204	1,290	1,666	1,100	998	-102	-9.3
Netherlands	294	452	391	95	126	30	31.9
India	1	10	1	14	14	(a)	3.4
China	415	250	1,250	17	100	84	507.1
Saudi Arabia	817	747	1,095	453	720	267	58.9
Japan	159	159	275	45	137	93	208.0
United Kingdom	77	131	126	53	121	68	128.8
All other	3,296	3,030	3,543	1,692	2,222	530	31.3
Total	6,930	6,880	9,102	4,123	5,335	1,212	29.4
EU-27	854	1,038	998	410	478	68	16.5
OPEC	2,899	2,761	3,632	1,598	2,034	436	27.3
Latin America	1,990	2,116	2,590	1,678	1,756	78	4.7
Asia	689	643	1,720	253	428	175	69.4
Sub-Saharan Africa	24	41	51	55	107	52	94.4

See footnote(s) at end of table.

TABLE EP.3 Coal, coke, and related chemical products (EP003): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	600	477	615	298	322	23	7.8
Brazil	382	481	846	865	1,220	355	41.0
Korea	490	371	614	724	1,153	429	59.2
Colombia	-1,202	-1,287	-1,663	-1,096	-993	103	9.4
Netherlands	-108	-54	327	493	713	221	44.8
India	319	274	730	761	890	129	16.9
China	-386	-228	-1,217	145	614	469	324.2
Saudi Arabia	-816	-744	-1,075	-446	-707	-261	-58.6
Japan	-88	-102	91	135	399	264	196.6
United Kingdom	122	104	365	405	426	20	5.0
All other	-1,066	-295	1,522	1,672	3,242	1,570	93.9
Total	-1,751	-1,003	1,154	3,956	7,278	3,322	84.0
EU-27	857	1,130	2,838	2,639	3,796	1,157	43.9
OPEC	-2,866	-2,714	-3,539	-1,511	-2,003	-492	-32.5
Latin America	-1,336	-1,338	-1,212	-347	53	399	([b])
Asia	540	431	481	1,871	3,443	1,573	84.1
Sub-Saharan Africa	8	-4	29	76	21	-55	-72.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.
[b]Not meaningful for purposes of comparison.

2010 were coals delivered to Gulf Coast and West Coast power plants, because rail transportation costs to those plants from major U.S. coal-producing areas makes domestic coals less price competitive than imports.

Canada and Colombia remained the leading suppliers of low-sulfur coals to the United States in 2010. Saudi Arabia was the leading U.S. supplier of coal chemicals, such as the aromatic petrochemicals and coal tar and creosote. Saudi Arabia has little or no domestic market for these products derived from coal because its market prefers the aromatic petrochemicals derived from crude petroleum.

Petroleum Products[18]

Cynthia B. Foreso
(202) 205-3348
cynthia.foreso@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $6.2 billion (20 percent) to $36.8 billion
U.S. exports: Increased by $19.1 billion (45 percent) to $61.1 billion
U.S. imports: Increased by $25.3 billion (35 percent) to $97.9 billion

The trade deficit in petroleum products rose by 20 percent to $36.8 billion in 2010, primarily as a result of significantly higher prices for crude petroleum, the feedstock for the production of petroleum products (table EP. 4). The average global price of crude petroleum increased 31 percent, from $56.35 per barrel in 2009 to $73.80 per barrel in 2010. The higher prices of feedstock raised the value of imports significantly, outweighing the effects of the increase in the quantity of U.S. petroleum products exports and the small decline in the volume of U.S. imports.

U.S. Exports

U.S. exports of petroleum products increased by $19.1 billion to $61.1 billion in 2010 and from 722.7 million barrels in 2009 to 819.1 million barrels in 2010. The primary markets for U.S. exports are Mexico and Canada, which together account for about 50 percent of the total quantity of exports. The product mix for these exports changes annually and generally fluctuates based on refinery output and maintenance schedules on either side of the border.[19] However, U.S. exports of petroleum products to Mexico, particularly gasoline and distillate and residual fuel oils, rose substantially from 117.5 million barrels in 2009 to 163.0 million barrels in 2010. The steep increase in U.S. exports is attributable to decreased production in Mexico following the early September shutdown of the PEMEX Cadereyta refinery after an explosion and fire.[20]

Other U.S. markets for exports of petroleum products include the Netherlands, the shipping point for U.S. exports of distillate and residual fuel oils to Europe; Singapore, a shipping point for exports to the Pacific Rim; Venezuela, which purchases U.S.-produced petroleum coke for industrial fuel use; and Brazil. In the case of Brazil, U.S. exports more than doubled to 44.5 million barrels in 2010 following Brazil's shutdown of several refineries due to maintenance requirements, and were made up entirely of distillate fuel oils used for industrial heating and other purposes.[21]

[18] This industry/commodity group includes refined petroleum products such as motor fuels, distillate and residual fuel oils, lubricating oils and greases, petroleum coke, and all other products produced from crude petroleum in a refinery.

[19] For example, if a refinery in Canada initiates routine maintenance or product turnaround, U.S. exports of petroleum products could increase to supplement the decrease in Canadian production. U.S. Department of Energy, Energy Information Administration, Short-Term Energy Outlook.

[20] *Oil & Gas Journal*, "Refining Report," March 7, 2011.

[21] *Oil & Gas Journal*, "Refining Report," March 7, 2011.

TABLE EP.4 Petroleum products (EP005): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	3,272	4,105	6,968	3,973	5,709	1,736	43.7
Mexico	5,024	5,725	9,672	6,708	12,037	5,329	79.4
Russia	40	56	80	53	68	15	28.7
Saudi Arabia	45	60	70	61	41	-20	-33.5
Netherlands	1,716	1,799	5,076	4,601	5,018	417	9.1
Venezuela	629	638	631	775	649	-126	-16.2
United Kingdom	466	309	580	755	412	-343	-45.4
Algeria	23	153	3	73	5	-68	-93.5
Brazil	443	491	1,413	1,026	2,778	1,752	170.8
Singapore	1,329	1,812	2,546	2,663	3,768	1,106	41.5
All other	13,419	16,334	31,726	21,361	30,646	9,285	43.5
Total	26,407	31,484	58,765	42,048	61,131	19,083	45.4
EU-27	4,270	4,142	10,850	8,260	9,104	844	10.2
OPEC	1,766	1,643	1,721	2,386	3,233	847	35.5
Latin America	13,738	16,957	28,712	20,589	34,591	14,002	68.0
Asia	3,012	3,631	5,335	4,648	6,586	1,937	41.7
Sub-Saharan Africa	512	627	1,452	990	1,353	364	36.7
U.S. imports for consumption:							
Canada	10,131	11,856	14,420	9,699	14,778	5,078	52.4
Mexico	2,697	3,243	4,677	3,029	3,810	780	25.8
Russia	7,392	8,238	12,838	9,176	12,189	3,014	32.8
Saudi Arabia	9,734	11,424	16,514	6,821	11,109	4,288	62.9
Netherlands	4,434	3,170	5,014	2,613	2,844	232	8.9
Venezuela	10,452	9,271	11,480	5,856	7,040	1,184	20.2
United Kingdom	4,689	5,864	6,387	4,199	5,629	1,431	34.1
Algeria	3,993	4,868	5,563	3,497	5,021	1,524	43.6
Brazil	899	988	1,404	1,150	1,367	217	18.9
Singapore	192	220	50	70	132	62	88.6
All other	34,836	39,438	48,093	26,471	33,968	7,497	28.3
Total	89,448	98,577	126,441	72,581	97,889	25,308	34.9
EU-27	21,354	22,244	27,568	14,049	16,988	2,939	20.9
OPEC	30,738	32,807	45,790	22,937	32,655	9,718	42.4
Latin America	20,988	20,341	25,523	14,670	16,431	1,761	12.0
Asia	5,126	6,445	3,764	2,921	5,705	2,784	95.3
Sub-Saharan Africa	2,041	2,004	3,246	1,938	3,373	1,435	74.0

See footnote(s) at end of table.

TABLE EP.4 Petroleum products (EP005): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-6,859	-7,750	-7,452	-5,726	-9,069	-3,342	-58.4
Mexico	2,327	2,483	4,995	3,679	8,227	4,548	123.6
Russia	-7,351	-8,182	-12,758	-9,123	-12,122	-2,999	-32.9
Saudi Arabia	-9,688	-11,363	-16,445	-6,760	-11,069	-4,308	-63.7
Netherlands	-2,718	-1,372	62	1,988	2,173	185	9.3
Venezuela	-9,823	-8,632	-10,849	-5,082	-6,391	-1,310	-25.8
United Kingdom	-4,223	-5,555	-5,807	-3,443	-5,217	-1,774	-51.5
Algeria	-3,970	-4,715	-5,560	-3,424	-5,017	-1,592	-46.5
Brazil	-456	-496	9	-124	1,411	1,535	[a]
Singapore	1,137	1,593	2,496	2,593	3,636	1,044	40.3
All other	-21,417	-23,104	-16,366	-5,109	-3,322	1,788	35.0
Total	-63,042	-67,094	-67,675	-30,533	-36,758	-6,225	-20.4
EU-27	-17,085	-18,102	-16,718	-5,789	-7,883	-2,095	-36.2
OPEC	-28,972	-31,164	-44,069	-20,551	-29,422	-8,871	-43.2
Latin America	-7,250	-3,384	3,189	5,919	18,160	12,241	206.8
Asia	-2,113	-2,815	1,571	1,728	881	-847	-49.0
Sub-Saharan Africa	-1,529	-1,377	-1,794	-948	-2,020	-1,071	-113.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

U.S. Imports

The value of U.S. petroleum product imports increased by 35 percent in 2010 because of price increases; in contrast, the quantity of U.S. imports fell from 957.0 million barrels in 2009 to 944.3 million barrels in 2010. Canada remained the primary source of U.S. imports of petroleum products, which rose by 5 percent to 204.6 million barrels in 2010. Most of the U.S. imports of refined petroleum products from Canada are distillate and residual fuel oils and gasoline (including motor fuel blending stocks). U.S. imports from most other suppliers decreased in quantity: Mexico (2 percent), Saudi Arabia (50 percent), the Netherlands (23 percent), Venezuela (34 percent), and the United Kingdom (4 percent). These declines are attributed to a rise in U.S. production because U.S. refineries, which generally satisfy over 90 percent of domestic consumption, increased capacity utilization rates in 2010. Declining imports in three product categories—residual fuel oils (used primarily as industrial heating and bunker fuels for heating and power), motor fuels, and jet fuels—accounted for nearly all of the quantity decrease in U.S. imports.

Bibliography: Energy-Related Products

National Petrochemical and Refiners' Association. "Quarterly Statistics," 2010.

Statistics Canada. *International Trade Statistics,* 2010.

U.S. Department of Energy (DOE). Energy Information Administration (EIA). *Monthly Energy Review*, April 2011.

———. *Petroleum Supply Monthly*, 2009 and 2010.

———. *Quarterly Coal Report*, 2009 and 2010.

———. *Short-Term Energy Outlook*, 2011.

Oil & Gas Journal. "Worldwide Report," December 6, 2010.

———. "Refining Report," March 7, 2011.

Forest Products[1]

Alberto Goetzl
(202) 205-3323
alberto.goetzl@usitc.gov

Change from 2009 to 2010:

U.S. trade balance: Shifted from a $1.0 billion deficit to a $0.6 billion surplus
U.S. exports: Increased by $5.9 billion (19 percent) to $36.4 billion
U.S. imports: Increased by $4.2 billion (13 percent) to $35.7 billion

The United States experienced a positive trade balance in forest products in 2010, as an increase in imports was more than offset by a larger increase in exports. Over the past five years, the trade balance in forest products has trended from a deficit of $20.3 billion in 2006 to a surplus of $632 million in 2010 (table FP.1). Growing Chinese demand for raw materials to make building products and paper was the major driver of increased U.S. exports. Meanwhile, increases in U.S. imports mirrored the modest economic recovery and the corresponding rise in demand for pulp and paper products and wood building materials.

U.S. trade shifts in 2010 were primarily driven by its three largest trading partners: Canada, China, and Mexico. They rank as the largest sources of U.S. forest products imports and the largest markets for U.S. exports. Over the past five years, the United States has had a trade deficit with Canada and China and a trade surplus with Mexico. However, China surpassed Mexico as the second largest U.S. export market for forest products in 2010 and is the largest U.S. export market for recovered paper and wood pulp. In 2010, the value of the U.S. trade surplus in forest products with Mexico increased by 19 percent, while the trade deficit with China declined by 19 percent. The forest products trade deficit with Canada increased by 13 percent.

Industry employment has declined because of recession-caused mill closures, technological improvements that have increased productivity, movement of end-use manufacturing offshore, and electronic substitution for paper that has adversely affected U.S. paper consumption.[2] Total employment in the forest products sector has declined from over 1.7 million in 2006 to less than 1.3 million in 2010, a decline of over 26 percent (figure FP. 1).[3]

[1] The products covered in this sector include logs, wood products, wood pulp, and recovered paper, paper products, and printed matter. Following HTS practice, the term "recovered paper" is used in the text in place of "wastepaper."

[2] Industry representative, interview by USITC staff, Washington, DC, March 8, 2011.

[3] BLS, employment for North American Industrial Classifications (NAICS) 113 (forestry and logging), 321 (wood product manufacturing), 322 (paper manufacturing), and 323 (printing and related support activities).

TABLE FP.1 Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	9,846	10,236	10,557	9,142	10,150	1,009	11.0
China	2,572	3,272	3,518	3,720	5,050	1,330	35.8
Mexico	4,258	4,312	4,837	4,162	4,891	728	17.5
Japan	1,964	1,859	2,019	1,712	1,992	281	16.4
Brazil	251	329	409	359	445	86	23.9
Germany	717	902	988	762	846	84	11.0
United Kingdom	1,220	1,300	1,393	1,117	1,214	97	8.7
Korea	683	814	863	765	938	173	22.6
Italy	839	954	945	727	921	193	26.6
Finland	19	23	28	16	29	12	77.1
All other	7,787	9,086	9,804	8,007	9,906	1,899	23.7
Total	30,156	33,088	35,362	30,489	36,381	5,892	19.3
EU-27	4,947	5,539	5,698	4,476	5,139	663	14.8
OPEC	536	669	787	685	883	198	28.8
Latin America	6,645	7,076	7,930	6,647	8,028	1,381	20.8
Asia	7,090	8,228	8,868	8,284	10,652	2,368	28.6
Sub-Saharan Africa	185	206	276	206	267	61	29.5
U.S. imports for consumption:							
Canada	26,717	23,435	20,496	14,781	16,544	1,763	11.9
China	6,630	7,317	7,371	6,281	7,123	842	13.4
Mexico	1,559	1,584	1,457	1,201	1,369	168	13.9
Japan	649	648	642	482	554	72	15.0
Brazil	2,365	2,064	1,928	1,300	1,790	490	37.7
Germany	1,733	1,602	1,493	1,055	1,132	77	7.3
United Kingdom	702	748	700	478	518	39	8.3
Korea	601	559	527	373	493	120	32.2
Italy	455	470	479	307	319	12	4.0
Finland	1,210	1,151	1,025	717	808	91	12.7
All other	7,795	6,982	6,173	4,537	5,099	562	12.4
Total	50,416	46,561	42,291	31,511	35,749	4,237	13.4
EU-27	6,797	6,140	5,671	3,974	4,340	366	9.2
OPEC	77	71	77	68	80	12	18.0
Latin America	5,603	4,980	4,515	3,384	4,068	684	20.2
Asia	10,213	10,983	10,642	8,693	9,982	1,288	14.8
Sub-Saharan Africa	166	183	169	79	87	8	9.8

See footnote(s) at end of table.

TABLE FP.1 Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

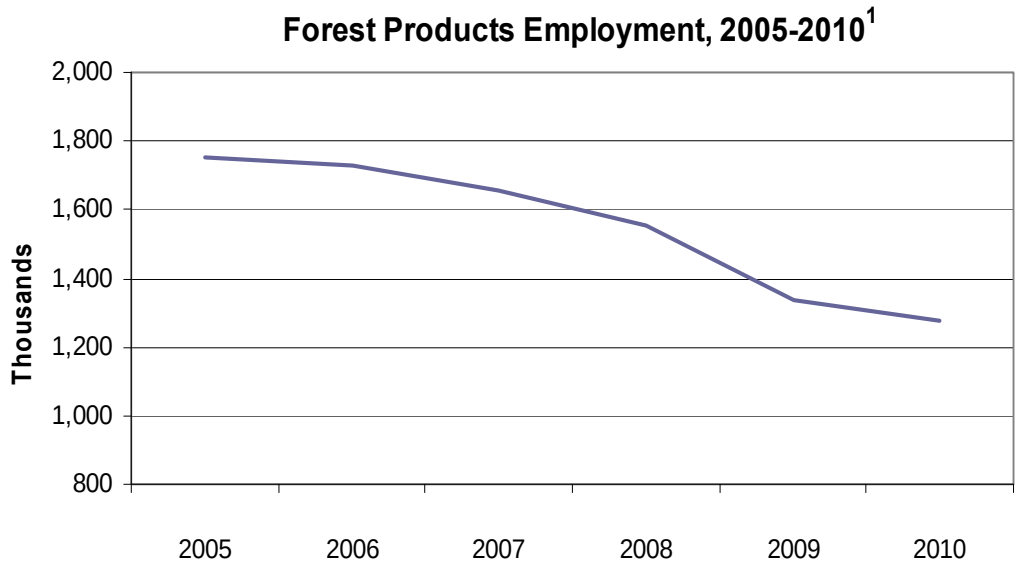
Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-16,871	-13,199	-9,939	-5,639	-6,394	-755	-13.4
China	-4,058	-4,045	-3,853	-2,561	-2,073	488	19.1
Mexico	2,698	2,728	3,380	2,961	3,522	561	18.9
Japan	1,315	1,212	1,377	1,230	1,438	208	16.9
Brazil	-2,113	-1,736	-1,519	-941	-1,345	-404	-43.0
Germany	-1,016	-699	-505	-293	-286	7	2.4
United Kingdom	518	551	693	639	696	57	9.0
Korea	82	255	335	392	445	53	13.4
Italy	384	483	466	421	602	181	43.0
Finland	-1,191	-1,128	-997	-701	-780	-79	-11.2
All other	-8	2,104	3,631	3,470	4,807	1,337	38.5
Total	-20,260	-13,473	-6,930	-1,022	632	1,654	[a]
EU-27	-1,850	-602	27	501	799	298	59.4
OPEC	459	597	710	617	803	185	30.0
Latin America	1,041	2,096	3,415	3,264	3,960	697	21.4
Asia	-3,123	-2,755	-1,774	-410	670	1,080	[a]
Sub-Saharan Africa	19	23	107	127	181	53	41.7

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

Figure FP 1. Forest products employment, 2005–10[1]



[1]NAICS 113, 321, 322, and 323.

Source: Bureau of Labor Statistics http://www.bls.gov/data/#employment.

U.S. Exports

The total value of U.S. forest products exports in 2010 rose by $5.9 billion. The largest absolute trade shift among forest products occurred in exports of wood pulp and recovered paper, which increased by $2.0 billion (30 percent), primarily due to higher demand in China (table FP.2). Chinese paper production continues to expand, as does its demand for paper-making materials such as wood pulp and recovered paper.[4] U.S. exports of wood pulp and recovered paper to China alone increased by $624 million, or 25 percent, from $2.5 billion in 2009 to $3.2 billion in 2010. Approximately 40 percent of the paper and paperboard recovered for reuse in the United States is exported; nearly two-thirds of that amount is exported to China.[5] Industrial paper and paperboards registered the second-largest absolute shift in U.S. exports, increasing by $1.3 billion, or 18 percent. The increase was led by paperboard exports to Mexico and Canada, where it is principally used for making crates for fruit and packing boxes for manufactured goods.[6]

U.S. exports of logs and lumber increased by $1.2 billion (from $3.3 billion to $4.5 billion), with China again sharply increasing its purchases. U.S. exports of all wood products to China, including logs, lumber, panels, and builders' joinery products, exceeded one billion dollars ($1.04 billion) in 2010, compared to $456 million in 2009.[7] While some Chinese demand is being generated from secondary manufacturing for export, such as furniture manufacturing, the main drivers in the Chinese economy are domestic demand for construction materials, furniture, and industrial uses of wood

[4] Deloitte, *Compass 2011,* 1–2.
[5] Calculated using U.S. exports of recovered paper and paperboard (HTS 4707) compiled from official statistics of the U.S. Department of Commerce.
[6] Industry representative, interview by USITC staff, Washington, DC, March 8, 2011.
[7] Compiled from official statistics of the U.S. Department of Commerce (Schedule B, chapter 44).

TABLE FP.2 Forest products: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Wood pulp and wastepaper (FP009)	5,749	6,916	7,809	6,751	8,788	2,037	30.2
Industrial papers and paperboards (FP011)	6,788	7,518	8,281	7,265	8,574	1,309	18.0
Lumber (FP002)	2,275	2,124	1,889	1,593	2,256	663	41.6
Logs and rough wood products (FP001)	1,744	2,061	2,116	1,716	2,236	521	30.4
All other	13,599	14,470	15,267	13,165	14,526	1,361	10.3
Total	30,156	33,088	35,362	30,489	36,381	5,892	19.3
U.S. IMPORTS:							
Increases:							
Wood pulp and wastepaper (FP009)	3,194	3,750	4,023	2,449	3,886	1,436	58.6
Lumber (FP002)	8,335	6,508	4,404	2,639	3,391	752	28.5
Industrial papers and paperboards (FP011)	4,713	4,895	5,252	4,621	5,256	635	13.7
Wood veneer and wood panels (FP004)	6,623	5,169	3,941	2,961	3,413	452	15.3
All other	27,551	26,239	24,671	18,841	19,803	962	5.1
Total	50,416	46,561	42,291	31,511	35,749	4,237	13.4

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

products.[8] U.S. exports to China also benefited from the reduced price competitiveness of logs from the Russian Federation after Russia imposed a 25 export tax on softwood and hardwood logs in 2008.[9] In 2010, the value of U.S. softwood and hardwood lumber shipments to China rose by 185 percent and 71 percent, respectively.[10]

Strong gains in U.S. wood products exports were also recorded for several other countries, including Vietnam and Haiti. Vietnam has become a manufacturing hub for wood furniture destined for North America and Europe and, thus, an important market for U.S. hardwood lumber. In Haiti, construction materials were needed for recovery and rebuilding following that country's earthquake in January 2010.[11]

U.S. Imports

The total value of U.S. forest products imports rose by $4.2 billion in 2010 to $35.7 billion (table FP.1). Canada was the largest source of imports, accounting for 46 percent of the total. China was the second-largest supplier to the United States, followed by Mexico, Japan, and Brazil. Wood pulp and recovered paper represented the largest trade shift in forest products imports, with wood pulp imports from Canada and Brazil accounting for most of the $1.4 billion (59 percent) increase in the product group. Canadian wood pulp imports reflected some volume growth, but also a significant increase in unit value, which rose from $553 per ton in 2009 to $715 per ton in 2010.[12] Unit values of Brazilian pulp imports increased as well (from $416 per ton to $554 per ton), but the United States is also importing much more Brazilian eucalyptus-based wood pulp (used for various paper products including tissue and printing grades), as this product has become increasingly cost-competitive in the global market. U.S. imports of wood pulp from Brazil increased by 82 percent in 2010. [13]

U.S. demand for lumber and wood products is directly correlated to housing construction—both new housing and housing renovations. Housing and related construction declined dramatically in 2007–09, as did imports of wood building materials. While housing remained weak in 2010, housing starts improved slightly, from 554,000 units in 2009 to 585,000 units in 2010—enough to spur an increase in the output of U.S. wood products, demand for imports, and prices.[14] The value of U.S. lumber imports rose 29 percent, while volume increased 7 percent.[15] 2010 also saw an increase in the value of imports of wood veneer and panels, particularly from China (an increase of 22 percent) and Canada (an increase of 15 percent).

---

[8] Industry representative, interview by USITC staff, Washington, DC, March 8, 2011. As U.S. furniture manufacturing has moved offshore, principally to China, Vietnam, and other Asian countries, export opportunities for U.S. wood producers, particularly for the U.S. hardwood industry, have increased, but higher exports have not compensated entirely for the decline in domestic U.S. demand. Consequently, the U.S. hardwood industry has contracted over the past several years.

[9] In November, 2010, the Russian Federation indicated that it would reduce its log export duties as part of the agreement to join the WTO, although no timetable was announced. Before making this announcement, Russia had delayed what would have been an increase to an 80 percent log export tax for softwood and 40 percent for hardwood. See International Forest Industries, "Update on Russian Log Export Tax," March 17, 2011; Timber Trade Federation, "Finland Welcomes EU Agreement on Russian Log Export Issues," November 25, 2010; Eastin, "The Impact of Russian Log Export Tariff," 2009, 3.

[10] Based on official statistics of the U.S. Department of Commerce.

[11] Industry representative, interview by USITC staff, Washington, DC, March 30, 2011.

[12] Based on official statistics of the U.S. Department of Commerce.

[13] GTIS, World Trade Atlas database (accessed March 20, 2011); Fibria, Corporate Presentation, March 2010, 10.

[14] USDOC, Census, "New Privately Owned Housing Units Started" (accessed March 3, 2011).

[15] Based on official statistics of the U.S. Department of Commerce (HTS heading 4407).

Wood Pulp and Wastepaper[1]

Vincent Honnold
(202) 205-3314
vincent.honnold@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Increased by $.6 billion (14 percent) to $4.9 billion
U.S. exports: Increased by $2.0 billion (30 percent) to $8.8 billion
U.S. imports: Increased by $1.4 billion (59 percent) to $3.9 billion

The U.S. trade surplus in wood pulp and wastepaper rose by $600 million (14 percent) in 2010 as an increase in U.S. imports was more than offset by an increase in U.S. exports (table FP.3). Wood pulp and wastepaper are the raw materials used in the production of paper products, and the United States is a major producer and exporter of these raw materials. The global economic recovery during 2010 led to increased worldwide demand for, and production of, paper products such as printing and writing papers and cardboard boxes, which in turn stimulated demand for wood pulp and wastepaper.

In 2010, China was the United States' largest trading partner in wood pulp and wastepaper, followed by Canada, Brazil, and Mexico. During the past five years, the United States has had a trade surplus in wood pulp and wastepaper with China and Mexico and a trade deficit with Canada and Brazil. In 2010, the value of the U.S. trade surplus in wood pulp and wastepaper with China and Mexico rose by 25 percent and 40 percent, respectively; the U.S trade deficit with Canada and Brazil grew even more substantially—by 61 percent and 99 percent, respectively.

U.S. Exports

The value of U.S. exports of wood pulp and wastepaper increased by 30 percent, from $6.8 billion in 2009 to $8.8 billion in 2010 as global production of paper products bounced back from the recessionary levels of 2009. Exports to China, the largest U.S. export market, rose by 25 percent. China has become a major paper producer but is heavily dependent upon imports of wood pulp and wastepaper to supply its paper mills.[2] U.S. exports to all of its other large markets also registered gains on a value basis in 2010.

U.S. exports of wood pulp grew by 30 percent between 2009 and 2010, from $4.1 billion to $5.4 billion.[3] The increase in value was a result of both larger export volumes (up 10 percent) and higher average unit values (up 18 percent). The strong upturn in worldwide market demand for paper products in 2010 stimulated demand for U.S. pulp exports; this demand, coupled with a decline in global pulp exports from Chile in the first half of 2010 due to earthquake damage sustained by Chilean pulp producers, boosted pulp prices

[1] This industry/commodity group includes all the grades of wood pulp such as mechanical wood pulp and chemical wood pulp, and all the grades of wastepaper such as old newspapers, old magazines, and old corrugated containers.
[2] GTIS, Global Trade Atlas database (accessed March 2011).
[3] Compiled from official statistics of the U.S. Department of Commerce.

TABLE FP.3 Wood pulp and wastepaper (FP009): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	1,480	2,060	2,292	2,537	3,161	624	24.6
Canada	364	423	459	282	322	41	14.4
Brazil	95	105	136	126	166	40	32.0
Mexico	581	657	1,011	592	829	236	39.9
Japan	447	402	439	354	475	121	34.1
Italy	448	473	469	327	439	112	34.3
Korea	275	349	356	304	422	118	38.8
India	157	227	205	259	348	89	34.2
Germany	248	293	381	280	320	40	14.3
Netherlands	165	172	160	110	194	84	75.7
All other	1,490	1,755	1,900	1,580	2,112	532	33.7
Total	5,749	6,916	7,809	6,751	8,788	2,037	30.2
EU-27	1,493	1,616	1,736	1,254	1,587	334	26.6
OPEC	89	129	169	150	258	108	72.2
Latin America	853	993	1,412	925	1,346	421	45.5
Asia	2,735	3,508	3,774	3,904	4,993	1,089	27.9
Sub-Saharan Africa	21	20	30	27	35	8	29.8
U.S. imports for consumption:							
China	10	15	20	11	13	2	20.3
Canada	2,391	2,806	2,964	1,836	2,818	982	53.5
Brazil	578	682	858	521	952	431	82.7
Mexico	5	8	10	4	8	4	95.7
Japan	(a)	(a)	(a)	(a)	(a)	(a)	-49.1
Italy	1	1	1	(a)	(a)	(a)	-60.1
Korea	(a)	(a)	(a)	(a)	0	(a)	-100.0
India	1	1	12	1	(a)	-1	-80.6
Germany	4	5	6	3	5	2	55.8
Netherlands	(a)	(a)	(a)	(a)	(a)	(a)	-90.8
All other	204	232	152	73	90	17	23.8
Total	3,194	3,750	4,023	2,449	3,886	1,436	58.6
EU-27	125	128	62	41	47	7	16.8
OPEC	0	0	0	0	0	0	0.0
Latin America	611	727	899	533	974	442	82.9
Asia	27	46	50	18	23	5	30.8
Sub-Saharan Africa	34	29	30	19	15	-4	-20.0

See footnote(s) at end of table.

TABLE FP.3 Wood pulp and wastepaper (FP009): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	1,470	2,045	2,271	2,527	3,149	622	24.6
Canada	-2,027	-2,384	-2,505	-1,554	-2,495	-941	-60.6
Brazil	-483	-577	-722	-395	-786	-390	-98.7
Mexico	576	649	1,001	588	821	232	39.5
Japan	447	402	439	354	475	121	34.1
Italy	447	472	468	326	439	112	34.4
Korea	275	349	356	304	422	118	38.9
India	156	227	194	258	348	90	34.8
Germany	243	288	375	277	315	38	13.8
Netherlands	165	172	160	110	194	84	76.0
All other	1,286	1,523	1,748	1,507	2,022	515	34.2
Total	2,554	3,165	3,787	4,302	4,902	600	14.0
EU-27	1,369	1,488	1,674	1,213	1,540	327	26.9
OPEC	89	129	169	150	258	108	72.2
Latin America	242	267	513	392	372	-21	-5.3
Asia	2,708	3,463	3,723	3,887	4,970	1,083	27.9
Sub-Saharan Africa	-13	-9	([a])	9	20	12	138.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.

sharply.[4] The top five export markets for U.S. pulp in 2010 were China, Mexico, Japan, Italy, and Germany. All of these countries depend on imported pulp to supply their papermaking machines.

U.S. exports of wastepaper, by value, rose 27 percent between 2009 and 2010.[5] The increase in value, however, was solely the result of a 29 percent increase in the average unit value of exports, as the volume of U.S. exports of wastepaper actually declined slightly. The global recovery in paper demand in 2010 put strong upward pressure on the prices of wastepaper.[6] The top export market for U.S. wastepaper in 2010 was China, which accounted for 62 percent of total U.S. exports by quantity. However, a 9 percent decline in the quantity of U.S. exports of wastepaper to China in 2010 more than offset a 14 percent increase in the quantity of U.S. exports of wastepaper to all other countries combined. In response to rising international prices for wastepaper during 2010, at least one large Chinese paper producer sharply increased its purchases of domestically generated wastepaper to reduce its dependence on imported wastepaper.[7]

U.S. Imports

U.S. imports of wood pulp and wastepaper grew by 59 percent, from $2.4 billion in 2009 to $3.9 billion in 2010, as U.S. demand for paper products recovered from the recession-induced level of 2009 (table FP.3). Although the United States is a major exporter of wood pulp and wastepaper, it is also a large pulp importer.[8] U.S. imports of wood pulp increased by 57 percent to $3.8 billion in 2010.[9] The increase in value was a result of both larger import volumes and higher average unit prices. Canada and Brazil were by far the two largest suppliers of wood pulp to the United States: in 2010, imports from these two countries accounted for 97 percent of the total value of U.S. wood pulp imports. Canada and Brazil are major producers and exporters of wood pulp, not only to the United States, but also to many other countries. Other important pulp exporters, such as Chile, Indonesia, and Russia, have developed markets in Asia and Europe rather than in the United States.

[4] Stora Enso, *Financial Report 2010,* 2011, 22; International Paper Company, *2010 Annual Report and Form 10-K,* 2011, 30.

[5] Compiled from official statistics of the U.S. Department of Commerce.

[6] Young, "World Pulp and Paper Market in Recovery Mode," August 5, 2010.

[7] Nine Dragons Paper (Holdings) Limited, *2009/2010 Annual Report*, 2010, 18.

[8] The United States, a large generator of wastepaper, imports small volumes of wastepaper, virtually all of which comes from Canada.

[9] Compiled from official statistics of the U.S. Department of Commerce.

Bibliography: Forest Products

American Forest & Paper Association (AF&PA). *2009 Statistical Summary: Paper, Paperboard, Pulp*. Washington, DC: AF & PA, September 2010.

———. *Paper, Paperboard & Wood Pulp: Monthly Statistical Summary* 89, No. 1. Washington, DC:AF & PA, January 2011.

Deloitte. *Compass 2011: Global Forest, Paper, and Packaging Sector Outlook*, January 2011.

Eastin, Ivan. "The Impact of the Russian Log Export Tariff on the Global Market for Logs and Lumber." Center for International Trade in Forest Products (CINTRAFOR). University of Washington, Seattle, Winter 2009.

Fibria. *Corporate Presentation*, March 2011.

Global Trade Information Service, Inc. (GTIS). World Trade Atlas database (accessed various dates).

International Forest Industries. "Update on Russian Log Export Tax." http://www.internationalforestindustries.com/2011/03/17/update-on-russian-log-export-tax/ (accessed March 17, 2011).

International Paper Company. *2010 Annual Report and Form 10-K Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 2010,* 2011. http://www.internationalpaper.com.

Nine Dragons Paper (Holdings) Limited. *2009/2010 Annual Report*, 2010. http://www.ndpaper.com.

Random Lengths: The Weekly Report on North American Forest Products Markets 67, nos. 1–9 (January 7, 2011, through March 11, 2011).

Stora Enso. *Financial Report 2010*, 2011. http://www.storaenso.com.

Timber Trade Federation. "Finland Welcomes EU Agreement on Russian Log Export Duties." http://www.ttjonline.com/story.asp?storycode=64879 (accessed March 18, 2011).

United Nations Economic Commission for Europe (ECE) and Food and Agriculture Organization of the United Nations (FAO). *Forest Products Annual Review: 2009–2010*. Geneva Timber and Forest Study Paper 25. New York and Geneva. 2010.

U.S. Department of Commerce (USDOC). Census Bureau (Census). New Residential Construction. www.census.gov/const/www/newresconstindex.html (accessed March 3, 2011).

USDOC. Census. Official U.S. trade statistics. http://www.census.gov/foreign-trade/download/dvd/index.html#merch (accessed March 2011).

U.S. Department of Labor (USDOL). U.S. Bureau of Labor Statistics (BLS). Current Employment Statistics. http://www.bls.gov/data/#employment (accessed March 18, 2011).

Wood Markets Monthly. "China: Hungry for Logs/Lumber." Volume 16, no. 2. (March 2011).

Young, Rod. “World Pulp and Paper Market in Recovery Mode.” RISI, August 5, 2010. http://www.woodbiomass.com/news/pulpandpaper/news/RISI-ECONOMISTS-World-pulp-and-paper-market-in-recovery-mode.html

Minerals and Metals

Norman VanToai
(202) 205-3120
norman.vantoai@usitc.gov

Change from 2009 to 2010

U.S. trade deficit: Increased by $13.6 billion (42 percent) to $46.3 billion
U.S. exports: Increased by $25.6 billion (30 percent) to $109.9 billion
U.S. imports: Increased by $39.2 billion (34 percent) to $156.2 billion

In 2010, the increase in U.S. imports of minerals and metals exceeded the rise in exports, resulting in a $13.6 billion (42 percent) expansion of the U.S. trade deficit. This shift reversed the trend of narrowing deficits that occurred during 2006–09[1] (table MM.1). In the United States, increasing consumption of goods such as gemstones and jewelry,[2] growing investment in steel mill products,[3] and rising purchases of durable goods—which are principally made of various minerals and metals[4]—contributed to the higher demand for minerals and metals imports (table MM.2).

Changes in value factors affected shifts in both imports and exports. Growth in the values of imports and exports reflected increasing global prices for minerals and metals, driven by strong demand from the expanding economies of China and India.[5] In addition, the overall depreciation of the U.S. dollar relative to the currencies of major foreign trading partners in 2010[6] made U.S. imports relatively more expensive, while making U.S. exports more price competitive. In particular, U.S. exports benefited from strong and growing demand in Canada, China, and Mexico.

U.S. Exports

The $25.6 billion (30 percent) increase in U.S. exports of minerals and metals was fueled by rising exports of precious metals and non-numismatic coins (up by $7.3 billion, or 35 percent); steel mill products (up by $3.4 billion, or 32 percent); and copper and related articles (up by $2.6 billion, or 55 percent).

In the precious metals and non-numismatic coins sector, the value of U.S. exports increased largely because of rising precious metal prices and growing demand arising

[1] See Council of Economic Advisors, *Economic Report of the Presiden*t, 2011, 29. Also see the "Overall Economic Performance" chapter in this report for more detailed information.

[2] The value of personal consumption expenditures on jewelry increased by $3.9 billion (8 percent) in 2010 compared to 2009. USDOC, BEA. *National Economic Accounts*, table 2.4.5U: "Personal Consumption Expenditures by Type of Products."

[3] The value of fixed investment increased by $37.2 billion (2 percent) in 2010 compared to 2009. USDOC, BEA. *National Economic Accounts,* table 1.1.5: "Gross Domestic Product."

[4] Durable goods consumption in 2010 increased by $63 billion (6 percent) compared to 2009. USDOC, BEA. *National Economic Accounts*, table 1.1.5: "Gross Domestic Product."

[5] During 2008–10, India's gross domestic product (GDP) grew from 6.4 to 9.7 percent annually (adjusted for inflation), while China's GDP increased from 9.2 to 10.3 percent. For more information, see CEA, *Economic Report of the President,* table B-112, February 2011; CEA, *Iron and Steel*, 2011, 78. The index for steel producer price increased by over 21 percent during 2009–10 because of increasing raw material costs, caused largely by strong demand from China and India.

[6] See the "Overall Economic Performance" chapter for more details.

TABLE MM.1 Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	22,687	24,689	27,816	18,907	24,978	6,071	32.1
China	7,736	9,043	9,701	8,703	10,791	2,088	24.0
Mexico	11,635	11,896	13,492	9,603	12,450	2,847	29.6
United Kingdom	6,587	8,379	9,865	9,311	9,975	664	7.1
Switzerland	4,612	6,905	10,950	7,035	10,196	3,161	44.9
India	902	1,981	2,868	2,176	3,159	983	45.2
Germany	2,569	3,292	3,635	2,371	3,710	1,339	56.5
Israel	2,026	2,746	2,516	737	700	-37	-5.0
Japan	3,221	4,094	3,995	2,043	3,026	983	48.1
Korea	1,823	2,723	3,385	2,658	3,176	517	19.5
All other	19,146	24,512	31,529	20,807	27,749	6,942	33.4
Total	82,944	100,260	119,752	84,351	109,910	25,559	30.3
EU-27	16,389	20,757	22,965	17,339	21,349	4,010	23.1
OPEC	1,903	2,521	3,275	2,222	2,172	-50	-2.3
Latin America	14,716	15,728	18,807	13,399	17,199	3,800	28.4
Asia	18,380	24,393	28,714	21,194	28,616	7,422	35.0
Sub-Saharan Africa	655	610	861	789	1,136	347	44.0
U.S. imports for consumption:							
Canada	32,155	34,562	36,695	22,533	31,382	8,849	39.3
China	23,462	25,749	28,975	19,146	22,208	3,062	16.0
Mexico	13,266	13,877	14,715	12,142	16,236	4,094	33.7
United Kingdom	3,748	4,158	4,041	2,139	2,921	782	36.6
Switzerland	1,011	947	1,168	1,102	1,259	157	14.2
India	5,816	6,424	7,534	5,136	7,714	2,578	50.2
Germany	6,611	7,175	7,443	4,496	6,221	1,725	38.4
Israel	9,069	10,065	9,995	5,966	8,242	2,276	38.2
Japan	5,871	5,780	5,996	4,468	5,752	1,284	28.7
Korea	3,611	3,328	4,174	2,387	3,466	1,079	45.2
All other	64,890	62,141	64,258	37,512	50,797	13,285	35.4
Total	169,510	174,207	184,994	117,027	156,198	39,172	33.5
EU-27	27,836	29,375	29,376	18,305	23,514	5,210	28.5
OPEC	1,681	1,335	1,682	707	1,261	554	78.4
Latin America	30,991	29,985	31,453	22,469	29,944	7,475	33.3
Asia	47,885	49,892	55,456	36,410	46,351	9,941	27.3
Sub-Saharan Africa	5,961	7,391	7,274	3,813	5,702	1,889	49.5

See footnote(s) at end of table.

TABLE MM.1 Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-9,468	-9,873	-8,879	-3,625	-6,404	-2,779	76.6
China	-15,726	-16,707	-19,274	-10,443	-11,416	-973	9.3
Mexico	-1,631	-1,981	-1,223	-2,540	-3,786	-1,246	49.1
United Kingdom	2,839	4,221	5,824	7,172	7,054	-118	-1.6
Switzerland	3,601	5,959	9,783	5,933	8,937	3,004	50.6
India	-4,915	-4,443	-4,666	-2,959	-4,555	-1,596	53.9
Germany	-4,041	-3,882	-3,808	-2,125	-2,511	-386	18.2
Israel	-7,043	-7,319	-7,478	-5,229	-7,542	-2,313	44.2
Japan	-2,650	-1,687	-2,001	-2,425	-2,726	-301	12.4
Korea	-1,788	-604	-789	272	-290	-562	[a]
All other	-45,744	-37,630	-32,728	-16,705	-23,048	-6,343	38.0
Total	-86,566	-73,946	-65,239	-32,676	-46,287	-13,615	41.7
EU-27	-11,446	-8,618	-6,410	-966	-2,165	-1,199	124.1
OPEC	222	1,186	1,594	1,515	911	-604	-39.9
Latin America	-16,274	-14,256	-12,646	-9,070	-12,745	-3,675	40.5
Asia	-29,506	-25,499	-26,743	-15,216	-17,735	-2,519	16.6
Sub-Saharan Africa	-5,306	-6,781	-6,412	-3,024	-4,565	-1,541	51.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

TABLE MM.2 Minerals and metals: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Precious metals and non-numismatic coins (MM020)	13,360	19,289	26,534	20,699	28,033	7,334	35.4
Steel mill products (MM025)	10,479	12,535	16,737	10,648	14,086	3,438	32.3
Copper and related articles (MM036)	6,052	6,684	6,691	4,636	7,189	2,553	55.1
Natural and synthetic gemstones (MM019)	4,087	5,572	6,248	2,447	3,303	856	35.0
All other	48,965	56,179	63,543	45,921	57,300	11,379	24.8
Total	82,943	100,259	119,753	84,351	109,911	25,559	30.3
U.S. IMPORTS:							
Increases:							
Precious metals and non-numismatic coins (MM020)	14,232	16,022	18,750	16,287	23,701	7,414	45.5
Natural and synthetic gemstones (MM019)	18,452	20,239	21,072	13,608	19,730	6,122	45.0
Steel mill products (MM025)	31,500	29,204	36,870	16,995	22,928	5,933	34.9
Copper and related articles (MM036)	13,803	12,577	11,153	6,125	8,609	2,484	40.6
All other	91,524	96,165	97,149	64,032	81,231	17,221	26.9
Total	169,511	174,205	184,994	117,027	156,199	39,174	33.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

from the global economic recovery.[7] U.S. exports of gold bullion to Switzerland, Hong Kong, and India, which are the leading global processing centers of jewelry products, accounted for most of the increase. Switzerland was the top export destination, and exports to Switzerland of precious metal waste and scrap showed the greatest increase within this sector during 2010.

U.S. exports of steel mill products increased by $3.4 billion (32 percent) to $14.1 billion in 2010.[8] Key export categories in this group were plates, sheets, and strips of carbon and alloy steels (for automotive production and the construction industry) and steel pipe and tubes (for oil and gas drilling or transportation applications). NAFTA trading partners Canada and Mexico maintained their long-held positions as the leading markets for U.S. steel mill products, with most exports going to Canada because of the sharp recovery of the Canadian automobile industry and oil and gas drilling activities in 2010.[9] In 2010, U.S. exports of copper and related articles increased by $2.6 billion (55 percent) to $7.2 billion. Most of this growth was in exports of copper waste and scrap (61 percent) with China as the leading export destination because of the economic recovery and increased demand for manufactured goods containing copper.[10] Increased U.S. trade values in this group reflected both rising copper prices and greater quantities demanded from major U.S. trading partners in 2010.

U.S. Imports

U.S. imports of minerals and metals were principally driven by increased domestic consumption of precious metals and non-numismatic coins, which rose by $7.4 billion (46 percent) to $23.7 billion in 2010. Gold was the primary product imported, mostly in unrefined and unwrought forms for use in industrial applications. The increase in import values was caused by rising prices as well as higher domestic demand as the economy improved.

U.S. imports of natural and synthetic gemstones increased by $6.1 billion (45 percent) to $19.7 billion in 2010, largely because of an increase in imports of diamonds from Israel (the leading U.S. supplier), India, and Belgium. These countries are the world's leading gemstone cutting and trading centers.[11] The higher import values reflected a rebound of the global diamond industry in 2010, which exerted upward pressure on prices,[12] as well as rising U.S. consumption of jewelry.

Imports of steel mill products rose by $5.9 billion (35 percent) to $22.9 billion in 2010. Almost one-quarter of these imports, which were primarily semifinished products used to produce final products in the United States, came from Canada.[13] U.S. imports of copper and related articles increased by $2.5 billion (41 percent) to $8.6 billion in 2010. Higher import values can largely be attributed to global price increases, owing to high demand for the products in China and the U.S. economic recovery. Another key factor

[7] See the "Precious Metals and Non-numismatic Coins" section in this chapter for more information.

[8] See the "Steel Mill Products" section in this chapter for more information.

[9] The Baker Hughes rig counts monthly average (which is the monthly number of active rigs of oil and gas exploration activities) in Canada increased from 221 in 2009 to 351 in 2010 (59 percent).

[10] Since copper is used extensively in all industries, an increase in economic growth commonly translates into higher demand for copper. See the "Copper and Related Articles" section in this chapter for more information.

[11] See the "Natural and Synthetic Gemstones" section in this chapter for more information.

[12] Silver Institute, "Silver Jewelry Sales Hit New Records," March 2, 2011.

[13] See the discussion on "Steel Mill Products" section in this chapter for more information.

contributing to growth in the value of U.S. imports was the reduction in U.S. copper mine and refinery production, resulting from mine cutbacks and the lower grade of ore extracted.[14]

[14] See the discussion on "Copper and Related Articles" section in this chapter for more information.

Natural and synthetic gemstones[1]

Gail Burns
(202) 205-2501
gail.burns@usitc.gov

Change from 2009 to 2010

U.S. trade deficit: Increased by $5.3 billion (47 percent) to $16.4 billion
U.S. exports: Increased by $0.9 billion (35 percent) to $3.3 billion
U.S. imports: Increased by $6.1 billion (45 percent) to $19.7 billion

The U.S. trade deficit in natural and synthetic gemstones increased by $5.3 billion (47 percent) to $16.4 billion in 2010, as the increase in imports exceeded the growth in exports more than sixfold (table MM.3). The overall increase in trade in this product category can be attributed primarily to the rebound of the global and U.S. economies in 2010.[2] The diamond markets recovered in 2010, with significant increases in consumer demand in India and Far East markets—led by China—as well as a robust U.S. holiday season.

Moreover, currency uncertainty, coupled with inflationary expectations and surging gold prices, also encouraged investment demand for diamonds.[3] In 2010, U.S. polished diamond prices and trading volumes rebounded to early 2008 pre-recession levels: global prices of certified polished diamond increased 10 percent: half carats were up 4 percent, one carat up 12 percent, and three carats up 25 percent. Further, the prices of large, very expensive, high-quality diamonds increased 57 percent.[4]

In terms of value, diamonds accounted for over 90 percent of total U.S. imports and 87 percent of all U.S. exports of natural and synthetic gemstones in 2010.[5] The United States is the world's largest market for diamonds, but it has no natural deposits; imports supply virtually all of its demand.[6] According to De Beers, which still supplies an estimated 40 percent of the global rough diamond market, the global diamond jewelry [7] market grew 8 percent in 2010.[8] The U.S. market, which accounted for 38 percent of global diamond jewelry demand, grew by 7 percent in 2010.[9]

[1] This industry subgroup includes natural or synthetic gemstones such as diamonds, rubies, sapphires, jade or emeralds.
[2] IMF, *World Economic Outlook: Recovery, Risk, and Rebalancing*, October 2010.
[3] *Business Wire,* "Polished Diamond Prices Up 10 Percent in 2010," January 19, 2011.
[4] *Business Wire,* "Polished Diamond Prices Up 10 Percent in 2010," January 19, 2011.
[5] According to U.S. Department of Commerce data, diamonds were the dominant import category in this sector in 2010, registering imports valued at $18.1 billion, a 45 percent increase over 2009; exports were valued at $2.9 billion, a 33 percent increase over 2009.
[6] The United States does not have major diamond-mining operations, but it is an internationally recognized diamond cutting and trading center. The United States does produce synthetic diamonds, though they only meet a small share of overall U.S. demand for diamonds.
[7] The diamond jewelry industry is one of the leading consumers of polished/cut diamonds.
[8] Reading, *News Investing Company*, "A Play on the Diamond Market," February 22, 2011.
[9] Reading, *News Investing Company*, "A Play on the Diamond Market," February 22, 2011.

TABLE MM.3 Natural and synthetic gemstones (MM019): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Israel	1,706	2,397	2,135	484	366	-118	-24.4
India	241	510	1,239	502	855	353	70.4
Belgium	727	894	687	150	398	248	165.1
South Africa	16	14	7	3	9	6	230.8
Hong Kong	460	578	882	481	609	128	26.6
Switzerland	136	162	281	157	201	44	28.3
Canada	103	92	128	78	95	17	22.4
Thailand	53	74	89	71	39	-32	-44.8
China	12	12	19	31	36	5	16.7
Japan	85	79	39	18	30	12	64.1
All other	548	761	743	472	664	192	40.7
Total	4,087	5,572	6,248	2,447	3,303	856	35.0
EU-27	902	1,173	970	344	670	326	94.8
OPEC	63	111	120	50	81	31	63.1
Latin America	228	240	217	155	189	34	22.1
Asia	889	1,300	2,331	1,144	1,644	501	43.8
Sub-Saharan Africa	20	34	11	7	11	4	56.7
U.S. imports for consumption:							
Israel	8,618	9,533	9,423	5,581	7,761	2,180	39.1
India	3,385	3,824	4,022	3,178	5,327	2,149	67.6
Belgium	2,818	3,023	3,261	2,270	3,004	734	32.3
South Africa	951	1,085	1,067	660	1,140	480	72.7
Hong Kong	317	205	470	177	201	24	13.6
Switzerland	275	298	451	276	437	161	58.2
Canada	127	121	124	112	138	26	23.4
Thailand	240	283	260	131	182	51	38.9
China	209	244	235	126	154	28	22.3
Japan	101	105	110	50	125	74	147.6
All other	1,411	1,519	1,647	1,046	1,261	215	20.6
Total	18,452	20,239	21,072	13,608	19,730	6,123	45.0
EU-27	3,016	3,242	3,497	2,413	3,194	781	32.4
OPEC	187	152	196	147	197	50	33.8
Latin America	219	247	248	187	207	20	10.6
Asia	4,378	4,773	5,209	3,753	6,119	2,366	63.0
Sub-Saharan Africa	1,354	1,528	1,567	929	1,559	630	67.9

See footnote(s) at end of table.

TABLE MM.3 Natural and synthetic gemstones (MM019): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Israel	-6,913	-7,137	-7,289	-5,098	-7,396	-2,298	-45.1
India	-3,144	-3,313	-2,783	-2,676	-4,472	-1,796	-67.1
Belgium	-2,091	-2,129	-2,574	-2,120	-2,606	-486	-22.9
South Africa	-936	-1,071	-1,061	-658	-1,132	-474	-72.0
Hong Kong	143	373	412	304	408	104	34.1
Switzerland	-139	-136	-170	-119	-235	-116	-97.7
Canada	-23	-29	4	-34	-43	-9	-25.6
Thailand	-187	-209	-172	-60	-142	-83	-139.0
China	-197	-232	-216	-95	-118	-23	-24.2
Japan	-16	-26	-70	-32	-95	-63	-195.7
All other	-863	-758	-904	-574	-597	-23	-4.0
Total	-14,366	-14,667	-14,823	-11,161	-16,427	-5,267	-47.2
EU-27	-2,115	-2,069	-2,526	-2,069	-2,524	-455	-22.0
OPEC	-124	-41	-76	-97	-116	-18	-18.8
Latin America	9	-6	-32	-32	-17	14	45.4
Asia	-3,488	-3,473	-2,878	-2,609	-4,475	-1,865	-71.5
Sub-Saharan Africa	-1,333	-1,493	-1,556	-922	-1,548	-626	-68.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

U.S. Exports

In 2010, U.S. exports of natural and synthetic gemstones increased by 35 percent over such exports in 2009,[10] reflecting a reviving global diamond market as prices and demand increased. The United States exports principally finished/cut diamonds that were previously imported as rough/uncut diamonds. In 2010, U.S. imports of rough diamonds totaled $524.0 billion, an 81 percent increase over the 2009 level. This surge largely reflected the substantial increase in global demand for U.S. exports of finished diamonds combined with the strong market demand in the United States for finished diamonds.[11]

The major markets in 2010 for U.S. exports of natural and synthetic gemstones were India, Hong Kong, Belgium, and Israel, all major diamond-trading centers. Hong Kong, along with the rest of China,[12] and India are also large and growing centers for jewelry manufacturing; in fact, India's is growing at an estimated 25 percent annually.[13] Together these four markets accounted for $2.2 billion (67 percent) of all U.S. exports of natural and synthetic gemstones in 2010. U.S. exports to India and Hong Kong have grown in market share at the expense of older markets, such as Israel. Gains were noted in all major markets except Israel. U.S. exports to India increased by 70 percent to $855 million; exports to Hong Kong and Belgium increased by 27 and by 165 percent to $609 million and $398 million, respectively. Exports to Israel, however, fell by 24 percent ($118 million) to $366 million. The vast majority of U.S. exports of polished diamonds to Israel are returns of diamonds consigned to retailers but not sold. In recent years, U.S. retailers have been keeping less stock as Israeli banks became stricter about consignment deals.[14] As a result, U.S. exports of diamonds to Israel have declined steadily since 2007.

U.S. Imports

U.S. imports of natural and synthetic gemstones totaled $19.7 billion in 2010, an increase of $6.1 billion (45 percent) over 2009 levels. Diamonds were the largest import item in this category from all suppliers. The substantial increase in the value of U.S. imports of natural and synthetic gemstones is attributable to the rebound in the domestic diamond jewelry market in 2010 as prices and consumer demand increased.[15] Market conditions for rough diamonds improved considerably in 2010, as the overall supply of rough diamonds was inadequate to meet the improved global demand, partly due to increased diamond jewelry manufacturing activity and partly due to speculation. As a result, prices of rough diamonds substantially increased in 2010,[16] in turn raising prices for cut and polished diamonds; the rising prices for both contributed to the increased value of imports. U.S. imports of rough diamonds increased by $254.9 (81.2 percent) to $524.0 billion in 2010,[17] due in large part to increased manufacturing activity in the U.S. cutting and polishing industry and the U.S jewelry industry.[18]

---

[10] But, U.S. exports were still well below the 2008 level of $6.2 billion (table MM.3).

[11] U.S. Department of Commerce data for nonindustrial diamonds, unworked or simply sawn, cleaved, or bruted (HTS 7102.31.0000).

[12] *Economic Times*, "China Now World's Second Largest Diamond Market," January 24, 2010.

[13] *Business Wire,* "Polished Diamond Prices Up 10 Percent in 2010," January 10, 2011.

[14] Industry representative, interview by USITC, April 4, 2011.

[15] Montgomery, *Diamond Investing News,* "Signs Diamond Market Is Headed Towards Recovery," May 31, 2010.

[16] *Journal of the Gem & Jewellery Industry,* "Jump in Diavik's Rough Diamonds Output," November–December 2010, 18.

[17] Compiled from official statistics of the U.S. Department of Commerce data for nonindustrial diamonds, unworked or simply sawn, cleaved, or bruted (HTS 7102.31.0000).

[18] *Jewelry News Network*, "Report: 2010 Jewelry Sales Up 7.7 %," February 11, 2011.

Israel, India, and Belgium remained the principal suppliers of U.S. imports of natural and synthetic gemstones in 2010. All three countries are major diamond cutting and trading centers. U.S. imports from Israel, the leading supplier, rose by $2.2 billion (39 percent) to $7.8 billion; imports from India, the second-largest supplier, rose by $2.1 billion (68 percent) to $5.3 billion. India specializes in lower-priced and smaller diamonds and is increasingly claiming U.S. import shares at the expense of traditional suppliers such as Israel and Belgium.[19]

[19] Industry representative, interview by USITC staff, April 4, 2011.

Precious Metals and Non-numismatic Coins[1]

Karl S. Tsuji
(202) 205-3434
karl.tsuji@usitc.gov

Change from 2009 to 2010:

U.S. trade surplus: Decreased by $0.8 billion (2 percent) to $4.3 billion
U.S. exports: Increased by $7.3 billion (35 percent) to $28.0 billion
U.S. imports: Increased by $7.4 billion (46 percent) to $23.7 billion

In 2010, the U.S. trade surplus in precious metals and non-numismatic coins narrowed for the second year in a row, falling by $0.8 billion (2 percent) to reach $4.3 billion (table MM.4). Higher values for both U.S. exports and U.S. imports of most precious metals and non-numismatic coins in 2010 reflected both higher prices and, in many cases, increased quantities traded.

Annual average prices continued to rise in 2010, climbing by double-digit percentages for most precious metals and more than doubling for ruthenium (table MM.5).[2] In addition to the global economic recovery,[3] factors driving increased gold prices were more robust consumer demand for precious jewelry, net purchases by central banks, and continued but slightly lower demand by investors.[4] The revival of downstream consuming sectors and investment interest[5] also likely accounted for the price increases for silver[6] and platinum-group metals (PGMs).[7]

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

[2] Statistics of the London Bullion Market Association and Platts Metals Week.

[3] For further details, see IMF, *World Economic Outlook: Recovery, Risk, and Rebalancing*, October 2010.

[4] WGC, "Gold Price in 2010," January 26, 2011; WGC, "Global Gold Demand in 2010," February 17, 2011.

[5] Investment interest returned to precious metals after the 2007 subprime mortgage crisis for portfolio diversification as a hedge against potential inflation and currency depreciation. Also cited as contributing to interest in holding precious metals in physical forms are rising Chinese and Indian urbanization and the introduction of physical-asset backed precious-metal exchange-traded funds. Riley, "Interest in Metals Set to Skyrocket," January 14, 2010.

[6] Higher silver prices benefited from robust (albeit partial) recovery of industrial use, record investment demand for bullion coins, slightly higher consumption of jewelry that countered lower consumption in photography and silverware, and moderate growth of both mine output and scrap recovery. Silver Institute, "GFMS' Interim Silver Market Review," November 17, 2010; Silver Institute, "Investors Remain Bullish: GFMS Report," fourth quarter 2010, 1.

[7] Prices for platinum, palladium, and rhodium fluctuated upward because of robust demand for catalytic applications. Price fluctuations for iridium and ruthenium were driven by industrial demand (particularly by the electronics sector for ruthenium), stockpile levels, and investor interest during 2010. Johnson Matthey, *Platinum 2010 Interim Review*, November 16, 2010, 3, 18, and 33; Loferski, "Platinum-group Metals," various months, 2010, 1.

TABLE MM.4 Precious metals and non-numismatic coins (MM020): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Switzerland	4,205	6,467	10,356	6,613	9,725	3,112	47.1
Canada	1,563	2,016	3,009	2,294	2,696	402	17.5
United Kingdom	4,403	5,779	7,168	7,642	7,929	287	3.8
Mexico	237	244	212	153	262	109	76.2
South Africa	2	42	186	21	408	387	1,842.9
Germany	685	1,081	1,222	639	1,227	588	92.1
Colombia	(a)	1	1	1	1	(a)	0.0
India	10	546	567	667	1,216	549	82.3
Hong Kong	97	132	245	117	849	732	625.6
Australia	178	100	443	971	691	-280	-28.8
All other	1,981	2,881	3,125	1,581	3,028	1,447	91.5
Total	13,360	19,289	26,534	20,699	28,028	7,334	35.4
EU-27	5,581	7,395	9,095	8,983	10,304	1,321	14.7
OPEC	259	504	591	30	163	133	443.3
Latin America	350	334	302	197	333	136	69.2
Asia-Saharan Africa	2	42	190	31	408	377	1,216.1
U.S. imports for consumption:							
Switzerland	233	122	165	422	351	-71	-16.8
Canada	2,660	2,922	4,220	3,740	7,096	3,356	89.7
United Kingdom	1,284	1,638	1,581	687	842	155	22.6
Mexico	2,023	1,993	2,793	4,289	6,202	1,913	44.6
South Africa	2,711	3,801	3,038	1,478	2,213	735	49.7
Germany	575	851	947	379	741	362	95.5
Colombia	328	365	571	1,083	1,500	417	38.5
India	13	5	13	26	27	1	2.8
Hong Kong	9	18	39	8	28	21	250.0
Australia	85	178	110	148	182	34	23.1
All other	4,311	4,130	5,273	4,027	4,519	491	12.2
Total	14,232	16,022	18,750	16,287	23,701	7,413	45.5
EU-27	2,390	3,161	3,524	1,893	2,386	494	26.1
OPEC	28	110	79	33	87	55	163.6
Latin America	5,052	4,305	5,705	7,748	10,187	2,438	31.5
Asia	298	518	558	368	574	206	55.9
Sub-Saharan Africa	2,715	3,807	3,049	1,486	2,240	754	50.8

See footnote(s) at end of table.

TABLE MM.4 Precious metals and non-numismatic coins (MM020): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Switzerland	3,971	6,345	10,191	6,191	9,374	3,183	51.4
Canada	-1,096	-906	-1,211	-1,446	-4,400	-2,954	204.2
United Kingdom	3,120	4,141	5,587	6,955	7,087	131	1.9
Mexico	-1,787	-1,748	-2,581	-4,136	-5,940	-1,804	43.6
South Africa	-2,710	-3,759	-2,852	-1,457	-1,805	-348	23.9
Germany	110	230	275	260	486	227	86.9
Colombia	-327	-364	-570	-1,082	-1,499	-416	38.5
India	-3	541	554	641	1,189	548	85.6
Hong Kong	87	113	206	109	821	712	653.2
Australia	93	-77	333	823	509	-314	-38.1
All other	-2,330	-1,249	-2,148	-2,446	-1,491	956	-39.1
Total	-870	3,267	7,784	4,412	4,332	-81	-1.8
EU-27	3,191	4,234	5,571	7,090	7,918	828	11.7
OPEC	231	393	512	-3	75	78	[b]
Latin America	-4,702	-3,972	-5,403	-7,551	-9,853	-2,302	-30.5
Asia	918	1,892	1,940	1,193	3,030	1,837	153.9
Sub-Saharan Africa	-2,713	-3,764	-2,859	-1,455	-1,832	-377	-25.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a] Less than $500,000.
[b] Not meaningful for purposes of comparison.

U.S. Exports

The greatest absolute shift in U.S. exports of precious metals and non-numismatic coins during 2009–10, by product grouping, occurred with respect to waste, scrap, and ash, which rose by $3.0 billion (44 percent) to $9.6 billion (table MM.5). The United States exported a higher overall quantity of waste, scrap, and ash (up by 2.1 million metric tons or 52 percent), but shifted away from such products containing gold (down by 68 metric tons) and toward such products containing higher unit-value PGMs (exports of which collectively increased by 1,838 metric tons).[8] Switzerland was both the leading destination and accounted for the largest increase (up by $1.8 billion or 57 percent to $5.1 billion) for U.S. shipments of all precious-metal waste, scrap, and ash in 2010. Switzerland is not only a major global center for refining, fabricating, and trading all types of precious metals but also for processing waste, scrap, and ash that contains precious metals.[9]

Table MM.5: Precious metals and non-numismatic coins (MM020): U.S. exports of domestic merchandise, by precious-metals product groupings, 2006–10

Item	2006	2007	2008	2009	2010	Change 2010 from 2009	
						Absolute	Percent
	Million dollars						
Waste, scrap, and ash	3,065	4,933	7,668	6,668	9,627	2,959	44
Gold	7,429	11,773	16,517	12,060	14,921	2,862	24
Total	10,494	16,707	24,186	18,728	24,549	7,334	30

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

Of the $2.9 billion (24 percent) increase in U.S. gold exports to $14.9 billion, most was in unwrought forms of unrefined doré,[10] refined bullion bars,[11] and refined grains and nuggets.[12] More specifically, a 13,834 kilogram (5 percent) rise in U.S. exports of nonmonetary gold bullion, combined with the higher gold prices, resulted in a $2.7 billion (30 percent) increase in the value of such U.S. exports to $11.4 billion.

Dramatic growth in U.S. shipments of gold bullion to Switzerland (up by $968 million or 583 percent), Hong Kong (up by $728 million or 3,740 percent), and India (up by $543 million or 86 percent) in 2010 more than exceeded the relatively modest combined declines to the top U.S. export destinations of the United Kingdom (down by $259 million or 4 percent) and Australia (down by $327 million or 36 percent). Like

[8] The relevant HTS subheadings are 7119.12.9200 (waste and scrap of platinum) and 7119.12.9900 (other precious-metal waste and scrap, nesoi), with the latter also containing waste and scrap of silver.

[9] Although Swiss refineries and depository banks and investment firms transact mostly gold, they also process and store all other precious metals. Newman, "The Mineral Industry of Switzerland," December 2010, 42.1; individual company Web sites.

[10] Gold doré is produced from the smelting of gold-bearing concentrates, and contains small quantities of silver and base metals, which are removed during the subsequent refining stage to produce refined gold in unwrought forms.

[11] Molten refined gold is cast into bullion bars of various standardized weights, from 1 gram to 400 troy ounces. WGC, "Investment, Coins and Small Bars," n.d. (accessed April 14, 2011).

[12] Alternatively, molten refined gold can be poured through a steel sieve mounted above a cooling water bath to produce spheroidal (smaller diameter) grains and (larger diameter) nuggets. Foundries and fabricators rely on grains and nuggets of gold and other metals for precise weighing of gold alloys for precious jewelry, goldsmith's wares, and other items.

Switzerland, both Hong Kong and India are regional centers for gold trading and fabricating, including precious-jewelry manufacturing.[13] The Chinese market (which is served by both Chinese and Hong Kong jewelry fabricators) is considered the world's fastest growing, while the Indian market is the world's largest for gold jewelry.[14] Despite rising gold prices, Asian consumers led the recovery of gold jewelry consumption in 2010 (quantities up by 17 percent compared to the previous year), through continued robust Chinese demand and revived Indian demand. Together, these two markets accounted for over one-half (an estimated 51 percent) of worldwide jewelry and investment demand for gold.[15]

U.S. Imports

Gold accounted for the greatest shift in the value of U.S. imports of precious metals and non-numismatic coins during 2009–10. U.S. gold imports rose by $3.7 billion (45 percent) to $11.8 billion (table MM.6), with the predominant types being unrefined and refined unwrought forms. More specifically, in 2010, the United States imported 72,330 kilograms (57 percent) more of nonmonetary gold bullion than in 2009, which, given higher gold prices, translated to a $3.4 billion (96 percent) import increase to $7.0 billion.

Table MM.6: Precious metals and non-numismatic coins (MM020): U.S. imports for consumption, by precious-metals product groupings, 2006–10

Item	2006	2007	2008	2009	2010	Change 2010 from 2009	
						Absolute	Percent
	---------- *Million dollars* ----------						
Gold	5,171	4,134	5,681	8,118	11,789	3,671	45
Silver	1,900	2,375	2,992	2,148	4,388	2,240	104
Platinum-group metals	5,838	7,742	7,115	2,982	4,142	1,161	39
Total	12,910	14,252	15,789	13,247	20,319	7072	52

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

Note: Calculations based on unrounded data.

Activity in the different U.S. market subsectors presented a mixed picture. The quantities of gold consumed for precious jewelry, investment items, and industrial applications fluctuated downward through successive quarters in 2010.[16] Despite the lower net domestic consumption of gold bullion, higher import quantities offset the increased quantities shipped out of the U.S. market (as imports exceeded exports by 58,496 kilograms) during that year.[17] Imports from the two largest U.S. sources of gold bullion

[13] Precious jewelry manufacturing is the largest direct end-use application for gold. Jewelry fabricators purchase refined gold in the forms of bullion and grains and nuggets directly from precious-metal refineries and traders.

[14] WGC, "Jewelry, China," 2011; and WGC, "Jewelry, India, 2011.

[15] WGC, "Investment, Demand and Supply Statistics," 2011; WGC, "Global Gold Demand in 2010," February 17, 2011. For further details, see the overview section of the "Miscellaneous Manufactures" chapter and the "Natural and Synthetic Gemstones" section in this chapter.

[16] WGC, "Gold Demand Trends," various quarters 2011.

[17] Further details were not readily available about the specific nature or extent of gold transactions within various U.S. end-use sectors.

also registered significant increases—Canada (up by $2.1 billion (103 percent) to $4.2 billion) and Mexico (up by $760 million (137 percent) to $1.3 billion).[18]

Silver imports by the United States—principally as unrefined and refined unwrought forms—rose by $2.2 billion (104 percent) to $4.4 billion. The 1,827 kilogram (65 percent) rise in U.S. imports of silver bullion, combined with higher silver prices, resulted in an increase of $1.6 billion (120 percent) in imports to $2.9 billion. Mexico, as the world's largest producer of silver,[19] was the second-largest U.S. source of silver bullion, from which U.S. imports rose by $537 million (69.3 percent) to $1.3 billion. U.S. imports of silver bullion from Canada, also a major producer of mined silver,[20] rose by $650 million (186 percent) $998 million, and represented the largest increase in U.S. imports of silver by value in 2010. One of the key consuming sectors for refined silver in the United States is the precious jewelry industry. U.S. silver jewelry sales reportedly hit record levels in mid-to lower-end gold in 2010,[21] in part because the elevated price of gold prompted U.S. consumers of mid-to lower-end gold jewelry to switch to more affordable sterling silver jewelry.[22]

The value of U.S. imports of PGMs rose by $1.2 billion (39 percent) to $4.1 billion.[23] Imports predominantly consisted of unwrought forms (grains and nuggets, and bullion bars) and powder, which together grew by $1.1 billion (40 percent) to $3.8 billion. Despite high import reliance—domestic mine resources are insufficient to meet its consumption needs[24]—the United States imported a lower overall quantity of PGMs in 2010. At the same time, the value of unwrought PGM imports rose significantly, owing to both increased prices for all PGMs and a higher percentage of imports composed of the more expensive rhodium. Despite costly and unreliable electric-power supplies[25] and furnace disruptions[26] to mine operations, South Africa continued to be the world's largest producer of platinum and the second-largest producer of palladium.[27] In 2010, South Africa was the premier U.S. supplier and accounted for the largest increase in U.S. import values of all PGMs in unwrought and powder forms. Imports of these products from South Africa rose by $752 million (57 percent) to $2.1 billion that year.

[18] Both U.S. NAFTA partners are medium-sized gold producers. Canadian mines produced 90 metric tons or 4 percent of all worldwide gold output in 2010, while Mexico produced 60 metric tons or 2 percent of global output. George, "Gold," January 2011, 67.

[19] Mexican mines produced 3,000 metric tons or 14 percent of all worldwide silver output in 2010. Brooks, "Silver," January 2011, 147.

[20] Canadian mines produced 700 metric tons or 3 percent of all worldwide silver output in 2010.

[21] Silver Institute, "Silver Jewelry Sales Hit New Records," March 2, 2011.

[22] WGC, "Gold Demand Trends, Full Year 2010," February 2011, 5. For further details, see the "Miscellaneous Manufactures" chapter.

[23] For industrial applications, PGMs are valued for their unique catalytic properties. The U.S. Geological Survey calculated U.S. net import reliance for PGMs at 94 percent of apparent consumption in 2010. Loferski, "Platinum-group Metals," January 2011, 120.

[24] There are only two operating PGM mines in the United States. They produced 3,500 kilograms or 2 percent of global output of platinum and 11,000 kilograms or 6 percent of global output of palladium in 2010. Loferski, "Platinum-group Metals," January 2011, 120–21.

[25] *Metal Bulletin*, "South Africa's Energy Woes Dampen Delegates' Optimism," February 8, 2010.

[26] *Metal Bulletin*, "Platinum Market Could Get Boost from Lonmin Furnace Shutdown," May 24, 2010.

[27] South Africa produced 138,000 kilograms or 75 percent of the global output of platinum and 73,000 kilograms or 37 percent of the global output of palladium in 2010. Loferski, "Platinum-group Metals," January 2011, 121.

Copper and Related Articles[1]

Kathryn Lundquist
(202) 205-2563
kathryn.lundquist@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Decreased by $0.1 billion (5 percent) to $1.4 billion
U.S. exports: Increased by $2.6 billion (55 percent) to $7.2 billion
U.S. imports: Increased by $2.5 billion (41 percent) to $8.6 billion

The U.S. trade deficit in copper and related articles decreased in 2010 for a fourth successive year. However, the cause of the decline differed from that in the previous three years when significant decreases in imports reduced the trade deficit. The trade deficit shrank in 2010 because the increase in U.S. exports exceeded the increase in imports (table MM.7). In terms of value, during 2010 the United States exported and imported significantly more of three main copper items: unrefined and refined (but unwrought) copper, copper wire, and copper waste and scrap.

In 2010, the increase in the value of U.S. trade in copper and related products reflected increased trade volumes for most copper articles as well as a rise in copper prices,[2] both of which were related to higher demand in the United States[3] and major U.S. trading partners.[4] The principal downstream consuming sectors for copper and copper articles are the construction industry (e.g., copper plumbing pipes and wire) and durable goods manufacturing (e.g., copper wire and copper alloys in various semi-manufactured forms). The value of trade was boosted by much higher average prices in 2010 for refined copper. Prices rose by 45 percent, from $2.33 per pound in 2009 to $3.41 per pound in 2010[5] as early-year commodity speculation drove up prices[6] and world refined copper consumption increased to its highest level in five years.[7] Prices were also driven higher

[1] This industry/commodity group includes unrefined and refined copper and copper alloys in unwrought forms, refined copper and copper alloys in various semi-manufactured forms (e.g., bars, rods, profiles, and wires; plates, sheets, strips, and foils; and tubes, pipes, and fittings), and refined copper and copper alloy waste, scrap, ash, and residues.

[2] USGS, "Copper," Mineral Commodity Summaries, January 2011, 48.

[3] U.S. consumption of refined copper, used to produce such items as copper wire and copper pipes and tubes, increased by 146 thousand metric tons (9 percent). WBMS, "Copper," February 16, 2011, 76.

[4] World refined copper consumption increased by 991 thousand metric tons (5 percent) in 2010 from 2009. This was partially driven by continued increases in Chinese refined copper consumption, up 275 thousand metric tons (4 percent), and European consumption, up 339 thousand metric tons (9 percent). WBMS, "Copper," February 16, 2011, 42. See also the "Economic Overview" chapter for more information on global economic improvements.

[5] London Metals Exchange (LME) grade-A cash price. Prices for unwrought and fabricated copper products are generally set at a premium, to reflect conversion charges, over the producers' delivered price of copper cathodes.

[6] Shumsky, "Premiums Steady As Copper Hits High," April 1, 2010.

[7] WBMS, "Copper," February 16, 2011, 41–42.

TABLE MM.7 Copper and related articles (MM036): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	1,241	1,381	1,339	766	1,087	322	42.0
China	1,665	2,051	1,982	1,705	2,778	1,073	62.9
Chile	2	2	2	2	3	1	50.0
Mexico	1,594	1,519	1,463	923	1,446	522	56.6
Peru	1	3	2	2	4	1	63.6
Germany	185	154	172	119	171	52	43.7
Korea	234	295	266	133	197	64	48.4
Japan	167	180	204	113	195	82	72.7
Hong Kong	144	182	318	231	336	105	45.5
Taiwan	223	133	89	59	85	27	44.1
All other	596	785	853	583	887	303	52.0
Total	6,052	6,684	6,691	4,636	7,189	2,552	55.0
EU-27	439	523	576	406	677	271	66.8
OPEC	41	45	62	43	44	1	2.3
Latin America	1,672	1,611	1,572	995	1,534	539	54.1
Asia	2,603	3,065	3,085	2,385	3,804	1,419	59.5
Sub-Saharan Africa	11	12	14	8	11	3	37.5
U.S. imports for consumption:							
Canada	3,364	3,561	3,696	1,922	2,561	639	33.3
China	653	708	807	458	491	33	7.2
Chile	4,145	3,407	2,759	1,465	2,314	849	58.0
Mexico	1,060	1,277	960	581	712	131	22.6
Peru	1,045	1,065	928	583	777	194	33.2
Germany	592	534	469	326	508	182	55.8
Korea	116	119	124	68	180	112	164.7
Japan	223	225	202	91	146	55	60.3
Hong Kong	5	6	7	3	4	1	33.3
Taiwan	133	123	98	58	84	26	44.8
All other	2,466	1,552	1,104	569	831	262	46.0
Total	13,803	12,577	11,153	6,125	8,609	2,484	40.6
EU-27	1,245	1,125	967	582	963	381	65.4
OPEC	5	3	4	2	9	7	350.0
Latin America	6,633	5,989	4,728	2,716	3,891	1,174	43.2
Asia	1,345	1,406	1,445	782	1,122	340	43.5
Sub-Saharan Africa	17	10	25	4	10	5	150.0

See footnote(s) at end of table.

TABLE MM.7 Copper and related articles (MM036): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-2,123	-2,179	-2,357	-1,156	-1,474	-318	-27.5
China	1,012	1,344	1,176	1,247	2,286	1,040	83.4
Chile	-4,142	-3,405	-2,756	-1,463	-2,311	-848	-58.0
Mexico	533	242	504	343	734	391	114.6
Peru	-1,044	-1,063	-926	-581	-773	-192	-33.1
Germany	-407	-380	-297	-208	-337	-129	-62.8
Korea	117	176	142	65	17	-48	-78.8
Japan	-56	-45	2	22	49	27	122.7
Hong Kong	139	176	311	228	332	104	45.6
Taiwan	90	10	-8	1	1	[a]	8.4
All other	-1,870	-768	-251	14	56	42	300.0
Total	-7,751	-5,893	-4,462	-1,488	-1,420	68	4.6
EU-27	-806	-602	-391	-176	-286	-110	-62.5
OPEC	36	42	58	41	35	-6	-14.6
Latin America	-4,961	-4,378	-3,156	-1,721	-2,357	-636	-36.6
Asia	1,258	1,659	1,640	1,602	2,682	1,079	67.4
Sub-Saharan Africa	-6	2	-12	3	1	-3	-45.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.

by a global copper supply deficit, projected at 247 thousand metric tons,[8] which reduced inventories of refined copper that had accumulated in 2009.[9]

U.S. Exports

In 2010, U.S. exports of copper and related articles increased by $2.6 billion (55 percent) to $7.2 billion. Exports of copper waste and scrap increased by $1.5 billion (77 percent) to $3.6 billion and accounted for the majority (61 percent) of the overall increase in exports. Exports of copper waste and scrap increased the most to China, the predominant foreign market for these U.S. exports, rising by $1 billion (80 percent).[10]

Copper waste and scrap is used in the production of semi-manufactures[11] for the rapidly growing Chinese construction and electronics industries. Although China produces copper domestically, the supply is too small to meet its copper demand.[12] In 2009, China had shifted from importing waste and scrap to importing refined copper (a substitute for copper scrap) due to pricing and availability.[13] In 2010, as world industrial production began to increase[14] and primary copper prices steadily rose, China returned to purchases of scrap[15] to gain the favorable price differential,[16] especially from low-priced U.S. sources.[17]

In 2010, U.S. exports of refined copper wire increased by $434 million (65 percent) to $1.1 billion. U.S. exports of refined copper wire to Mexico and Canada registered the greatest increases, rising by $310 million (70 percent) and $89 million (48 percent), respectively.[18] Together, Mexico and Canada accounted for 92 percent of the increase in U.S. exports of refined copper wire. These increases were nearly equivalent to the declines recorded in 2009 for the same countries and can be attributed to increased manufacturing of motors and machinery, electronics, and telecommunications equipment,[19] as all three NAFTA members' economies improved.[20]

U.S. exports of unrefined and refined copper also increased in value by $127 million (28 percent) to $579 million. However, this rise solely reflected higher refined copper prices, as the volume of this export fell by 15 thousand metric tons.[21] The decline in the quantity

[8] *AMM*, "Copper Will Continue to Hog the Limelight," February 1, 2011.

[9] Commodity exchanges held 119 thousand metric tons less of refined copper in their registered warehouses at the end of 2010 than a year ago. Likewise, producers, merchants, and consuming industries held 148 thousand metric tons less of refined copper in commercial inventories. WBMS, "Copper," February 16, 2011, 49.

[10] Compiled from official statistics of the U.S. Department of Commerce.

[11] Semi-manufactures include copper and copper alloy bars, rods, profiles, and wires; plates, sheets, strips, and foils; and tubes, pipes, and fittings. Total production of these items increased by 52 thousand metric tons (2.5 percent) from 2009 to 2010. WBMS, "Copper," February 16, 2011, 79.

[12] WBMS, "Copper," February 16, 2011, 56.

[13] USITC, "Shifts in U.S. Merchandise Trade 2009," August 2010, MM-31.

[14] See the "Economic Overview" chapter for more detailed information; USDOC, Census, "Full Report on Manufacturers' Shipments," March 4, 2011.

[15] WBMS, "Copper," February 16, 2011, 56.

[16] Shumsky, "China Steps Up Purchases of No. 2," *AMM*, July 21, 2010.

[17] *AMM*, "Discounts on US Copper Scrap Widen," October 8, 2010.

[18] Compiled from official statistics of the U.S. Department of Commerce.

[19] See also the "Canada" and "Mexico" chapters for more information on improvements in these economies and their manufactures.

[20] IMF, World Economic Outlook Database, October 2010.

[21] Compiled from official statistics of the U.S. Department of Commerce.

of unrefined and refined copper exports is closely related to the increases in U.S. exports of copper scrap, since the two are relatively substitutable in the production of brass, copper wire, and copper foundry articles. China accounted for the largest decline in the volume of U.S. exports of unrefined and refined copper; U.S. exports fell by 9 thousand metric tons (26 percent) from 2009.[22] China resumed its purchases of copper scrap when the price increased for refined copper in 2010.[23]

U.S. Imports

In 2010, the value of U.S. imports of copper and related articles increased by $2.5 billion (41 percent) to $8.6 billion. The principal reason for this growth was the rise in the price of refined copper. Also important was the increase in U.S. copper consumption in 2010,[24] coupled with a decline in U.S. copper mine and refinery production,[25] which led to an increase in the volume of U.S. imports to supply demand. Unrefined and refined copper led the $1 billion (32 percent) increase in imports in 2010 and accounted for 44 percent of the increase in U.S. imports of copper and related articles.

U.S. imports from Chile and Canada, the largest suppliers of copper and related products to the United States, increased by $700 million and $170 million respectively, and accounted for 87 percent of the overall increase in U.S. imports of unrefined and refined copper.[26] In contrast, the volume of U.S. imports of unrefined and refined copper declined by 107 thousand metric tons (15 percent) as prices rose throughout the year, prompting U.S. buyers to source more lower-cost copper scrap, as discussed below.

Refined copper wire accounted for the next largest increase in U.S. imports, which rose by $280 million (47 percent) to $870 million. The increase in U.S. imports came almost entirely from Canada, rising by $290 million (63 percent) to $748 million. Whereas the overall import value increased along with the rise in the price of copper, the volume of copper wire imports fell slightly by 6 thousand metric tons (5 percent).[27] Although improvements in the U.S. economy and growth in the production of durable goods[28] boosted U.S. copper wire demand,[29] this demand was met mostly by increased domestic copper wire production,[30] thereby limiting the volume change in imports.

---

[22] Compiled from official statistics of the U.S. Department of Commerce.

[23] Whereas in 2009 China imported more refined copper and less copper and copper alloy waste and scrap, in 2010 China imported 265 thousand metric tons less of refined copper and 366 thousand metric tons more of copper and copper alloy waste and scrap. WBMS, "Copper," February 16, 2011, 56.

[24] USGS, "Copper," January 2011, 48–49. Consumption rose with improvements in the U.S. economy and increases in durable goods manufacturing, which uses such items as copper wire, copper rods, copper tubes, and copper castings. USDOC, Census, "Full Report on Manufacturers' Shipments," March 4, 2011.

[25] Copper output decreased both because of mine cutbacks and because of the overall reduced grade of ore extracted. USGS, "Copper," Mineral Commodity Summaries, January 2011, 48–49.

[26] Compiled from official statistics of the U.S. Department of Commerce.

[27] Compiled from official statistics of the U.S. Department of Commerce.

[28] Durable goods such as machinery, computers and electronic products, electrical equipment, appliances and components, and transportation equipment, all require copper wire as inputs. These items all registered growth in shipments and orders during January to December 2010. USDOC, Census, "Full Report on Manufacturers' Shipments," March 4, 2011, 8.

[29] USDOC, Census, "Full Report on Manufacturers' Shipments, Inventories and Orders January 2011," March 4, 2011. See also the "Economic Overview," "Electronic Products," "Motor Vehicles," "Transportation Equipment" and "Telecommunications" chapters for further details.

[30] U.S. copper wire production increased by 5 thousand metric tons in 2010. WBMS, "Copper," February 16, 2010, 79.

The value of U.S. imports of copper waste and scrap also grew substantially, from $165 million to $399 million (a 70 percent increase). Imports of copper waste and scrap from Canada and Mexico accounted for most of this increase (79 percent), rising by $80 million (62 percent) and $49 million (66 percent), respectively. The volume of U.S. imports of copper waste and scrap also rose by 24,000 metric tons (33 percent) as the United States increased its output of downstream copper and copper-alloy semimanufactures. As the price of refined copper increased and U.S. production of mined ores and concentrates declined,[31] U.S. copper fabricators switched to sourcing relatively lower-cost domestic and imported copper scrap as their raw material.[32]

[31] Petry, "Copper Short-, Long-Term Views at Odds," *AMM*, September 17, 2010.

[32] U.S. copper and copper alloy scrap consumption by wire and brass mills increased from 79 metric tons to 104 metric tons (32 percent) and by ingot makers from 40 metric tons to 48 metric tons (20 percent). WBMS, "Copper," February 16, 2010, 78.

Steel Mill Products[1]

Gerald Houck
(202) 205-3392
gerald.houck@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $2.5 billion (39 percent) to $8.8 billion
U.S. exports: Increased by $3.4 billion (32 percent) to $14.1 billion
U.S. imports: Increased by $5.9 billion (35 percent) to $22.9 billion

The U.S. trade deficit in steel mill products increased by $2.5 billion (39 percent) in 2010, with significant increases in both imports and exports as trade recovered partially from the impact of the global recession[2] (table MM.8). U.S. demand for and consumption of steel by the two leading end-use markets—automobile production and construction—varied. North American car and truck production increased to 12.2 million units in 2010, compared to 8.8 million in 2009.[3] However, construction expenditures in the United States declined over 10 percent during the same period, with most of the decline occurring in steel-intensive private nonresidential sectors such as hotels, commercial buildings, power plants, and manufacturing plants.[4]

Despite rising raw material costs owing to greater demand from China's growing economy and global economic upturn, prices of steel mill products changed little during 2010, with the exception of those of stainless steel products; the increase in the value of trade primarily resulted from an increase in the quantity of steel traded.

U.S. Exports

U.S. exports of steel mill products increased by $3.4 billion (32 percent), with exports to Canada—which rose by $2.3 billion (52 percent)—accounting for most of these gains. The increase in exports to Canada was attributable to increased demand for steel-intensive products, such as automobiles; Canada and the United States have highly integrated steel and automobile industries. Of products widely used in automobile and other manufacturing plants, exports of plate, sheet, and strip increased by $1.0 billion (53 percent) and exports of bars and rods increased by $305 million (54 percent). Exports to Canada of pipe and tube products—used largely in the production and transportation of oil—grew by $482 million (63 percent), as oil and gas production activity in Canada increased. The daily average number of oil-drilling rigs in operation in Canada rose by 59 percent in 2010.[5]

[1] This industry/commodity group includes products produced by steel mills, such as steel plates, sheets, strips, bars, rods, wire, and tubular products.
[2] NBER, "Business Cycle Dating Committee," September 20, 2010.
[3] WardsAuto.com, North America Car and Truck Production, 1951–2010, (accessed March 17, 2011).
[4] USDOC, U.S. Census Bureau, *Annual Value of Construction Put in Place 2002–2010.*
[5] Baker Hughes Incorporated, Baker Hughes Rig Count (accessed March 17, 2011).

TABLE MM.8 Steel mill products (MM025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	5,600	6,085	7,245	4,372	6,650	2,279	52.1
Mexico	1,998	2,189	3,022	2,042	2,677	635	31.1
Korea	104	124	208	158	225	67	42.4
Japan	63	72	64	37	42	4	13.5
Germany	168	252	273	138	259	121	87.7
China	321	532	1,023	700	481	-220	-31.4
India	152	203	259	233	243	10	4.3
Italy	90	164	278	115	216	101	87.7
Brazil	75	173	527	212	246	34	16.0
Taiwan	68	71	171	105	97	-8	-7.6
All other	1,841	2,671	3,667	2,535	2,952	417	16.4
Total	10,479	12,535	16,737	10,648	14,088	3,441	32.3
EU-27	843	1,417	1,619	823	1,181	358	43.5
OPEC	382	541	735	615	469	-147	-23.8
Latin America	2,500	2,976	4,846	3,047	3,897	850	27.9
Asia	909	1,346	2,146	1,617	1,684	67	4.2
Sub-Saharan Africa	202	167	178	227	168	-58	-26.0
U.S. imports for consumption:							
Canada	4,702	5,275	6,950	3,448	5,347	1,899	55.1
Mexico	2,437	2,426	3,257	1,379	2,187	808	58.6
Korea	1,813	1,499	2,207	1,105	1,727	622	56.3
Japan	1,886	1,727	2,128	1,580	1,855	275	17.4
Germany	1,428	1,635	1,949	1,004	1,510	506	50.4
China	3,605	3,968	5,995	2,007	1,108	-899	-44.8
India	909	1,043	1,750	829	1,034	205	24.7
Italy	823	954	902	644	714	70	10.8
Brazil	1,629	1,411	1,114	450	648	198	43.9
Taiwan	1,511	1,227	1,129	492	780	288	58.6
All other	10,757	8,040	9,489	4,058	6,019	1,961	48.3
Total	31,500	29,204	36,870	16,995	22,928	5,933	34.9
EU-27	6,753	7,348	7,597	4,214	5,785	1,571	37.3
OPEC	158	112	87	60	73	14	21.7
Latin America	4,566	4,281	4,961	2,059	3,161	1,102	53.5
Asia	10,410	9,960	13,599	6,183	6,694	511	8.3
Sub-Saharan Africa	344	164	109	30	114	84	280.0

See footnote(s) at end of table.

TABLE MM.8 Steel mill products (MM025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	898	809	295	923	1,303	380	41.0
Mexico	-440	-237	-235	663	489	-174	-26.2
Korea	-1,709	-1,375	-1,999	-947	-1,502	-555	58.7
Japan	-1,823	-1,655	-2,064	-1,542	-1,813	-271	17.6
Germany	-1,261	-1,383	-1,675	-865	-1,250	-385	44.5
China	-3,284	-3,436	-4,972	-1,307	-628	679	-52.0
India	-757	-840	-1,492	-595	-791	-195	32.8
Italy	-733	-791	-624	-529	-498	31	5.9
Brazil	-1,554	-1,238	-587	-238	-402	-164	68.8
Taiwan	-1,443	-1,156	-958	-387	-683	-296	76.5
All other	-8,915	-5,369	-5,822	-1,523	-3,067	-1,545	101.5
Total	-21,020	-16,670	-20,133	-6,349	-8,842	-2,492	39.3
EU-27	-5,910	-5,931	-5,978	-3,391	-4,604	-1,213	35.8
OPEC	223	430	648	555	395	-160	-28.6
Latin America	-2,066	-1,304	-115	987	736	-251	-25.4
Asia	-9,501	-8,614	-11,452	-4,566	-5,010	-444	9.7
Sub-Saharan Africa	-142	3	69	196	54	-142	-72.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

The U.S. stainless steel industry boosted its exports of stainless steel flat-rolled products, especially to Europe and Southeast Asia as well as to its traditional market in Canada. Exports of stainless steel flat-rolled products grew by 62 percent, with about half of that increase due to greater quantities of products exported and the remainder due to higher prices during 2010. The rise in prices of stainless steel products was driven by an increase in the cost of alloying elements used in their production, particularly nickel, molybdenum, and chromium, which were driven by higher demand, particularly from China. Nickel and molybdenum prices were about 50 percent higher during 2010 than in 2009 and chromium prices were about 40 percent higher.[6]

U.S. Imports

Overall, U.S. imports of steel mill products increased by $5.9 billion (35 percent) in 2010. Imports of semifinished steel for rolling in the United States showed one of the largest increases, rising by $1.6 billion (an increase of 184 percent). Many of the steel mills that import this product lack the capability to produce steel from basic raw materials and are, therefore, regular purchasers of semi-finished steel. In addition, some steel mills purchase semi-finished steel to supplement their in-house steelmaking capacity. Imports of semi-finished steel plummeted in 2009 as a result of the worldwide economic recession, and the increase of imports in 2010, while significant, did not make up for the decrease of $3.3 billion in 2009. Imports of semi-finished steel from Canada, the United States' top supplier, increased 228 percent and accounted for 35 percent of all semi-finished steel imports in 2010.[7] Canada had not been an important source of imports of semi-finished steel before the merger of U.S. Steel Corp. and a previously independent Canadian company, Stelco Inc. Since the merger, which occurred in 2007, the firm has taken advantage of available capacity in Canada to import semi-finished steel into the United States.[8]

Imports of semi-finished steel from Russia, the second-largest supplier, increased by 154 percent to $953 million from $280 million and accounted for 20 percent of total U.S. imports in 2010. Russian steel companies are owners or part owners of several steel rolling mills in the United States and import semi-finished steel from their plants in Russia. In addition, ThyssenKrupp, a large German steel firm, commenced operation of a new plant in Calvert City, Alabama, for the purpose of rolling imported semi-finished steel. While the firm did not begin importing until late in 2010, an increase in semi-finished steel imports from Brazil and Germany entering through the Mobile, Alabama, customs district accounted for 19 percent of the total increase in semi-finished steel imports.[9]

Imports of plate, sheet, and strip products, along with bars, rods, and light shapes, increased by a combined $2.5 billion and accounted for 43 percent of the total increase in U.S. imports of steel mill products in 2010. This increase was largely the result of greater imports from Canada and Mexico. As noted above, such products are widely used in automobiles and other manufactured products, and the increase in imports was driven by a rebound in U.S. manufacturing activity following the recession in 2009.

[6] Based on averages of periodic prices published by Metal Bulletin, http://www.metalbulletin.com/ (accessed March 23, 2011).

[7] Leading sources of semi-finished steel had been Brazil, Mexico, Russia, and Ukraine.

[8] American Metal Market, "Steel Imports Stalled despite leap in U.S. Prices," January 13, 2011.

[9] USITC, Dataweb (accessed March 21, 2011).

Imports of stainless steel plate, sheet, and strip increased by a robust $752 million (112 percent) and accounted for 13 percent of the total increase in U.S. imports of steel mill products in 2010. This increase was also due to increased manufacturing activity and the economic recovery in the United States. Imports of such products from China, the second-leading supplier, jumped by 250 percent to $85 million from $28 million and accounted for 24 percent of the total increase. As with the increase in the value of stainless steel exports, increased prices due to raw material costs accounted for about 30 percent of the increase in value of the stainless steel imports.

Imports of steel mill products from China fell by $899 million (45 percent), counter to the general trend of increasing imports. The decline was entirely due to lower imports of pipe and tube products, which dropped by $1.2 billion. Starting in 2008, seven different categories of pipe and tube products from China became subject to antidumping and countervailing duties, likely contributing to the reduced volume of imports from China into the United States.[10]

[10] MBR, *Seamless Steel Tube and Pipe Market Tracker,* February 2010, 1; October 2009, 1, 3, 5; November 2009, 3; August 2010, 3; and February 2011, 5; *Welded Steel Tube and Pipe Market Tracker,* October 2009, 5.

Bibliography: Minerals and Metals

American Metal Market (AMM). "Copper Will Continue to Hog the Limelight in 2011," February 1, 2011.

———. "Discounts on US Copper Scrap Widen," October 8, 2011.

Baker Hughes Incorporated. Baker Hughes Rig Count. (accessed March 17, 2011).

Baker Hughes Inc. Worldwide Rig Count. (accessed March 24, 2011).

Brooks, William E. "Silver." In *Mineral Commodity Summaries 2011*. U.S. Department of the Interior, U.S. Geological Survey, January 2011, 146–47. http://minerals.usgs.gov/minerals/pubs/commodity/silver/mcs-2011-silve.pdf.

Business Wire. "Polished Diamond Prices Up 10 Percent in 2010." January 19, 2011.

Council of Economic Advisors (CEA). Economic Report of the President. Washington, DC GPO, 2011.

Economic Times (India). "China Now World's Second Largest Diamond Market." January 24, 2010.

Edelstein, Daniel L. "Copper." In *Mineral Commodity Summaries* 2011, January 21, 2011. 46–49. U.S. Department of the Interior, U.S. Geological Survey (USGS) http://minerals.usgs.gov/minerals/pubs/commodity/copper/mcs-2011-coppe.pdf (accessed March 10, 2011).

DeMarco, Anthony. Jewelry News Network, Report: 2010 Jewelry Sales Up 7.7 %" *Jewelry News Network (blog).* February 11, 2011. http://jewelrynewsnetwork.blogspot.com/2011/02/report-2010-jewelry-sales-up-77.html

Fenton, Michael D. "Iron and Steel," In *Mineral Commodity Summaries.* U.S. Department of the Interior, U.S. Geological Survey, January 2011, 78–79. http://minerals.usgs.gov/minerals/pubs/commodity/iron_&_steel/mcs-2011-feste.pdf

George, Michael W. "Gold." In *Mineral Commodity Summaries 2011*. U.S. Department of the Interior, U.S. Geological Survey, January 2011, 66–67. http://minerals.usgs.gov/minerals/pubs/commodity/gold/mcs-2011-gold.pdf.

International Monetary Fund (IMF). *World Economic Outlook: Recovery, Risk, and Rebalancing*. World Economic Outlook Update, October 2010.

———. "World Economic Outlook Database," October 2010.

Johnson Matthey. *Platinum 2010 Interim Review*, November 16, 2010. http://www.platinum.matthey.com/publications/pgm-market-reviews/archive/platinum-2010-interim-review/

Journal of Gem & Jewellery Industry. "Jump in Diavik's Rough Diamonds Output." News & Notes. November–December 2010, 18.

Loferski, Patricia J. "Platinum-group Metals." In *Mineral Commodity Summaries 2011*. U.S. Department of the Interior, U.S. Geological Survey, January 2011, 120–21. http://minerals.usgs.gov/minerals/pubs/commodity/platinum/mcs-2011-plati.pdf.

———. "Platinum-group Metals." In *Mineral Industry Surveys*. U.S. Department of the Interior, U.S. Geological Survey, various months 2010, and January 2011. http://minerals.usgs.gov/minerals/pubs/commodity/platinum/index.html#mis.

London Bullion Market Association. Gold Fixings database. http://www.lbma.org.uk/pages/index.cfm?page_id=53&title=gold_fixings.

———. Silver Fixings database. http://www.lbma.org.uk/pages/index.cfm?page_id=54&title=silver_fixings.

Metal Bulletin. "South Africa's Energy Woes Dampen Delegates' Optimism," February 8, 2010. http://www.metalbulletin.com.

———. "Platinum Market Could Get Boos from Lonmin Furnace Shutdown," May 24, 2010. http://www.metalbulletin.com.

Metal Bulletin Research (MBR). *Seamless Steel Tube and Pipe Market Tracker*. October 2009, November 2009, February 2010, August 2010, and February 2011.

———. *Welded Steel Tube and Pipe Market Tracker*, October 2009.

Montgomery, Michael. Diamond Investing News. "Signs Diamond Market is Headed Towards Recovery," May 31, 2010. http://diamondinvestingnews.com/2080-signs-diamond-market-is-headed-oward-recovery.html

Newman, Harold R. "The Mineral Industry of Switzerland." In *2009 Minerals Yearbook (Advanced Release)*. U.S. Department of the Interior, U.S. Geological Survey, December 2010. http://minerals.usgs.gov/minerals/pubs/country/2009/myb3-2009-sz.pdf.

Petry, Corinna. "Copper Short-, Long-Term Views at Odds." *American Metal Market*, September 17, 2010.

Reading, Tony. News Investing Company. "A Play on the Diamond Market," February 22, 2011.

Reddy, Sudeep. "Export Shift Turns Rivals into Allies." *Wall Street Journal*, February 12, 2011.

Riley, Anne. "Interest in Metals Set to Skyrocket, U.S. Gold Chief Exec Says." *American Metal Market*, January 14, 2010.

Shumsky, Tatyana. "China Steps Up Purchases of No. 2 Copper Scrap from US." *American Metal Market*, July 21, 2010.

———. "Premiums Steady As Copper Hits High." *American Metal Market*, April 1, 2010.

Silver Institute: "GFMS' Interim Silver Market Review." Press release, November 17, 2010. http://www.silverinstitute.org/images/stories/silver/PDF/gfmsmktpr10.pdf.

———. "Investors Remain Bullish: GFMS Report." *Silver News,* fourth quarter 2010, 1. http://www.silverinstitute.org/images/pdfs/4q2010.pdf.

———. "Silver Jewelry Sales Hit New Records: 2010 Survey Results Surpass 2009 Success." Press release, March 2, 2011. http://www.silverinstitute.org/pr02mar2011.php.

U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). "Table 1.1.5 Gross Domestic Product." National Economic Accounts database. http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=5&Freq=Qtr&FirstYear=2008&LastYear=2010. (accessed March 24, 2011).

———.National Economic Accounts database. Personal Consumption Expenditures by Type of Products. http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=64&ViewSeries=NO&Java=no&Request3Place=N&3Place=N&FromView=YES&Freq=Year&FirstYear=2008&LastYear=2010&3Place=N&Update=Update&JavaBox=no#Mid (accessed March 24, 2011).

USDOC. U.S. Census Bureau. *Annual Value of Construction Put in Place 2002–2010.* http://www.census.gov/const/C30/total.pdf

———.Table 8: "Full Report on Manufacturers' Shipments, Inventories and Orders, January 2011." *U.S. Census Bureau News*, M3-2 (11)-01, CB11-43, March 4, 2011, Table 8, "Revisions to Previously Published Monthly Percent Changes. http://www.census.gov/manufacturing/m3/prel/pdf/s-i-o.pdf (accessed March 10, 2011).

WardsAuto.com. "North America Car and Truck Production, 1951–2010." http://wardsauto.com/keydata/historical/NamPr01summary/.

World Bureau of Metal Statistics (WBMS). "Copper." World Metal Statistics database, February 16, 2011.

World Gold Council (WGC). "Investment: Coins and Small Bars," n.d. http://www.gold.org/investment/why_how_and_where/how_to_invest/coins_and_small_bars/, (accessed March 21, 2011).

———. "Gold Demand Trends: Full Year 2010," February 2011. http://www.gold.org/world_of_gold/market_intelligence/gold_demand/gold_demand_trends/

———. "Gold Demand Trends." Various quarters, 2011. http://www.gold.org/world_of_gold/market_intelligence/gold_demand/gold_demand_trends/ (March 21, 2010).

———. "Global Gold Demand in 2010 Reached a 10 Year High in Tonnage and All Time High in Value." Press release, February 17, 2011. http://www.gold.org/media/press_releases/archive/2011/02/global_gold_demand_in_2010_reached_a_10_year_high_in_tonnage_and_all_time_high_in_value/.

———. “Gold Price in 2010 Driven by Recovery in Key Sectors of Demand and Continued Economic Uncertainty.” Media alert, January 26, 2011. http://www.gold.org/media/press_releases/archive/2011/01/gold_price_in_2010_driven_by_recovery_in_key_sectors_of_demand_and_continued_global_economic_uncertainty/.

———. “Investment: Demand and Supply Statistics,” 2011. http://www.gold.org/investment/statistics/demand_and_supply_statistics/.

———. “Jewellery, China.” 2011. http://www.gold.org/jewellery/markets/china/.

———. “Jewellery, India.” 2011. http://www.gold.org/jewellery/markets/india/

Miscellaneous Manufactures[1]

Ralph Watkins
(202) 205-3492
ralph.watkins@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $12.1 billion (20 percent) to $71.8 billion
U.S. exports: Increased by $0.8 billion (3 percent) to $25.5 billion
U.S. imports: Increased by $12.9 billion (15 percent) to $97.3 billion

The U.S. trade deficit in miscellaneous manufactures increased by $12.1 billion (20 percent) to $71.8 billion in 2010, as imports rebounded from the 2008–09 recession at a much faster pace than exports (table MS.1). The trade deficit with China rose by $7.8 billion (16 percent) to $57.3 billion, nearly matching the record bilateral deficit of $58.6 billion set in 2008. Worldwide, the largest U.S. trade deficits were in furniture ($20.1 billion) and toys and games ($19.9 billion).[2]

Furniture, works of art, luggage, jewelry, toys and games, and lamps and lighting fittings accounted for two-thirds ($8.6 billion) of the total increase in imports in the miscellaneous manufactures sector in 2010. For the most part, the rise in imports of these products reflected the recovery of consumer spending deferred during the recession.[3] Arms, ammunition, and armored vehicles and furniture accounted for the largest increases in sector exports (table MS.2).[4]

U.S. Exports

U.S. exports of miscellaneous manufactures grew by $777 million (3 percent) to $25.5 billion in 2010. The increase was largely attributable to U.S. exports of arms, ammunition, and armored vehicles, which rose by $600 million (14 percent); furniture (up $480 million or 14 percent); and precious metal jewelry (up $396 million or 10 percent). Increases in these product groups helped to offset the decrease in U.S. exports of works of art and miscellaneous manufactures, which fell by $1.5 billion (29 percent). The economic significance of trends in the latter category is limited: most trade in paintings and other works of art is accounted for by touring exhibits, and the decline in exports can be attributed to fewer paintings being returned to their host museums or owners, chiefly in Europe.[5]

---

[1] The miscellaneous manufactures sector encompasses a variety of industry groups, including luggage, handbags, umbrellas, silverware, jewelry, furniture, lamps, prefabricated buildings, writing instruments, musical instruments, bicycles, toys, games, sporting goods, arms and ammunition, tanks and other armored vehicles, brooms and brushes, hair grooming articles, and apparel fasteners. For the most part, the manufacturing processes used to make these products are mature, and imports supply a significant share of the U.S. market.

[2] In 2010, the United States maintained a trade surplus in only three product groups in this sector: arms, ammunition, and armored vehicles ($905 million); prefabricated buildings ($633 million); and apparel fasteners ($67 million), totaling $1.6 billion.

[3] The National Bureau of Economic Research determined that the recession began December 2007 and ended in June 2009. NBER, "Business Cycle Dating Committee," September 20, 2010.

[4] Trade statistics for all industry/commodity groups in this sector are presented in app. A, table A-7.

[5] Touring exhibits, if they are composed of works of art, are reported as imports when they arrive in the United States and as exports when they depart.

TABLE MS.1 Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	207	307	367	362	354	-8	-2.2
Canada	4,425	5,067	5,449	4,664	5,175	511	11.0
Mexico	1,665	2,031	1,650	1,511	1,633	122	8.1
United Kingdom	2,458	2,949	3,362	2,772	2,226	-546	-19.7
France	687	775	1,125	736	801	65	8.8
Japan	2,034	1,915	1,862	1,480	1,657	177	12.0
Italy	249	327	335	346	304	-42	-12.1
Taiwan	380	385	279	217	444	228	105.0
Germany	675	685	786	670	756	86	12.8
Vietnam	10	16	23	21	18	-3	-14.8
All other	9,648	11,496	12,584	11,987	12,174	187	1.6
Total	22,438	25,954	27,821	24,765	25,542	777	3.1
EU-27	5,684	6,639	7,862	6,340	5,612	-728	-11.5
OPEC	718	907	1,183	1,237	1,394	157	12.7
Latin America	3,630	4,278	4,336	3,997	4,405	408	10.2
Asia	4,887	5,293	5,508	4,584	5,963	1,379	30.1
Sub-Saharan Africa	156	192	237	188	245	57	30.6
U.S. imports for consumption:							
China	51,068	58,306	58,917	49,892	57,635	7,743	15.5
Canada	6,013	5,825	5,264	4,052	4,521	468	11.6
Mexico	3,953	3,800	3,483	3,013	3,539	526	17.4
United Kingdom	2,274	2,895	2,671	1,897	2,010	113	6.0
France	3,037	3,937	3,302	2,191	3,026	836	38.1
Japan	2,026	1,969	1,835	1,620	1,720	100	6.2
Italy	3,464	3,804	3,329	2,448	2,654	207	8.4
Taiwan	2,256	2,297	2,405	1,956	2,487	531	27.2
Germany	1,713	1,816	1,890	1,448	1,538	89	6.2
Vietnam	1,096	1,455	1,685	1,694	2,251	557	32.9
All other	17,200	17,802	16,057	14,226	15,966	1,739	12.2
Total	94,099	103,905	100,837	84,437	97,346	12,909	15.3
EU-27	13,602	15,931	14,520	10,955	12,335	1,380	12.6
OPEC	64	59	52	40	35	-5	-13.1
Latin America	5,496	5,295	4,835	4,102	4,632	530	12.9
Asia-Saharan Africa	185	183	140	135	229	94	69.9

See footnote(s) at end of table.

TABLE MS.1 Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-50,861	-57,999	-58,550	-49,530	-57,281	-7,751	-15.6
Canada	-1,588	-758	184	612	654	43	7.0
Mexico	-2,288	-1,769	-1,832	-1,502	-1,906	-404	-26.9
United Kingdom	184	53	691	875	216	-659	-75.3
France	-2,350	-3,162	-2,177	-1,454	-2,225	-771	-53.0
Japan	8	-54	27	-140	-62	77	55.3
Italy	-3,215	-3,476	-2,994	-2,102	-2,350	-249	-11.8
Taiwan	-1,875	-1,912	-2,126	-1,739	-2,043	-304	-17.5
Germany	-1,038	-1,131	-1,104	-778	-782	-3	-0.4
Vietnam	-1,085	-1,438	-1,661	-1,674	-2,234	-560	-33.5
All other	-7,551	-6,306	-3,473	-2,239	-3,791	-1,552	-69.3
Total	-71,661	-77,951	-73,015	-59,672	-71,804	-12,132	-20.3
EU-27	-7,918	-9,292	-6,658	-4,615	-6,724	-2,109	-45.7
OPEC	654	848	1,131	1,198	1,359	162	13.5
Latin America	-1,866	-1,017	-499	-105	-227	-122	-115.7
Asia	-61,014	-68,161	-67,092	-56,866	-65,794	-8,928	-15.7
Sub-Saharan Africa	-29	10	97	53	16	-37	-69.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

Security threats throughout the world drove foreign demand for U.S. exports of arms, ammunition, and armored vehicles in 2010. Export growth was led by a $246 million (12 percent) increase in exports of bombs, grenades, and missiles, largely to the Republic of Korea (Korea), Taiwan, and the United Arab Emirates. Korea accounted for all of the growth in exports of parts for military weapons, which rose by $134 million (36 percent).

The increase in U.S. exports of furniture was small, and U.S. exports in 2010 still fell short of total U.S. exports in 2008. However, the U.S. furniture industry benefited from Canada's ongoing recovery from the 2008–09 global recession, as U.S. exports of furniture to Canada grew by $228 million (13 percent) in 2010 to $1.9 billion, accounting for nearly one-half of the increase in U.S. furniture exports in 2010. Virtually all segments of the U.S. furniture industry experienced increased exports, including both residential and office furniture (especially office/computer chairs), wood furniture, upholstered seating, and residential furniture of metal.[6] The 10 percent increase in the value of U.S. exports of jewelry made from precious metal in 2010 can be attributed to increases in the prices of gold (up 26 percent), silver (up 38 percent), platinum (up 34 percent), and palladium (up 100 percent).[7]

U.S. Imports

Recovery from the 2008–09 recession led to a $12.9 billion (15 percent) increase in U.S. imports of miscellaneous manufactures to $97.3 billion in 2010 (table MS.2). Imports increased in 17 of the sector's 19 product groups.[8] China accounted for 59 percent of the value of sector imports, as imports from China increased by $7.7 billion (16 percent) to $57.6 billion.

Despite low turnover in the housing market, which is usually the main driver of furniture demand, U.S. furniture imports rose by $3.9 billion (20 percent) in 2010 to $24.0 billion.[9] China continues to be the dominant supplier to the U.S. market, with imports from China growing by $2.5 billion (22 percent) in 2010. Because imports of wooden bedroom furniture from China are subject to an antidumping duty order, Vietnam emerged as an alternative source; U.S. furniture imports from Vietnam increased by $436 million (32 percent) in 2010 to $1.8 billion.

U.S. imports of works of art and miscellaneous manufactures increased by $1.7 billion (20 percent) in 2010 to $10.3 billion, driven by a $1.2 billion (31 percent) rise in imports of paintings and sculptures.[10] France was the leading source of such imports, which grew by $775 million (81 percent). Most of these imports are works of art that will be exhibited in U.S. museums, and they will be reported as exports when they are returned to their host museums and collectors.

---

[6] USITC, DataWeb (accessed March 25, 2011). The furniture industry grew by 14 percent in 2010, but fell $327 million short of the 2008 level of $4.2 billion.

[7] Calculated from statistics of the London Bullion Market Association and from statistics compiled by the U.S. Geological Survey from statistics of *Platts Metals Week*.

[8] The only product groups in the miscellaneous manufactures sector to experience a decline in U.S. imports in 2010 were silverware (down by 1 percent) and arms, ammunition, and armored vehicles (down by 2 percent).

[9] By comparison, after shrinking by $20.9 billion (24 percent) during 2007–09, U.S. producers' shipments of furniture edged upward by $1.4 billion (2 percent) in 2010 to $66.7 billion**.** USDOC, Census, "Full Report on Manufacturers' Shipments, Inventories, and Orders, December 2010," February 3, 2011, table 1.

[10] Based on official statistics of the U.S. Department of Commerce.

TABLE MS.2 Miscellaneous manufactures: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Arms, ammunition, and armored vehicles (MS019)	3,616	4,097	3,939	4,292	4,892	600	14.0
Furniture (MS009)	3,354	3,691	4,229	3,392	3,872	480	14.2
Precious jewelry and related articles (MS006)	3,694	4,193	4,266	3,931	4,327	396	10.1
Decreases:							
Works of art and miscellaneous manufactured goods (MS017)	3,837	5,011	6,064	5,169	3,680	-1,489	-28.8
All other	7,937	8,963	9,324	7,981	8,771	789	9.9
Total	22,438	25,954	27,821	24,765	25,542	777	3.1
U.S. IMPORTS:							
Increases:							
Furniture (MS009)	26,078	26,731	25,285	20,057	24,005	3,948	19.7
Luggage, handbags, and flat goods (MS001)	6,834	7,535	7,833	6,395	7,917	1,522	23.8
Precious jewelry and related articles (MS006)	9,553	9,463	7,322	5,755	6,945	1,190	20.7
Toys and games (MS013)	17,840	22,778	23,809	21,256	22,387	1,131	5.3
Lamps and lighting fittings (MS011)	6,180	6,211	5,988	4,709	5,824	1,116	23.7
Brooms, brushes, and hair grooming articles (MS016)	1,275	1,363	1,404	1,292	1,473	181	14.0
Decreases:							
Arms, ammunition, and armored vehicles (MS019)	2,240	2,976	3,280	4,076	3,988	-88	-2.2
Silverware and related articles of precious metal (MS005)	302	294	849	1,398	1,383	-15	-1.1
All other	23,796	26,554	25,067	19,499	23,425	3,926	20.1
Total	94,099	103,905	100,837	84,437	97,346	12,909	15.3

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

Spending in the U.S. travel industry began to emerge from a deep trough in 2010,[11] which spurred U.S. luggage imports to grow by $1.3 billion (35 percent) to a record $4.9 billion. As a whole, U.S. imports of leather goods (luggage, handbags, and flat goods) rose by $1.5 billion (24 percent) to $7.9 billion. China was the dominant supplier, accounting for over three-quarters of such imports, with imports from China climbing by $1.2 billion (25 percent) to $6.2 billion in 2010.

U.S. imports of jewelry made from precious metal grew by $1.2 billion (21 percent) in 2010 to $6.9 billion. However, this growth is largely attributed to increased prices for precious metals, the principal raw materials for jewelry.[12] India, China, and Thailand were the leading suppliers of jewelry made from precious metal in 2010, accounting for 21 percent, 18 percent, and 14 percent, respectively, of total U.S. imports. [13]

Lower demand for video games[14] limited growth in U.S. imports of toys and games in 2010. The $1.1 billion growth in U.S. imports of toys and games to $22.4 billion amounted to an increase of 5 percent in 2010. China remained the dominant supplier, accounting for 87 percent of all imports of these goods. Video games used with television receivers (home video games)[15] accounted for over one-third of all U.S. imports of toys and games. China supplied 97 percent of U.S. imports of home video games, despite a decline in imports of $539 million (8 percent) to $6.5 billion in 2010. The video game market is likely to contract gradually until the next generation of video game consoles is introduced.[16] U.S. imports of toys, however, rebounded by $1.9 billion (20 percent) to a record $11.2 billion in 2010, with China accounting for 87 percent of such imports.

Sales of lamps and lighting fittings usually follow the same trends as sales of furniture and did so again in 2010. U.S. imports of lamps and lighting fittings climbed by $1.1 billion (24 percent) in 2010 to $5.8 billion. China was the dominant supplier to the U.S. market, accounting for over two-thirds of total imports.

[11] Travel Goods Association, "First Half 2010 State of the U.S. Travel Goods Market" (accessed March 30, 2011).

[12] For details on pricing of precious metals see "Precious Metals and Non-numismatic Coins," chapter.

[13] Changes in values of U.S. imports were mixed in 2010 compared to the previous year for certain precious jewelry from India that were not eligible for duty-free treatment under the Generalized System of Preferences (GSP) Program. U.S. import values declined for rope, mixed-link, and other types of gold necklaces and neck chains, but increased for certain silver jewelry articles and for certain non-silver jewelry articles and parts thereof.

[14] Nick Saint, "What Japan's Shrinking Video Game Market Means for the U.S.," *Business Insider*, January 5, 2010.

[15] The other principal categories of video games are arcade games (usually coin- or token-operated), hand-held games, and computer games.

[16] Nick Saint, "What Japan's Shrinking Video Game Market Means for the U.S.," *Business Insider*, January 5, 2010.

Bibliography: Miscellaneous Manufactures

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Saint, Nick. "What Japan's Shrinking Video Game Market Means for the U.S." *Business Insider*, January 5, 2010. http://www.businessinsider.com/japanese-video-game-market-shrunk-in-2009-for-second-straight-year-2010-1.

Travel Goods Association. "First Half 2010 State of the Travel Goods Market." http://www.travel-goods.org/stories/images/tgamarket2010-charts.pdf.

U.S. Department of Commerce (USDOC). Census Bureau (Census). "Full Report on Manufacturers' Shipments, Inventories, and Orders, December 2010." U.S. Census Bureau News, February 3, 2011.

U.S. International Trade Commission (USITC). Interactive Tariff and Trade Database (DataWeb). http://dataweb.usitc.gov (accessed March 25, 2011).

Machinery

Ruben Mata
(202) 205-3403
ruben.mata@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $1.5 billion (6 percent) to $26.1 billion
U.S. exports: Increased by $19.0 billion (22 percent) to $104.4 billion
U.S. imports: Increased by $20.4 billion (19 percent) to $130.5 billion

In 2010, the U.S. merchandise trade deficit in machinery increased by $1.5 billion (6 percent) to $26.1 billion (table MT.1). U.S. exports of machinery rose by $19.0 billion (22 percent) to $104.4 billion, whereas U.S. imports rose by $20.4 billion (19 percent) to $130.5 billion. Expanding demand in the East Asian markets and those of the United States' North American neighbors, combined with the depreciation of the U.S. dollar relative to most advanced-country currencies, contributed to export growth in this sector. However, the rise in U.S. imports exceeded export growth, in part because of increased U.S. business spending for capital equipment and machinery used in infrastructure projects.[1]

U.S. Exports

The four foreign markets that registered the largest percentage increases in U.S. machinery exports in 2010 were Taiwan (up by 79 percent), Korea (up by 64 percent), China (up by 46 percent), and Singapore (up by 30 percent). Collectively, these four major export destinations accounted for 42 percent of total sector exports in 2010. The leading U.S. industries in the sector in terms of export growth included semiconductor manufacturing equipment (SME), welding and soldering equipment, and nonautomotive insulated electric wire and related products (table MT.2).

In 2010, a rebound in the global economy, particularly in East Asian economies, led to rising demand for U.S.-produced SME. U.S. exports of SME jumped by $8.2 billion (99 percent) to $16.5 billion. The increase in demand for SME from East Asia, including Taiwan, China, Korea, and Japan, was largely attributed to rising expenditures on capital equipment and modernization of production processes.[2]

Total U.S. exports of welding and soldering equipment increased by $203 million (30 percent) to $879 million in 2010.[3] U.S. exports of these goods to China rose significantly because of greater demand in several Chinese advanced technology industry sectors, including automotive, aerospace, and power generation.

The principal types of welding and soldering equipment exported to China were arc welding products, robotic welding systems, and advanced process welders. The growth in

[1] USDOC, BEA, "Gross Domestic Product: Fourth Quarter 2010 (Final)," March 25, 2010.
[2] Datamonitor, "Novellus Systems, Inc.: Company Profile," September 2010, 21.
[3] Datamonitor, "Lam Research Corp.: Company Profile," October 2010, 18.

TABLE MT.1 Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	5,270	6,086	6,628	5,424	7,903	2,479	45.7
Mexico	12,079	11,461	12,525	10,440	11,653	1,214	11.6
Canada	19,331	20,013	21,080	17,428	20,313	2,885	16.6
Japan	5,143	4,827	4,213	2,588	2,992	405	15.6
Germany	3,779	4,134	4,262	2,869	3,734	864	30.1
Korea	4,699	5,047	4,145	3,454	5,659	2,204	63.8
Taiwan	4,696	5,428	3,798	3,276	5,856	2,580	78.7
United Kingdom	2,962	3,177	3,301	2,426	2,755	330	13.6
Italy	1,067	1,071	1,170	918	977	59	6.4
Singapore	3,235	3,435	3,251	2,583	3,367	784	30.4
All other	30,177	35,555	42,394	34,004	39,152	5,148	15.1
Total	92,438	100,235	106,766	85,410	104,361	18,951	22.2
EU-27	16,350	17,352	18,605	13,543	15,521	1,978	14.6
OPEC	4,489	6,198	7,670	6,487	7,054	567	8.7
Latin America	19,229	19,956	23,720	19,463	23,540	4,077	20.9
Asia	27,875	30,016	27,619	22,216	31,969	9,753	43.9
Sub-Saharan Africa	1,097	1,391	1,790	1,834	1,990	156	8.5
U.S. imports for consumption:							
China	25,569	28,386	29,923	25,996	32,326	6,330	24.4
Mexico	18,228	19,976	20,028	16,584	20,548	3,964	23.9
Canada	13,076	13,675	13,613	10,352	10,899	547	5.3
Japan	19,425	17,099	17,054	11,634	15,202	3,569	30.7
Germany	14,370	15,099	16,086	11,063	12,286	1,223	11.1
Korea	3,958	4,644	4,835	4,786	5,675	890	18.6
Taiwan	3,395	3,441	3,382	2,324	2,811	487	20.9
United Kingdom	3,743	3,865	3,929	2,818	2,953	135	4.8
Italy	5,246	5,514	5,832	4,492	4,369	-123	-2.7
Singapore	608	649	665	481	871	390	81.0
All other	23,188	26,329	26,751	19,533	22,530	2,997	15.3
Total	130,806	138,676	142,098	110,062	130,470	20,408	18.5
EU-27	36,486	39,775	41,416	29,322	31,780	2,458	8.4
OPEC	77	93	122	73	95	22	30.2
Latin America	20,124	22,159	21,908	17,885	21,967	4,081	22.8
Asia	56,936	58,625	60,362	48,808	61,489	12,681	26.0
Sub-Saharan Africa	314	422	359	226	319	93	41.2

See footnote(s) at end of table.

TABLE MT.1 Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-20,299	-22,300	-23,295	-20,572	-24,423	3,852	18.7
Mexico	-6,148	-8,515	-7,502	-6,144	-8,895	-2,750	44.8
Canada	6,255	6,338	7,467	7,076	9,414	2,338	33.0
Japan	-14,282	-12,272	-12,841	-9,046	-12,210	-3,164	35.0
Germany	-10,592	-10,965	-11,824	-8,194	-8,553	-359	4.4
Korea	741	403	-690	-1,331	-17	1,315	-98.8
Taiwan	1,301	1,988	415	952	3,045	2,093	219.8
United Kingdom	-781	-687	-628	-392	-198	195	-49.6
Italy	-4,179	-4,443	-4,662	-3,574	-3,392	182	-5.1
Singapore	2,626	2,786	2,586	2,102	2,497	395	18.8
All other	6,989	9,226	15,643	14,471	16,622	2,151	14.9
Total	-38,368	38,443	-35,331	-24,652	-26,109	-1,457	5.9
EU-27	-20,136	-22,423	-22,811	-15,779	-16,259	-480	3.0
OPEC	4,412	6,105	7,548	6,413	6,958	545	8.5
Latin America	-896	-2,203	1,812	1,577	1,573	-4	-0.3
Asia	-29,061	-28,610	-32,743	-26,591	-29,520	-2,928	11.0
Sub-Saharan Africa	783	969	1,431	1,608	1,671	63	3.9

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

TABLE MT.2 Machinery: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Semiconductor manufacturing equipment (MT019A)	14,232	16,974	11,901	8,278	16,465	8,187	98.9
Taps, cocks, valves, and similar devices (MT020)	5,010	5,757	6,427	5,929	7,071	1,142	19.3
Nonautomotive insulated electrical wire and related products (MT029)	4,110	4,586	4,733	3,727	4,790	1,063	28.5
All other	69,087	72,917	83,706	67,476	76,035	8,559	12.7
Total	92,438	100,235	106,766	85,410	104,361	18,951	22.2
U.S. IMPORTS:							
Increases:							
Semiconductor manufacturing equipment (MT019A)	4,902	8,397	7,370	5,598	8,898	3,299	58.9
Household appliances, including commercial applications (MT004)	16,574	17,904	18,350	16,608	19,731	3,124	18.8
Taps, cocks, valves, and similar devices (MT020)	8,942	9,628	9,760	7,542	9,661	2,119	28.1
Nonautomotive insulated electrical wire and related products (MT029)	6,071	6,640	6,463	4,540	6,025	1,485	32.7
Decreases:							
Boilers, turbines, and related machinery (MT022)	1,001	1,542	1,773	1,899	1,614	-285	-15.0
Industrial thermal-processing equipment and furnaces (MT003)	2,853	3,356	4,094	3,648	3,365	-283	-7.8
Non-metalworking machine tools (MT018)	1,776	1,861	1,674	1,287	1,090	-198	-15.4
Metal rolling mills (MT014)	352	322	488	523	382	-141	-27.0
All other	88,337	89,027	92,125	68,416	79,705	11,289	16.5
Total	130,809	138,676	142,098	110,062	130,470	20,408	18.5

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

demand for advanced technology products in China prompted various U.S. welding corporations, such as Lincoln Electric Holdings, to acquire or form various joint venture operations in China.[4]

U.S. exports of nonautomotive insulated electric wire and related products increased by $1.1 billion (29 percent) to $4.8 billion in 2010. This increase reflects economic growth in China and Korea. Nonautomotive insulated electric wire and related products are employed in numerous industry applications, such as oil and gas exploration, telecommunications systems, microwave and cable, and aerospace production.[5]

U.S. Imports

The rise in U.S. machinery imports in 2010 continued to be broad-based, with the greatest percentage growth occurring in imports of SME, textile machinery, nonelectric powered hand tools, and valves. The four leading U.S. suppliers in 2010 were China, Mexico, Japan, and Germany. Collectively, these four major trading partners accounted for 69 percent of total export growth in 2010.[6]

U.S. imports of SME rose by $3.3 billion (59 percent) to $8.9 billion. Imports of these products consisted largely of equipment for manufacturing silicon wafers, processing wafers, and wafer assembly and packaging. Increased demand in the consumer electronics sector stimulated growth in the U.S. semiconductor manufacturing industry in 2010, prompting greater imports of SME.[7]

Total U.S. imports of textile machinery increased by $346 million (41 percent) to $1.2 billion in 2010. The increase in U.S. textile machinery imports reflects rising demand in several domestic sectors for wet spinning equipment used in the production of Kevlar, a high-tensile-strength synthetic fiber. Kevlar and other synthetic materials are used in U.S. industry applications such as ballistic vests and military armor, automobile parts (brake pads), and fire protection products such as gloves and suits.[8] In 2010, U.S. imports of textile machinery increased because of increases in federal, state, and local government spending related to the American Recovery and Reinvestment Act of 2009.[9]

U.S. imports of nonelectric-powered tools rose by $387 million (38 percent) to $1.4 billion because of improved U.S. economic conditions and rising demand by professional end users and other consumers. Nonelectric-powered tools, such as cordless impact drills, circular saws, pistol-grip drills, and grinders and sanders, were the leading U.S. import machinery categories in 2010.[10]

U.S. imports of taps, cocks, and valves increased by $2.1 billion (28 percent) to $9.7 billion in 2010. Imports of these products rose as U.S. GDP rose, boosting demand for valves, particularly those made in China, Japan, and Mexico. The majority of valves

---

[4] Datamonitor, "Lincoln Electric Holdings, Inc.: Company Profile," October 13, 2010, 19.

[5] Datamonitor, "Levitron Manufacturing: Company Profile," October 2010, 3.

[6] Wells Fargo Securities, "Weekly Economic & Financial Summary: Global Growth Continues," March 18, 2011, 1.

[7] Datamonitor, "Qualcomm Inc.: Company Profile," 5.

[8] *Farm Industry News,* "Kevlar Brake and Clutch Linings," May 2007.

[9] Industrial Fabrics Association International, "United States of America: Kissel Amendment to Protect Domestic Textile & Apparel Sector," February 2009; "The Recovery Act," n.d. http://www.recovery.gov/About/Pages/The_Act.aspx.

[10] Datamonitor, "Stanley Black & Decker, Inc.: Company Profile," 5.

imported from China and Mexico were commodity valves, whereas imports of Japanese-made valves were predominantly higher-value specialty products.[11] The U.S. industries in which valves are principally used include water treatment, wastewater, oil and gas, power generation, and chemical production.[12]

U.S. Employment

During 2005–10, employment in the U.S. machinery-manufacturing sector fell 15 percent to 993,000 employees.[13] This decline in employment stemmed as much from rapid gains in U.S. productivity (output per hour) as it did from increased competition from foreign producers. Competition from foreign producers helped spur U.S. firms to boost productivity, but it also dampened demand for products produced in the United States.

[11] See the "Valves" section of this report for more detailed information.

[12] *Valve Magazine*, "Valve Shipments Up in 2010," February 22, 2011.

[13] Based on official statistics from the U.S. Department of Labor.

Taps, Cocks, and Valves [1]

Ruben Mata
(202) 205-3403
ruben.mata@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $1.0 billion (61 percent) to $2.6 billion
U.S. exports: Increased by $1.1 billion (19 percent) to $7.1 billion
U.S. imports: Increased by $2.1 billion (28 percent) to $9.7 billion

In 2010, the U.S. trade deficit in taps, cocks, valves, and similar devices (hereafter collectively called valves) rose by $977 million (61 percent) to $2.6 billion (table MT.3). The increase in the valve trade deficit was principally due to the introduction of the U.S. American Recovery and Reinvestment Act 2009,[2] historically low interest rates,[3] and an increase in capital investment by business. These economic factors boosted spending across various major U.S. valve industry sectors, such as water and wastewater, oil and gas, process equipment controls, power generation, and chemical processing.[4]

U.S. Exports

U.S. valve exports grew by $1.1 billion (19 percent) to $7.1 billion in 2010 (table MT.3). The largest increases in U.S. exports were to Canada, Mexico, China, and Korea—the leading markets. These four countries accounted for about 48 percent of total U.S. exports of these products.

Canada was the leading export market for U.S. valves in 2010. U.S. exports to Canada increased by $181 million (13 percent) to $1.6 billion. The bulk of U.S. valve exports to Canada consisted of valves with hydraulic actuators and parts, representing 86 percent of product group exports to Canada in 2010. A sharp increase in demand for U.S. valve exports can be largely attributed to rising levels of capital spending and inventory build-up in major Canadian consuming industries such as construction, manufacturing, and mining.[5]

U.S. exports of valves to Korea more than doubled, rising by $175 million (106 percent) to $341 million in 2010. High levels of Korean economic growth during the first half of 2010 strengthened demand for U.S. valves.[6] Hand-operated valves made of iron and steel

[1] Valves are used to control the flow of liquids, gases, and solids through pipes or piping systems. These devices may be operated either by hand or by motors, solenoids, floats, thermostats, pressure capsules, or electronic sensors. Valves are produced from copper, iron or steel, cast iron, and a variety of other materials. Common types of valves include gate, globe, check, safety, and pressure valves, which vary in design and material composition in accordance with their functions. U.S. valve market applications include such diverse industries as shipbuilding and repair, petroleum refining, petrochemicals, pulp and paper, water and wastewater treatment, processed food and beverages, and household consumer goods.

[2] Recovery.gov, "The Recovery Act," n.d. (accessed April 25, 2011).

[3] Chan, "Fed Study Suggests Rates Will Stay at Record Lows," June 14, 2010.

[4] Halloran, "Market Focus: Conditions for Growth in End-User Markets," Fall 2010, 9.

[5] EIU, *Country Report: Canada 2010,* June 2010, 12.

[6] EIU, *Country Report: Korea,* June 2010, 14.

TABLE MT.3 Taps, cocks, valves, and similar devices (MT020): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	364	381	527	521	622	100	19.4
Mexico	874	906	982	840	927	88	10.5
Canada	1,534	1,609	1,647	1,446	1,627	181	12.5
Japan	169	192	168	124	180	57	45.2
Germany	174	224	249	183	263	79	43.7
Korea	118	139	140	166	341	175	105.4
United Kingdom	194	233	268	206	264	58	28.1
Taiwan	79	92	80	61	90	29	47.5
Italy	65	69	78	68	75	7	10.3
France	80	93	101	138	159	21	15.2
All other	1,358	1,819	2,187	2,176	2,523	347	16.0
Total	5,010	5,757	6,427	5,929	7,071	1,142	19.3
EU-27	739	889	996	865	1,083	218	25.2
OPEC	254	456	583	484	475	-10	-2.0
Latin America	1,201	1,274	1,498	1,292	1,598	307	23.8
Asia	1,031	1,199	1,381	1,371	1,826	455	33.2
Sub-Saharan Africa	59	99	129	189	194	5	2.6
U.S. imports for consumption:							
China	1,763	2,113	2,382	1,909	2,384	474	24.9
Mexico	1,313	1,349	1,349	1,141	1,486	344	30.2
Canada	688	716	661	531	605	74	14.0
Japan	1,105	1,093	1,053	760	1,106	346	45.6
Germany	1,008	999	952	718	845	126	17.6
Korea	186	209	220	183	246	63	34.4
United Kingdom	301	297	347	266	309	44	16.2
Taiwan	575	598	581	368	474	106	28.7
Italy	554	613	591	455	466	11	2.4
France	214	312	301	253	312	59	23.2
All other	1,235	1,330	1,325	958	1,429	472	49.2
Total	8,942	9,628	9,762	7,542	9,661	2,119	28.1
EU-27	2,569	2,734	2,710	2,041	2,433	392	19.2
OPEC	3	3	3	4	3	-1	-25.0
Latin America	1,470	1,515	1,475	1,217	1,567	351	28.8
Asia	3,950	4,397	4,680	3,569	4,630	1,062	29.8
Sub-Saharan Africa	6	6	4	2	3	1	50.0

See footnote(s) at end of table.

TABLE MT.3 Taps, cocks, valves, and similar devices (MT020): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-1,398	-1,732	-1,855	-1,388	-1,762	-374	27.0
Mexico	-439	-443	-367	-302	-558	-257	85.7
Canada	846	893	986	915	1,022	107	11.7
Japan	-937	-901	-885	-636	-925	-290	-45.6
Germany	-833	-775	-704	-535	-582	-47	-8.9
Korea	-68	-69	-79	-18	95	113	[a]
United Kingdom	-107	-64	-79	-60	-45	14	-25.0
Taiwan	-496	-506	-501	-307	-384	-77	25.1
Italy	-488	-544	-512	-387	-390	-3	0.9
France	-134	-219	-200	-115	-152	-38	32.9
All other	123	489	862	1,218	1,094	-124	-10.2
Total	-3,932	-3,871	-3,335	-1,613	-2,590	-977	-62.3
EU-27	-1,831	-1,845	-1,713	-1,176	-1,350	-174	-14.8
OPEC	251	453	580	481	472	-9	-1.8
Latin America	-269	-240	23	75	31	-44	-58.7
Asia	-2,919	-3,197	-3,299	-2,197	-2,805	-607	27.6
Sub-Saharan Africa	54	93	126	187	191	4	2.1

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

and pneumatic transmission valves represented nearly 77 percent of product group exports to Korea. The bulk of these U.S. valve exports to Korea are employed in oil and gas production and refining, liquefied natural gas plants, and electric power plants.

U.S. exports to China rose by $100 million (19 percent) to $622 million. The increase in Chinese demand was largely for highly engineered (customized) high-tech valves used primarily in energy-related applications and infrastructure projects. China's demand for U.S. valve exports was due to an increase in infrastructure and construction activity that stemmed from expansion and modernization of manufacturing production processes.[7]

U.S. valve exports to Mexico increased by $88 million (11 percent) to $927 million. A significant portion of U.S. exports to Mexico consists of highly precision-engineered valves and parts used primarily in pneumatic oil and gas transmission lines, petroleum refining, and infrastructure projects. Mexican demand for U.S. valve exports is reflective of economic growth in Mexico in 2010, giving a lift to manufacturing demand for valve production domestically.[8]

U.S. Imports

China was the leading supplier of valves to the U.S. market in 2010, accounting for 25 percent of total imports. U.S. valve imports from China—which consist largely of low-technology, labor-intensive, and commodity-type valves—are used primarily in residential home construction, building piping systems, and factory automation systems. The value of these products rose as the U.S. GDP growth rate increased to 2.9 percent in 2010, giving a lift to manufacturing demand for valves produced in China.

U.S. valve imports from Mexico, the second leading supplier, increased by $344 million (30 percent) to $1.5 billion in 2010. The bulk of U.S. valve imports from Mexico are commodity-type valves and parts used in numerous residential and industry applications. These valves have numerous U.S. industry applications, ranging from food and beverages to paper and pulp and to steel. Most U.S. imports of valves from Mexico are from assembly plants that either are subsidiaries of U.S. manufacturers or have contracts with them. The increase in demand for valves used in numerous U.S. industries was primarily due to the growing U.S. economy in 2010.[9]

U.S. imports of valves from Japan, the third leading supplier, rose by $346 million (46 percent) to $1.1 billion. The growth in valve imports from Japan was credited to rising manufacturing demand in the United States for higher-value specialty valves and parts employed in industry sectors such as subsea petroleum and natural gas exploration, power generation, and chemical refineries.[10]

[7] *Economist*, "China's Recovery: A Fine Balancing Act," July 16, 2009.
[8] Trading Economics, *National Statistical Data,* 2010.
[9] *Valve Magazine*, "Market Focus: Industrial Valve Forecast," (accessed spring 2011).
[10] *Petroleum Economist,* "Oil Majors Open Their Wallets," Mar. 16, 2011.

Bibliography: Machinery

Chan, Sewell. "Fed Study Suggests Rates Will Stay at Record Lows until 2012." *New York Times*, June 14, 2010. http://www.nytimes.com/2010/06/15/business/economy/15fed.html.

Datamonitor. "Lam Research Corp.: Company Profile," October 2010.

———. "Levitron Corp.: Company Profile," October 2010.

———. "Lincoln Electric Holdings, Inc.: Company Profile," October 13, 2010.

———. "Novellus Systems, Inc.: Company Profile," September 2010.

———. "Qualcomm Inc.: Company Profile," May 7, 2010.

———. "Stanley Black & Decker, Inc.: Company Profile," December 2010.

Economist. "China's Recovery: A Fine Balancing Act," July 16, 2009.

Economist Intelligence Unit (EIU). *Country Report: Canada,* June 2010.

———. *Country Report: Korea,* June 2010.

Farm Industry News. "Kevlar Brake and Clutch Linings." Vol. 40, issue 6, May 2007.

Halloran, Michael. "Market Focus: Condition for Growth in End-User Markets." *Valve Magazine*, Fall 2010.

Luria, Daniel. "Is Manufacturing in the United States Toast?" *Manufacturing & Technology News* 14, no.18 (October 17, 2007). http://www.manufacturingnews.com/news/07/1017/art2.html.

Industrial Fabrics Association. "United States of America: Kissel Amendment to Protect Domestic Textile & Apparel Sector." Fibre2fashion.com, February 7, 2009. http://www.fibre2fashion.com/news/printstory.asp?news_id=68865.

Petroleum Economist. "Oil Majors Open Their Wallets," March 16, 2011.

Recovery.gov. "The Recovery Act," n.d. http://www.recovery.gov/About/Pages/The_Act.aspx (accessed April 25, 2011).

U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). "Gross Domestic Product and Corporate Profits (March 22)." Washington, DC, 2010. http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm.

USDOC. BEA. "Survey of Current Business," January 2010.

Valve Magazine. "Valve Shipments Up in 2010, with More Growth Predicted for 2011." News release, February 22, 2011.

———. “Market Focus: Industrial Valve Forecast.” Spring 2011.

Wells Fargo Securities. “Weekly Economic & Financial Commentary: Global Growth Continues,” March 18, 2011.

Transportation Equipment[1]

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

Change from 2009 to 2010:

U.S. trade deficit: Increased by $38.8 billion (678 percent) to $44.5 billion
U.S. exports: Increased by $28.3 billion (15 percent) to $222.4 billion
U.S. imports: Increased by $67.1 billion (34 percent) to $266.9 billion

In 2010, the growth in U.S. imports of transportation equipment far exceeded the growth in U.S. exports, resulting in a sevenfold increase in the trade deficit in these products (table TE.1). Increased trade in this sector partially reflects the impact of the recovering global economy.[2] Trade in motor vehicles and parts, particularly between NAFTA partners, accounted for the largest portion of the increase in both imports and exports of transportation equipment in 2010. The motor vehicle industry—which is highly integrated throughout North America—is recovering from low levels of production in 2008 and 2009.[3] Aircraft, spacecraft, and related equipment and aircraft engines and turbines were the only industries in which both imports and exports declined.

U.S. Exports

The increase in U.S. exports of transportation equipment is principally attributed to growing exports of motor vehicles and motor vehicle parts, which rose in value by 36 percent and 37 percent, respectively. Canada remained the largest market for U.S. transportation equipment, accounting for 26 percent of U.S. exports in 2010, followed by

Mexico (10 percent), and China (6 percent). U.S. exports to Canada, Mexico, and China rose by 29 percent, 34 percent, and 36 percent, respectively, and were the leading drivers of the increase in exports in 2010. Principal exports to Canada and Mexico were motor vehicles and parts, reflecting the integrated nature of the motor vehicle industry in North America. The majority of exports to China were aircraft, spacecraft, and parts, as China continues to add aircraft to its fleet to serve the growing demand of its increasingly wealthy population.[4]

Despite a decrease in exports of $3.8 billion (5 percent) in 2010, the U.S. aircraft, spacecraft, and parts product group continued to account for the largest share of sector exports (33 percent), principally owing to the strength of Boeing, one of the two leading large civil aircraft producers in the world (table TE.2). The decline in aircraft exports

[1] Transportation equipment includes motor vehicles, trailers, semi-trailers, and parts; aircraft, spacecraft, and related equipment; ships, boats, and similar vessels; rail locomotives and rolling stock; motorcycles, all-terrain vehicles, and similar vehicles; forklift trucks and similar industrial vehicles; construction and mining equipment; turbines; motors and engines; batteries; and ball and roller bearings.
[2] IMF, "World Economic Outlook: Recovery, Risk, Rebalancing," October 2010; NBER, "Business Cycle Dating Committee," September 20, 2010.
[3] Transportation Topics, "U.S. 2010 Automobile Sales Rise 11%," January 6, 2011.
[4] Leung and Pomfret, "Boeing Sees China Driving Asia Aircraft Demand," March 8, 2011.

TABLE TE.1 Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	64,493	69,460	63,980	44,447	57,243	12,797	28.8
Mexico	19,978	21,309	21,572	16,804	22,528	5,723	34.1
Japan	9,620	10,605	10,693	7,095	7,535	441	6.2
Germany	11,171	13,333	16,196	11,659	11,312	-347	-3.0
China	9,020	11,077	9,659	9,193	12,519	3,326	36.2
France	7,696	9,237	8,364	9,161	7,677	-1,484	-16.2
United Kingdom	8,460	10,379	11,072	8,208	8,818	610	7.4
Korea	5,034	5,217	4,304	3,238	4,704	1,466	45.3
Brazil	5,656	7,248	9,108	6,407	7,205	799	12.5
Australia	5,403	5,502	6,613	4,491	5,918	1,427	31.8
All other	72,243	87,108	95,955	73,380	76,943	3,564	4.9
Total	218,773	250,475	257,516	194,082	222,403	28,321	14.6
EU-27	45,180	55,680	59,168	44,357	41,916	-2,441	-5.5
OPEC	17,703	18,554	23,304	18,164	17,730	-434	-2.4
Latin America	34,932	39,569	43,810	34,594	41,802	7,208	20.8
Asia-Saharan Africa	4,616	5,419	6,791	4,969	5,330	361	7.3
U.S. imports for consumption:							
Canada	76,816	77,823	63,547	43,301	58,922	15,621	36.1
Mexico	49,105	51,023	48,042	37,697	57,439	19,743	52.4
Japan	71,523	69,898	65,731	40,241	52,674	12,433	30.9
Germany	31,304	32,931	31,252	20,809	27,458	6,649	32.0
China	8,656	10,185	10,837	8,553	11,850	3,297	38.5
France	9,463	11,257	11,404	9,478	10,588	1,110	11.7
United Kingdom	12,403	11,375	11,008	7,690	9,367	1,678	21.8
Korea	13,273	12,587	11,315	9,059	11,397	2,339	25.8
Brazil	4,485	4,126	4,898	2,066	2,221	155	7.5
Australia	710	621	1,449	548	502	-46	-8.3
All other	26,523	28,553	29,214	20,367	24,527	4,160	20.4
Total	304,262	310,378	288,697	199,808	266,946	67,138	33.6
EU-27	70,056	73,281	70,232	48,048	59,848	11,801	24.6
OPEC	176	95	55	25	35	11	43.8
Latin America	54,625	56,216	53,852	40,391	60,576	20,185	50.0
Asia	98,918	98,805	94,340	63,267	82,566	19,299	30.5
Sub-Saharan Africa	589	670	2,052	1,549	1,713	163	10.5

See footnote(s) at end of table.

TABLE TE.1 Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-12,323	-8,363	433	1,146	-1,679	-2,825	[a]
Mexico	-29,128	-29,715	-26,470	-20,892	-34,912	-14,019	-67.1
Japan	-61,903	-59,293	-55,038	-33,146	-45,138	-11,992	-36.2
Germany	-20,133	-19,597	-15,056	-9,150	-16,146	-6,996	-76.5
China	364	892	-1,178	640	669	29	4.5
France	-1,767	-2,019	-3,040	-317	-2,911	-2,594	-817.2
United Kingdom	-3,943	-997	64	518	-549	-1,067	[a]
Korea	-8,240	-7,370	-7,011	-5,821	-6,694	-873	-15.0
Brazil	1,172	3,122	4,210	4,341	4,985	644	14.8
Australia	4,693	4,881	5,164	3,944	5,416	1,473	37.3
All other	45,720	58,555	66,740	53,012	52,416	-596	-1.1
Total	-85,489	-59,903	-31,181	-5,726	-44,543	-38,817	-677.9
EU-27	-24,876	-17,601	-11,064	-3,691	-17,933	-14,242	-385.8
OPEC	17,527	18,459	23,248	18,139	17,695	-444	-2.4
Latin America	-19,693	-16,647	-10,041	-5,797	-18,774	-12,977	-223.9
Asia	-59,360	-50,367	-51,284	-27,555	-39,742	-12,187	-44.2
Sub-Saharan Africa	4,027	4,749	4,738	3,420	3,618	198	5.8

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Not meaningful for purposes of comparison.

TABLE TE.2 Transportation equipment: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010	
						Absolute	Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Motor vehicles (TE009)	44,437	52,739	56,898	35,963	48,940	12,977	36.1
Certain motor-vehicle parts (TE010)	33,346	34,052	30,985	22,713	31,194	8,482	37.3
Decreases:							
Aircraft, spacecraft, and related equipment (TE013)	64,374	73,406	69,516	77,700	73,949	-3,750	-4.8
All other	76,616	90,278	100,116	57,707	68,319	10,612	18.4
Total	218,773	250,475	257,516	194,082	222,403	28,321	14.6
U.S. IMPORTS:							
Increases:							
Motor vehicles (TE009)	159,537	158,895	142,541	94,348	132,471	38,123	40.4
Certain motor-vehicle parts (TE010)	53,307	55,619	49,190	35,296	51,903	16,607	47.1
Aircraft, spacecraft, and related equipment (TE013)	17,557	21,835	21,539	18,339	18,931	592	3.2
All other	73,860	74,029	75,427	51,824	63,640	11,816	22.8
Total	304,262	310,378	288,697	199,808	266,946	67,138	33.6

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

reflects both the long lead time required to construct an aircraft and forgone purchases during the economic recession of 2008–09.[5]

U.S. Imports

The growth in U.S. imports of transportation equipment was largely shaped by increased imports of motor vehicles and motor vehicle parts which, collectively, rose by $54.7 billion (42 percent) and accounted for 69 percent of total sector imports in 2010. Increased consumer confidence and improving credit conditions likely facilitated the rise in purchases of motor vehicles, which in turn fueled demand for motor vehicle parts.[6] Canada, Mexico, and Japan continued to be the largest sources of sector imports, accounting for 64 percent of 2010 imports and posting increases of 36 percent, 31 percent, and 52 percent, respectively, from 2009. Motor vehicles and motor vehicle parts accounted for the largest shares of sector imports from all three countries.

[5] GAMA, "General Aviation Manufacturers Association," 2010.
[6] USDOC, ITA, *The Road Ahead 2010*, 2010; USDOC, ITA, *The Road Ahead 2011,* 2011.

Motor Vehicles[1]

David Coffin
(202) 205-2232
David.Coffin@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $25.1 billion (43 percent) to $83.5 billion
U.S. exports: Increased by $13.0 billion (36 percent) to $48.9 billion
U.S. imports: Increased by $38.1 billion (40 percent) to $132.5 billion

The $38.1 billion increase in U.S. imports of motor vehicles in 2010 outpaced the $13.0 billion growth in U.S. exports, leading to a $25.1 billion increase in the U.S. trade deficit in motor vehicles (table TE.3). The expansion in both U.S. imports and exports primarily reflects the recovery of the U.S.[2] and global economy.[3] Although the U.S. motor vehicle market has not fully returned to pre-recession levels, it did rebound significantly. This trend is likely because of the economic recovery, which led companies to make purchases that they had postponed in 2009, expanded access to credit for companies and consumers, and increased consumer confidence.[4]

U.S. Exports

U.S. exports of motor vehicles grew by $13.0 billion (36 percent) to $48.9 billion in 2010, as global economic growth translated into increasing motor vehicle demand in other countries, especially Canada, Japan, and Mexico. U.S. production of motor vehicles grew by 35 percent in 2010 (from 5.7 million units in 2009 to 7.8 million units in 2010).[5] U.S. exports of passenger cars and light trucks led the growth in U.S. exports of motor vehicles, with an increase of $11.5 billion (37 percent) in 2010 to $42.5 billion. The largest increases were in exports of midsize and large gasoline-engine-powered passenger vehicles, which rose $5.5 billion and $4.6 billion, respectively. Approximately two-thirds of U.S. light vehicle assembly plants produced at least some vehicles that fit in one of these two categories, which include sport-utility vehicles (SUVs).[6]

Canada, Germany, and Mexico are the three largest markets for U.S. exports of motor vehicles. Canada remained the leading U.S. export market, taking 44 percent of U.S. motor vehicle exports. U.S. exports to Canada increased by $5.6 billion (36 percent) in 2010 to $21.5 billion. Mexico remained the third-largest U.S. export market, with U.S. exports rising by $905 million (40 percent) to $3.2 billion. The motor vehicle industries in Canada and Mexico, both NAFTA partners, are highly integrated with that of the United States.[7] By contrast, U.S. exports to Germany declined by $660 million

[1] This industry/commodity group includes cars, trucks, vans, buses, road tractors for semitrailers, chassis fitted with engines, and bodies for vehicles.
[2] NBER, "Business Cycle Dating Committee," September 20, 2010.
[3] IMF, "World Economic Outlook: Recovery, Risk and Rebalancing," October 2010.
[4] USDOC, ITA, *The Road Ahead 2010,* 2010; USDOC, ITA,*The Road Ahead 2011,* 2011.
[5] OICA, World Motor Vehicle Production by Country and Type 2009–2010 (provisional), (accessed March 22, 2011).
[6] Binder, *Ward's Automotive Yearbook,* 2010.
[7] Canis and Yacobucci, *The U.S. Motor Vehicle Industry,* March 26, 2010.

TABLE TE.3 Motor vehicles (TE009): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
Canada	22,936	25,135	22,320	15,806	21,453	5,647	35.7
Japan	433	463	581	293	376	84	28.6
Mexico	3,990	4,504	4,503	2,255	3,160	905	40.1
Germany	4,881	5,853	7,903	4,621	3,961	-660	-14.3
Korea	151	337	333	134	362	228	169.8
United Kingdom	997	1,098	1,089	590	967	377	64.0
China	562	694	946	951	3,105	2,154	226.6
Saudi Arabia	1,887	1,850	3,044	1,808	2,998	1,190	65.8
South Africa	327	455	417	160	304	144	90.3
United Arab Emirates	1,089	1,300	2,228	946	1,437	491	51.9
All other	7,183	11,052	13,534	8,400	10,818	2,418	28.8
Total	44,437	52,739	56,898	35,963	48,940	12,977	36.1
EU-27	7,594	10,322	12,271	6,170	6,122	-48	-0.8
OPEC	4,894	5,414	7,837	4,649	6,543	1,894	40.7
Latin America	5,634	6,674	6,649	3,743	5,646	1,904	50.9
Asia	1,489	2,128	2,690	2,767	5,554	2,787	100.7
Sub-Saharan Africa	721	1,265	2,060	1,386	1,702	316	22.8
U.S. imports for consumption:							
Canada	48,623	47,606	37,071	25,108	37,133	12,025	47.9
Japan	44,609	44,965	42,407	24,818	33,142	8,323	33.5
Mexico	23,548	23,300	22,205	18,628	27,763	9,135	49.0
Germany	20,953	22,353	20,586	12,256	18,553	6,297	51.4
Korea	9,104	8,792	7,853	6,473	6,939	466	7.2
United Kingdom	5,031	4,209	4,016	2,274	3,423	1,149	50.5
China	9	21	41	31	54	23	76.4
Saudi Arabia	0	0	[a]	0	0	0	0.0
South Africa	341	453	1,831	1,378	1,533	155	11.2
United Arab Emirates	[a]	0	0	[a]	[a]	[a]	1,609.1
All other	7,317	7,196	6,532	3,382	3,931	549	16.2
Total	159,537	158,895	142,541	94,348	132,471	38,123	40.4
EU-27	32,883	33,701	30,250	17,373	25,588	8,216	47.3
OPEC	[a]	[a]	[a]	[a]	[a]	[a]	320.4
Latin America	23,716	23,340	22,210	18,632	27,781	9,149	49.1
Asia	53,725	53,781	50,304	31,323	40,136	8,814	28.1
Sub-Saharan Africa	341	453	1,831	1,378	1,533	155	11.2

See footnote(s) at end of table.

TABLE TE.3 Motor vehicles (TE009): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
Canada	-25,687	-22,471	-14,751	-9,302	-15,680	-6,377	-68.6
Japan	-44,175	-44,502	-41,826	-24,526	-32,765	-8,240	-33.6
Mexico	-19,557	-18,796	-17,701	-16,373	-24,603	-8,230	-50.3
Germany	-16,072	-16,500	-12,683	-7,635	-14,592	-6,957	-91.1
Korea	-8,954	-8,456	-7,520	-6,339	-6,577	-239	-3.8
United Kingdom	-4,034	-3,111	-2,926	-1,685	-2,456	-772	-45.8
China	553	672	905	920	3,051	2,131	231.6
Saudi Arabia	1,887	1,850	3,044	1,808	2,998	1,190	65.8
South Africa	-15	1	-1,414	-1,218	-1,229	-11	-0.9
United Arab Emirates	1,089	1,300	2,228	946	1,437	491	51.9
All other	-134	3,856	7,002	5,018	6,886	1,868	37.2
Total	-115,100	-106,155	-85,642	-58,386	-83,531	-25,145	-43.1
EU-27	-25,289	-23,378	-17,979	-11,203	-19,467	-8,264	-73.8
OPEC	4,894	5,414	7,836	4,649	6,543	1,894	40.7
Latin America	-18,082	-16,666	-15,561	-14,890	-22,135	-7,245	-48.7
Asia	-52,236	-51,653	-47,614	-28,556	-34,582	-6,026	-21.1
Sub-Saharan Africa	380	812	229	8	169	161	2,105.4

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.

(14 percent) to less than $4.0 billion, which is just over one-half of the 2008 peak of $7.9 billion. Declining market conditions in Germany contributed to a 23.4 percent reduction in new passenger car registrations and a 16.3 percent drop in German- brand vehicle imports—particularly BMW SUVs manufactured in South Carolina.[8]

U.S. exports of motor vehicles to China more than tripled in 2010 to $3.1 billion, partly as a result of growth in the Chinese motor vehicle market, which in 2009 became the largest in the world.[9] Most of the increase occurred in midsize and large passenger vehicles, exports of which grew by $1.9 billion (241 percent) to $2.7 billion in 2010.

U.S. Imports

Increased U.S. imports of motor vehicles were likely driven by the economic recovery, which translated into greater consumer access to financing in 2010.[10] Although the U.S. light vehicle market grew 11 percent by volume in 2010, domestic imports remained below the annual levels of 2006–08.[11] Collectively, imports of midsize and large gasoline-engine-powered passenger vehicles—which represented both the largest import growth categories and accounted for the largest value share of motor vehicles—grew by $34.1 billion.

Canada, Mexico, and Japan are the primary suppliers of U.S. imports of motor vehicles. Although the value of U.S. imports from Canada increased 48 percent in 2010, import levels remained $11.5 billion below the five-year high of $48.6 billion in 2006. On the other hand, U.S. imports from Mexico—principally midsize gasoline-engine-powered passenger vehicles and light trucks—reached a five-year high due to a $9.1 billion (49 percent) increase in 2010. U.S. manufacturers have increasingly relied upon Mexico's relatively low-cost labor to produce these vehicles as U.S. demand for these goods has risen in recent years.[12] In 2010, Mexican motor vehicle production increased by 784,000 (50 percent) to 2.3 million vehicles.[13] U.S. imports of motor vehicles from Japan increased by $8.3 billion (34 percent) to $33.1 billion in 2010, as Japanese motor vehicle production increased by 1.7 million units (21 percent) to 9.6 million units.[14]

[8] VDA, Annual Figures: New Registrations (accessed May 13, 2011). Automobile exports from South Carolina represent a large share of overall U.S. exports of motor vehicles to Germany; passenger vehicle exports to Germany from the United States, excluding South Carolina, actually increased. GTIS, World Trade Statistics (accessed March 21, 2011); Automotive World, "OEM Tracker: BMW Group," (accessed March 21, 2011).

[9] *Bloomberg News*, "China Ends U.S.'s Reign as Largest Auto Market," January 11, 2010.

[10] During the economic recession, credit to purchase new cars was difficult to acquire, and consumers delayed buying durable goods (such as passenger cars). USDOC, ITA, *The Road Ahead 2010,* 2010.

[11] Ward's Automotive Reports, "Ward's U.S. Light-Vehicle Sales by Brand and Group—December 2010," January 10, 2011.

[12] Pope, "Mexico Auto Industry Poised for Growth in 2010," March 18, 2010.

[13] OICA, World Motor Vehicle Production by Country and Type 2009–2010 (provisional) (accessed March 22, 2011).

[14] OICA, World Motor Vehicle Production by Country and Type 2009–2010 (provisional) (accessed March 22, 2011).

Bibliography: Transportation Equipment

Automotive World. "OEM Tracker: BMW Group." http://www.automotiveworld.com/oem-tracker/bmw-group/page/154 (accessed March 21, 2011). (fee required).

Binder, Alan K., ed. *Ward's Automotive Yearbook.* Ward's Automotive Group, 2010.

Bloomberg News. "China Ends U.S.'s Reign as Largest Auto Market," January 11, 2010. http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aE.x_r_l9NZE.

Canis, Bill, and Brent D. Yacobucci. *The U.S. Motor Vehicle Industry: Confronting a New Dynamic in the Global Economy.* Congressional Research Service, March 26, 2010.

General Aviation Manufacturers Association (GAMA). *General Aviation Statistical Databook & Industry Outlook 2010.* http://www.gama.aero/files/GAMA_DATABOOK_2011_web.pdf.

Global Trade Information Service, Inc. (GTIS). World Trade Statistics.

International Monetary Fund (IMF). *World Economic Outlook: Recovery, Risk, and Rebalancing.* World Economic Outlook Update, October 2010. http://www.imf.org/external/pubs/ft/weo/2010/02/index.htm.

International Organization of Motor Vehicle Manufacturers (OICA). World Motor Vehicle Production by Country and Type 2009-2010 (provisional). http://oica.net/wp-content/uploads/all-vehicles-2010-provisional.pdf (accessed March 22, 2011).

Leung, Alison and James Pomfret. "Boeing Sees China Driving Asia Aircraft Demand." Reuters, March 8, 2011. http://uk.reuters.com/article/2011/03/08/uk-boeing-idUKTRE7270PC20110308.

National Bureau of Economic Research (NBER). "Business Cycle Dating Committee, National Bureau of Economic Research." News release, September 20, 2010. http://www.nber.org/cycles/sept2010.html.

Pope, Byron. "Mexico Auto Industry Poised for Growth in 2010." *Ward's Automotive Reports,* March 18, 2010. http://wardsauto.com/ar/mexico_auto_growth_100318/.

Thormahlen, Casey. "Financing will Fuel the Rebound in New Car Sales." IBISworld, March 2011. http://www.ibisworld.rsvp1.com/newsletter/issues/us/11Mar/news.aspx?.

Transport Topics. "U.S. 2010 Automobile Sales Rise 11%." January 6, 2011. http://www.ttnews.com/articles/basetemplate.aspx?storyid=25858.

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). *The Road Ahead 2010,* 2010.

http://trade.gov/wcm/groups/internet/documents/web_content/auto_report_roadahead2010.pdf.

———. *The Road Ahead 2011,* 2011. http://trade.gov/static/2011RApt1FINAL.pdf.

Ward's Automotive Reports. "Ward's U.S. Light-Vehicle Sales by Brand and Group—December 2010," January 10, 2011.

———. "Ward's North America Production by Plant—December 2010," January 31, 2011.

Textiles, Apparel, and Footwear

Textiles and Apparel

Andrea Boron
(202) 205-3433
andrea.boron@usitc.gov

Change in from 2009 to 2010:

U.S. trade deficit: Increased by $10.9 billion (14 percent) to $86.8 billion
U.S. exports: Increased by $2.7 billion (18 percent) to $17.4 billion
U.S. imports: Increased by $13.6 billion (15 percent) to $104.2 billion

In 2010, the U.S. trade deficit in textiles and apparel rose to $86.8 billion, the result of a substantial increase in U.S. imports that was only partially offset by a small increase in U.S. exports (table TX.1). The increase in trade reflects overall economic recovery and growth, as trade returned roughly to pre-recession (2007–08) levels. Consumer spending on clothing and footwear grew by 5 percent in 2010; this increase in consumer demand contributed to increased imports, which supply a large percentage of the U.S. market for textiles and apparel. In 2010, imports of shirts and blouses, robes, nightwear, and underwear, and trousers together accounted for the largest share (44 percent) of U.S. textile and apparel imports, increasing by 12 percent to $46.4 million (table TX.2). Fibers, yarns, and fabric were the leading textile and apparel exports, increasing by 23 percent from $8.4 billion in 2009 to $10.3 billion in 2010.[1]

The United States continued to register a trade deficit with most major trading partners in this sector. Notably, the trade deficit with China increased by $6.8 billion in 2010 (20 percent) to $41.0 billion. The trade deficit with Asia as a whole increased 17 percent in 2010 and accounted for $75.0 billion (86 percent) of the total U.S. trade deficit in this sector. There was only one major exception, the United States registered a $1.2 billion trade surplus in textiles and apparel with its second-largest export market, Canada. The United States maintained a trade surplus with Canada in this sector in every year during 2006–10.

U.S. Exports

U.S. exports of textiles and apparel increased by $2.7 billion (18 percent) to $17.4 billion in 2010. The top U.S. export markets for textiles and apparel are partner countries under the North American Free Trade Agreement (NAFTA) and the United States-Dominican Republic-Central America Free Trade Agreement (DR-CAFTA), which collectively accounted for nearly 60 percent of total U.S. exports in 2010. In addition to preferential duty treatment afforded under NAFTA and DR-CAFTA, these partners benefit from shorter lead times because of their proximity to the U.S. market. Much of the fibers, yarns, and fabric exported under NAFTA and DR-CAFTA re-enter the United States as

[1] Based on official statistics of the U.S. Department of Commerce.

TABLE TX.1 Textiles and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	731	844	940	846	1,083	237	28.0
Mexico	4,551	3,947	3,718	3,109	3,680	570	18.3
Vietnam	33	44	33	37	41	5	13.0
India	101	101	114	114	141	27	23.8
Canada	3,561	3,531	3,645	3,063	3,386	323	10.5
Indonesia	91	99	133	132	113	-19	-14.3
Bangladesh	12	14	21	20	8	-12	-61.2
Honduras	1,416	1,518	1,562	1,073	1,469	396	36.9
Pakistan	27	37	50	55	55	-1	-1.0
Thailand	85	113	118	88	97	8	9.6
All other	7,479	7,287	7,471	6,116	7,279	1,162	19.0
Total	18,088	17,535	17,805	14,653	17,350	2,697	18.4
EU-27	1,899	2,064	2,121	1,666	1,980	315	18.9
OPEC	343	303	400	331	377	46	13.9
Latin America	9,247	8,371	7,997	6,409	7,769	1,360	21.2
Asia	2,522	2,652	2,872	2,517	3,035	518	20.6
Sub-Saharan Africa	141	167	222	199	236	37	18.8
U.S. imports for consumption:							
China	31,284	36,162	36,368	35,083	42,095	7,012	20.0
Mexico	7,497	6,712	5,957	5,177	5,537	360	6.9
Vietnam	3,326	4,503	5,392	5,290	6,177	887	16.8
India	5,568	5,611	5,583	4,991	5,833	842	16.9
Canada	3,395	3,080	2,484	1,972	2,225	253	12.8
Indonesia	4,073	4,413	4,460	4,214	4,858	644	15.3
Bangladesh	3,025	3,216	3,566	3,557	4,104	547	15.4
Honduras	2,535	2,613	2,697	2,133	2,499	366	17.2
Pakistan	3,397	3,308	3,225	2,861	3,166	305	10.7
Thailand	2,623	2,571	2,532	2,011	2,159	148	7.4
All other	37,840	35,489	32,063	23,293	25,547	2,254	9.7
Total	104,563	107,678	104,329	90,581	104,199	13,618	15.0
EU-27	5,988	6,287	5,791	3,972	4,500	528	13.3
OPEC	391	323	238	173	220	47	27.0
Latin America	18,721	17,237	15,938	13,321	14,673	1,352	10.1
Asia	69,796	74,846	74,516	66,826	77,998	11,172	16.7
Sub-Saharan Africa	1,339	1,334	1,184	943	814	-129	-13.7

See footnote(s) at end of table.

TABLE TX.1 Textiles and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-30,553	-35,317	-35,429	-34,237	-41,013	-6,775	-19.8
Mexico	-2,946	-2,765	-2,239	-2,068	-1,857	211	10.2
Vietnam	-3,293	-4,459	-5,359	-5,254	-6,136	-882	-16.8
India	-5,467	-5,510	-5,470	-4,877	-5,692	-815	-16.7
Canada	166	451	1,161	1,091	1,161	69	6.4
Indonesia	-3,982	-4,314	-4,327	-4,082	-4,745	-663	-16.2
Bangladesh	-3,013	-3,202	-3,545	-3,537	-4,096	-559	-15.8
Honduras	-1,118	-1,095	-1,135	-1,060	-1,030	30	2.8
Pakistan	-3,371	-3,271	-3,175	-2,806	-3,111	-305	-10.9
Thailand	-2,537	-2,458	-2,414	-1,923	-2,063	-139	-7.3
All other	-30,361	-28,202	-24,592	-17,176	-18,268	-1,092	-6.4
Total	-86,476	-90,143	-86,523	-75,928	-86,849	-10,921	-14.4
EU-27	-4,089	-4,223	-3,670	-2,307	-2,520	-213	-9.2
OPEC	-48	-20	162	157	156	-1	-0.5
Latin America	-9,475	-8,866	-7,940	-6,912	-6,904	8	0.1
Asia	-67,273	-72,194	-71,644	-64,309	-74,963	-10,655	-16.6
Sub-Saharan Africa	-1,198	-1,167	-961	-744	-577	167	22.4

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

TABLE TX.2 Textiles and apparel: Leading changes in U.S. exports and imports, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. EXPORTS:							
Increases:							
Fibers and yarns, except raw cotton and raw wool (TX001)	3,780	4,041	4,344	3,496	4,444	948	27.1
Coated and other fabrics (TX002D)	1,119	1,213	1,143	925	1,246	321	34.7
Other fabrics (TX002F)	1,392	1,303	1,445	1,248	1,537	290	23.2
Broadwoven fabrics (TX002A)	2,210	1,822	1,630	1,261	1,417	157	12.4
Knit fabrics (TX002B)	1,611	1,659	1,534	891	1,036	145	16.3
All other	7,976	7,498	7,709	6,833	7,670	836	12.2
Total	18,088	17,535	17,805	14,653	17,350	2,697	18.4
U.S. IMPORTS:							
Increases:							
Shirts and blouses (TX005E)	25,073	26,035	24,876	21,962	24,728	2,767	12.6
Robes, nightwear, and underwear (TX005I)	5,478	5,380	5,444	4,683	5,464	781	16.7
Men's and boys' trousers (TX005C)	8,014	7,940	7,626	6,805	7,496	691	10.2
Women's and girls' trousers (TX005D)	9,889	9,872	9,305	8,043	8,663	620	7.7
All other	56,109	58,450	57,077	49,089	57,848	8,759	17.8
Total	104,563	107,678	104,329	90,581	104,199	13,618	15.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

finished garments; thus, demand for U.S. exports of textiles is directly linked to increased U.S. imports of apparel from the same partners (see U.S. imports discussion below).[2]

The United States' top export markets in this sector are Mexico and Canada. U.S. exports to Mexico rose $570 million (18 percent) to $3.7 billion, while U.S. exports to Canada rose $323 million (11 percent) to $3.4 billion. DR-CAFTA partner Honduras was the third-largest U.S. export market for textiles and apparel in 2010. U.S. exports to Honduras increased 37 percent to $1.5 billion; however, exports remained below the pre-recession levels of 2007–08.

U.S. exports in this sector are largely driven by textile articles, which represent 77 percent of all U.S. exports of textiles and apparel. Fibers, yarns, and fabric were the top export products by value, accounting for 60 percent of all sector exports, and were used primarily in the production of finished apparel products. The rise in U.S. exports thus reflects increased shipments of inputs to apparel manufacturers in these countries.

U.S. Imports

U.S. imports of textiles and apparel rose by $13.6 billion (15 percent) to $104.2 billion in 2010. This increase reflects general economic recovery and higher consumer spending and demand for clothing, which is increasingly met with imported garments, rather than domestic production.[3] Personal consumption expenditures on clothing and footwear increased 5 percent in 2010, after a decline during 2009.[4] This trend was also echoed in increased apparel retail sales throughout 2010.[5] In addition, as demand for clothing grew in 2010, retailers began to rebuild inventories that had been depleted during the recession.[6] The rise in U.S. imports was the effect of higher volumes, not higher prices. U.S. imports of textiles and apparel by quantity, or square meter equivalent (SME), grew by 19 percent in 2010, whereas the average unit value per SME of all U.S. imports of textiles and apparel fell from $1.74 in 2009 to $1.68 in 2010.[7]

U.S. imports from Asia as a whole rose by $11.2 billion, which represented 82 percent of the total increase in U.S. imports of textiles and apparel in 2010. The U.S. market imported $78.0 billion of textiles and apparel from all Asian producers combined, led by China, Vietnam, India, Indonesia, Bangladesh, Pakistan, and Thailand. China remained by far the largest supplier of textiles and apparel to the U.S. market, accounting for 40 percent of total U.S. imports in 2010.

U.S. imports from most other suppliers likewise increased in 2010. Imports from Mexico rose by 7 percent to $5.5 billion, while those from Canada rose by 13 percent to $2.2 billion. U.S. imports from Honduras and the DR-CAFTA region as a whole also increased by 17 percent and 14 percent, respectively. In contrast, imports from sub-Saharan Africa fell by $129 million (14 percent) during the period. Much of this decrease

[2] The rules of origin for apparel under NAFTA and DR-CAFTA require that garments assembled in partner countries use U.S. or regional yarns and fabric to qualify for duty-free treatment into the U.S. market.

[3] A 2008 CBO estimate notes that from 2003 to 2007, the import penetration rate for apparel grew from 66 to 73 percent. CBO, "Factors Underlying the Decline in Manufacturing Employment since 2000," December 28, 2008, 4.

[4] USDOC, BEA, "Table 2.4.5U: Personal Consumption Expenditures by Type of Product," March 23, 2011.

[5] Census, "Monthly Retail Trade and Food Services: Clothing Stores (4481)," March 14, 2010.

[6] Ellis, "Industry Imports Reach Record Levels in 2010," February 11, 2011.

[7] OTEXA, "Major Shippers Report," March 22, 2011.

was the result of declining imports from Madagascar, formerly a significant supplier in the region; [8] Madagascar lost its trade preferences under the African Growth and Opportunity Act in December 2009.[9]

In contrast to U.S. exports, U.S. imports of textiles and apparel are largely composed of apparel, which represented three-fourths of all U.S. sector imports in 2010. Commodity apparel items (trousers, shirts, and blouses)[10] accounted for $41.0 billion (52 percent) of all U.S. imports of apparel, an increase of 11 percent from 2009.

Employment Trends

Employment in the U.S. textile and apparel sector declined throughout 2006–10, falling 33 percent to 395,500 workers for a loss of 198,600 jobs.[11] With increasing import competition following the final phaseout of developed country quotas on January 1, 2005, the U.S. textile and apparel industry has undergone extensive restructuring and consolidation.[12] However, during the recent recession as retailers were operating with slim inventories, some relied on domestic apparel producers for quick-turnaround items.[13] While this development is not likely to reverse the job losses of the past several years, the trend to source domestically for quick lead times has slowed the rate of job losses in the apparel sector; monthly employment numbers have been stabilizing and increased slightly in the last quarter of 2010.[14]

[8] U.S. imports from Madagascar decreased from $212 million to $54 million during 2009–10. OTEXA, "Major Shippers Report," March 22, 2011.

[9] Proclamation No. 8468,74 Fed. Reg. 69229 (December 23, 2009).

[10] Commodity apparel are high-volume basic garments that have reasonably predictable consumer demand and few styling changes.

[11] Compiled from official statistics of the U.S. Department of Labor.

[12] On January 1, 2005, the United States, the EU, and Canada eliminated their remaining quotas on imports from WTO countries as required by the Uruguay Round Agreement on Textiles and Clothing (ATC). The ATC entered into force with the WTO agreements in 1995. It called for the gradual elimination of quotas established under the Multifiber Arrangement, an arrangement negotiated under the General Agreement on Tariffs and Trade (GATT) that had governed world textile and apparel trade since 1974. The ATC required countries to increase the rate at which all quotas grew and integrate textile and apparel articles into the GATT regime over a 10-year transition period, which ended on January 1, 2005. At that point, the articles were brought under GATT discipline and became subject to the same rules as products of other sectors. Safeguard quotas were placed on selected textile and apparel imports from China after the overall end of quotas in 2005 through December 2008. However, after the safeguard quotas expired, U.S. manufacturers again became vulnerable to competition from China for these goods.

[13] Ellis et al, "U.S. Apparel Manufacturing Showing Signs of Life," January 10, 2011.

[14] BLS, Employment, Hours, and Earnings (accessed May 3, 2011).

Footwear

Andrea Boron
(202) 205-3433
andrea.boron@usitc.gov

Change from 2009 to 2010:

U.S. trade deficit: Increased by $2.9 billion (17 percent) to $20.0 billion
U.S. exports: Increased by $0.1 billion (17 percent) to $728 million
U.S. imports: Increased by $3.0 billion (17 percent) to $20.7 billion

In 2010, the U.S. trade deficit in footwear increased by 17 percent to $20.0 billion as imports increased by 17 percent to $20.7 billion (table TX.3). Imports supply nearly 99 percent of the U.S. footwear market.[15] China was by far the United States' largest supplier, accounting for 76 percent of all U.S. footwear imports and 78 percent of the total U.S. trade deficit. Vietnam and Italy were the second- and third-largest suppliers to the U.S. market; U.S. imports from these countries increased by 22 and 16 percent, respectively. U.S. exports, though much smaller in comparison, also increased in 2010 by 17 percent to $728 million.

Trade in 2010 returned to pre-recession levels, following a decline in 2009. The increase in trade can be attributed to higher consumer spending as the U.S. economy emerged from recession. As the U.S. economy recovered, personal consumption expenditures on clothing and footwear grew 5 percent in 2010, following a decline during 2009.[16] Sales of women's fashion footwear, in particular, increased steadily in 2010, leading an overall recovery in sales in the sector.[17] According to industry sources, trends in lightweight running shoes, toning and shaping footwear, and fashion boots helped boost consumer sales in footwear.[18] Sales of women's boots posted the highest growth rate in fashion footwear, increasing by 21 percent in 2010.[19]

U.S. Exports

U.S. footwear exports increased by $107 million (17 percent) to $728 million in 2010. Much of the increase can be attributed to the global economic recovery. Reportedly, men's footwear (excluding athletic shoes) and rubber and plastic footwear are the largest industry segments, accounting for nearly 75 percent of the domestic industry's revenue.[20] Footwear parts, including removable insoles, heel cushions, and gaiters made up a quarter of U.S. exports in 2010.[21] In many cases, U.S. exports of footwear parts and materials are assembled into final goods overseas.

[15] AAFA "ShoeStats 2010," November 2010. 1.
[16] USDOC, BEA, "Table 2.4.5U: Personal Consumption Expenditures," March 23, 2011.
[17] NPD Group, "NPD Reports Women and Fashion Footwear Lead the Charge into Positive Territory," June 22, 2010.
[18] Denton, "Footwear Execs Rate 2010," December 29, 2010.
[19] NPD Group, "NPD Reports U.S. Fashion Footwear Industry Rebounds in 2010," February 8, 2011.
[20] IBISWorld, "Footwear Manufacturing in the US 31621," February 2011, 13.
[21] Compiled from official statistics of the U.S. Department of Commerce.

TABLE TX.3 Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. exports of domestic merchandise:							
China	57	38	35	44	55	11	25.4
Vietnam	34	25	26	25	47	22	89.0
Italy	8	8	6	6	4	-2	-31.0
Indonesia	10	11	8	6	7	2	27.4
Mexico	47	44	79	63	79	17	26.8
Brazil	2	3	4	1	2	(a)	24.8
Dominican Rep	19	23	27	22	23	1	3.8
India	7	4	6	5	4	-1	-27.5
Canada	73	78	86	83	87	4	4.6
Thailand	4	3	3	1	1	(a)	9.2
All other	312	342	393	364	418	54	14.8
Total	573	578	673	620	728	107	17.3
EU-27	60	65	68	53	56	3	6.2
OPEC	32	32	45	32	37	5	14.9
Latin America	140	146	194	176	218	42	23.8
Asia	238	214	238	229	287	58	25.6
Sub-Saharan Africa	21	28	32	34	29	-5	-15.8
U.S. imports for consumption:							
China	13,795	14,090	14,444	13,415	15,727	2,311	17.2
Vietnam	952	1,032	1,212	1,323	1,616	293	22.2
Italy	1,110	1,200	1,127	771	896	126	16.3
Indonesia	471	383	408	446	593	147	32.9
Mexico	274	248	255	254	319	65	25.4
Brazil	896	758	518	382	360	-23	-5.9
Dominican Rep	129	119	134	121	167	46	37.7
India	155	164	188	164	180	15	9.3
Canada	79	76	77	66	66	1	0.8
Thailand	293	257	244	156	128	-28	-18.2
All other	884	945	844	567	658	92	16.1
Total	19,038	19,270	19,451	17,666	20,710	3,044	17.2
EU-27	1,700	1,776	1,586	1,090	1,278	188	17.3
OPEC	1	1	1	1	1	(a)	40.9
Latin America	1,317	1,148	931	780	871	91	11.7
Asia	15,852	16,180	16,766	15,658	18,414	2,756	17.6
Sub-Saharan Africa	4	5	2	1	1	(a)	15.9

See footnote(s) at end of table.

TABLE TX.3 Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2006–10—*Continued*

Item	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
	Million dollars						
U.S. merchandise trade balance:							
China	-13,738	-14,052	-14,409	-13,371	-15,671	-2,300	-17.2
Vietnam	-917	-1,007	-1,186	-1,298	-1,569	-271	-20.9
Italy	-1,102	-1,192	-1,120	-765	-892	-128	-16.7
Indonesia	-461	-371	-399	-440	-586	-145	-33.0
Mexico	-227	-204	-176	-191	-239	-48	-25.0
Brazil	-894	-755	-514	-381	-358	23	6.0
Dominican Rep	-110	-97	-107	-99	-144	-45	-45.3
India	-148	-160	-182	-159	-176	-17	-10.5
Canada	-6	2	9	18	21	3	18.9
Thailand	-289	-253	-241	-156	-127	29	18.3
All other	-573	-603	-451	-202	-240	-38	-18.6
Total	-18,465	-18,692	-18,778	-17,046	-19,982	-2,937	-17.2
EU-27	-1,640	-1,711	-1,518	-1,037	-1,222	-185	-17.9
OPEC	31	31	45	32	36	5	14.3
Latin America	-1,176	-1,002	-737	-604	-653	-49	-8.1
Asia	-15,614	-15,966	-16,528	-15,429	-18,127	-2,697	-17.5
Sub-Saharan Africa	17	23	30	33	27	-6	-17.0

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

Note: Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. See appendix B for country group definitions. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in 2010.

[a]Less than $500,000.

NAFTA partners Canada and Mexico were the top export markets for U.S. producers; these countries accounted for 12 percent and 11 percent of U.S. exports of footwear by value in 2010. Other important markets for U.S. footwear exports in 2010 were Japan, Korea, China, Vietnam, and Hong Kong.[22]

U.S. Imports

China remained the largest supplier to the U.S. market. U.S. imports from China increased by $2.3 billion (17 percent) in 2010, and the increase accounted for 76 percent of the total increase in U.S. imports of footwear. Vietnam was the second-largest supplier, providing $1.6 billion (8 percent) of U.S. footwear imports. Vietnam is becoming an increasingly important source of these goods, as there are over 700 companies in the country's footwear sector and the industry exports approximately 90 percent of its output.[23] U.S. imports from Vietnam grew by 70 percent during 2006–10 and by 22 percent in 2010 alone. Reportedly, Vietnam's main export items are sandals and sports, canvas, and leather shoes.[24] Chinese imports and to a lesser extent Vietnamese ones, dominate the U.S. footwear market due to low input and labor costs that keep their production costs down. Italy, the third-largest source of U.S. footwear imports, accounted for 4 percent of all U.S. imports by value in 2010. In contrast to Asian suppliers, Italy specializes in high-end, fashion footwear that can command a premium for its "Made in Italy" label.[25]

[22] Compiled from official statistics of the U.S. Department of Commerce. These markets do not appear in table TX.3 because the table was generated based on U.S. imports, which far exceed U.S. exports.

[23] Business-in-Asia.com, "Can Vietnam Regain Its Strength?" March 25, 2011.

[24] Business-in-Asia.com, "Can Vietnam Regain Its Strength?" March 25, 2011.

[25] IBISWorld, "Footwear Manufacturing in the US 31621," February 2011, 16.

Bibliography: Textiles, Apparel, and Footwear

American Apparel & Footwear Association (AAFA). "ShoeStats 2010," November 2010. http://www.apparelandfootwear.org, November 2010.

BLS. See U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS).

Business-in-Asia.com. "Can Vietnam Regain Its Strength in the Footwear Industry?" http://www.business-in-asia.com/vietnam/manufacture_footwear_vn.html (accessed March 25, 2011).

Congressional Budget Office (CBO). "Factors Underlying the Decline in Manufacturing Employment since 2000." Economic and Budget Issue Brief, December 28, 2008.

Denton, Elizabeth. "Footwear Execs Rate 2010." http://www.wwd.com/footwear-news/footwear-execs-rate-2010-3409185?full=true. December 29, 2010.

Ellis, Kristi. "Industry Imports Reach Record Levels in 2010." http://www.wwd.com. February 11, 2011.

Ellis, Kristi, and Liza Casabona, with contributions from Arthur Friedman and Khanh T.L. Tran. "U.S. Apparel Manufacturing Showing Signs of Life. January 10, 2011.

IBISWorld, Inc. "Footwear Manufacturing in the US." *IBISWorld Industry Report 31621*, February 2011.

———. "Textile Mills in the US." *IBISWorld Industry Report 31310*, June 2010.

Just-Style.com. "Madagascar: Loses AGOA benefits." http://www.just-style.com/news/loses-agoa-benefits_id106296.aspx, January 4, 2010.

NPD Group, Inc. "NPD Reports U.S. Fashion Footwear Industry Rebounds in 2010." News release, February 8, 2011. http://www.npd.com/press/releases/press_110208a.html.

———. "NPD Reports Women and Fashion Footwear Lead the Charge into Positive Territory." News release, June 22, 2010. http://www.npd.com/press/releases/press_100622.html.

OTEXA. See U.S. Department of Commerce (USDOC), International Trade Administration, Office of Textiles and Apparel (OTEXA).

U.S. Department of Commerce (USDOC). Bureau of Economic Analysis (BEA). "Table 2.4.5U. Personal Consumption Expenditures by Type of Product," February 24, 2011, http://www.bea.gov/national/index.htm (accessed March 14, 2011).

U.S. Department of Commerce (USDOC). Census Bureau (Census). "Monthly Retail Trade and Food Services: Clothing stores (4481)," 2009 and 2010. http://www.census.gov/retail/ (accessed March 14, 2011).

U.S. Department of Commerce (USDOC). International Trade Administration (ITA). Office of Textiles and Apparel (OTEXA). "Export Market Report." http://www.otexa.ita.doc.gov/scripts/exphist.exe (accessed March 22, 2011).

———. "Major Shippers Report." http://www.otexa.ita.doc.gov/Msrcat.htm (accessed March 22, 2011).

U.S. Department of Labor (USDOL). Bureau of Labor Statistics, (BLS). Employment, Hours, and Earnings from the Current Employment Statistics Survey. http://bls.gov/data/#employment (accessed various dates).

U.S. International Trade Commission (USITC). Interactive Tariff and Trade DataWeb. http://dataweb.usitc.gov/ (accessed various dates).

APPENDIX A
U.S. TRADE BY INDUSTRY GROUP AND SUBGROUP

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG001	Certain miscellaneous animals and meats:							
	Exports	2,055	2,158	2,497	2,308	2,500	192	8.3
	Imports	1,989	2,133	2,054	1,747	1,738	-8	-0.5
	Trade balance	66	25	443	561	762	200	35.7
AG002	Cattle and beef:							
	Exports	1,655	2,156	3,085	2,817	3,872	1,055	37.5
	Imports	4,443	4,844	4,524	3,784	4,314	530	14.0
	Trade balance	-2,788	-2,688	-1,439	-967	-442	526	54.3
AG003	Swine and pork:							
	Exports	2,422	2,710	4,278	3,645	4,003	358	9.8
	Imports	1,451	1,490	1,246	1,020	1,292	272	26.7
	Trade balance	971	1,219	3,032	2,625	2,711	86	3.3
AG004	Sheep and meat of sheep:							
	Exports	30	21	35	34	28	-6	-17.5
	Imports	425	456	446	434	512	78	17.9
	Trade balance	-395	-435	-411	-400	-484	-84	-20.9
AG005	Poultry:							
	Exports	2,588	3,655	4,607	4,297	4,298	1	(a)
	Imports	194	242	256	263	301	37	14.1
	Trade balance	2,395	3,413	4,351	4,034	3,997	-37	-0.9
AG006	Fresh or frozen fish:							
	Exports	2,672	2,706	2,576	2,326	2,649	323	13.9
	Imports	4,555	4,922	5,021	4,880	5,432	552	11.3
	Trade balance	-1,884	-2,217	-2,444	-2,554	-2,783	-229	-9.0
AG007	Canned fish:							
	Exports	224	239	268	251	234	-17	-6.8
	Imports	953	950	1,130	1,090	1,215	125	11.5
	Trade balance	-729	-711	-862	-839	-981	-142	-16.9
AG008	Cured and other fish:							
	Exports	181	178	187	194	229	35	17.9
	Imports	382	394	456	443	468	25	5.6
	Trade balance	-201	-216	-269	-249	-239	10	3.9
AG009	Shellfish:							
	Exports	961	949	1,013	1,035	1,179	144	13.9
	Imports	7,288	7,246	7,379	6,587	7,469	881	13.4
	Trade balance	-6,327	-6,297	-6,366	-5,552	-6,290	-738	-13.3
AG010	Dairy produce:							
	Exports	1,387	2,358	3,188	1,755	3,047	1,292	73.6
	Imports	2,018	2,212	2,516	1,959	1,960	1	(a)
	Trade balance	-630	146	672	-204	1,087	1,291	(b)
AG011	Eggs:							
	Exports	235	293	297	347	358	12	3.3
	Imports	31	43	47	30	40	10	33.3
	Trade balance	204	250	250	317	319	2	0.5

See footnote(s) at end of table.

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG012	Sugar and other sweeteners:							
	Exports	754	1,074	931	829	1,358	529	63.8
	Imports	1,868	1,391	1,748	1,919	2,756	837	43.6
	Trade balance	-1,114	-317	-817	-1,089	-1,398	-309	-28.3
AG012A	Sugar:							
	Exports	188	230	175	137	231	94	68.8
	Imports	1,351	859	1,117	1,246	2,046	800	64.2
	Trade balance	-1,164	-629	-943	-1,109	-1,815	-706	-63.7
AG012B	High fructose corn sweetener:							
	Exports	146	220	254	257	511	254	98.8
	Imports	48	57	82	92	104	12	12.9
	Trade balance	99	163	172	165	407	242	146.8
AG013	Animal feeds:							
	Exports	5,065	6,144	8,467	8,498	9,677	1,179	13.9
	Imports	905	1,084	1,375	1,290	1,472	182	14.1
	Trade balance	4,160	5,060	7,092	7,208	8,204	996	13.8
AG014	Live plants:							
	Exports	188	189	198	190	197	7	3.7
	Imports	564	588	540	487	524	37	7.7
	Trade balance	-376	-399	-342	-297	-327	-30	-10.2
AG015	Seeds:							
	Exports	893	1,051	1,348	1,190	1,292	102	8.6
	Imports	624	692	786	792	813	21	2.6
	Trade balance	269	358	562	398	479	81	20.4
AG016	Cut flowers:							
	Exports	27	37	42	39	37	-3	-6.8
	Imports	768	831	804	768	847	79	10.3
	Trade balance	-741	-794	-762	-728	-810	-82	-11.3
AG017	Miscellaneous vegetable substances:							
	Exports	602	697	786	822	872	50	6.1
	Imports	1,193	1,256	1,407	1,280	1,465	185	14.5
	Trade balance	-592	-559	-622	-458	-593	-135	-29.5
AG018	Fresh, chilled, or frozen vegetables:							
	Exports	1,766	1,902	2,070	2,005	2,179	174	8.7
	Imports	4,310	4,701	5,003	4,800	5,846	1,046	21.8
	Trade balance	-2,544	-2,799	-2,933	-2,796	-3,668	-872	-31.2
AG019	Prepared or preserved vegetables, mushrooms, and olives:							
	Exports	1,708	1,943	2,523	2,446	2,567	121	4.9
	Imports	2,290	2,550	2,813	2,736	2,894	159	5.8
	Trade balance	-583	-607	-289	-290	-327	-37	-12.9

See footnote(s) at end of table.

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG020	Edible nuts:							
	Exports	3,092	3,311	3,742	4,024	4,756	732	18.2
	Imports	1,101	1,184	1,351	1,275	1,463	188	14.7
	Trade balance	1,990	2,128	2,391	2,749	3,293	544	19.8
AG021	Tropical fruit:							
	Exports	80	62	77	70	101	30	43.1
	Imports	2,219	2,530	2,761	3,130	3,301	171	5.5
	Trade balance	-2,140	-2,468	-2,684	-3,060	-3,201	-140	-4.6
AG022	Citrus fruit:							
	Exports	744	749	874	832	998	166	19.9
	Imports	602	723	689	683	776	93	13.6
	Trade balance	142	26	185	149	222	73	48.8
AG023	Deciduous fruit:							
	Exports	1,065	1,233	1,422	1,396	1,550	154	11.0
	Imports	393	462	448	372	424	52	13.9
	Trade balance	672	770	974	1,024	1,126	102	10.0
AG024	Other fresh fruit:							
	Exports	1,052	1,170	1,346	1,326	1,435	109	8.2
	Imports	1,826	2,035	2,121	2,302	2,803	501	21.7
	Trade balance	-774	-866	-775	-976	-1,368	-392	-40.1
AG025	Dried fruit other than tropical:							
	Exports	418	481	589	533	608	75	14.0
	Imports	153	182	191	180	183	2	1.3
	Trade balance	266	299	398	353	426	72	20.5
AG026	Frozen fruit:							
	Exports	110	132	143	130	148	18	14.1
	Imports	356	415	444	348	393	45	13.0
	Trade balance	-246	-283	-300	-218	-244	-27	-12.4
AG027	Prepared or preserved fruit:							
	Exports	288	324	387	365	412	46	12.6
	Imports	985	1,116	1,263	1,213	1,320	107	8.8
	Trade balance	-697	-791	-876	-848	-909	-61	-7.2
AG028	Coffee and tea:							
	Exports	559	657	807	819	945	126	15.4
	Imports	3,694	4,173	4,855	4,509	5,469	960	21.3
	Trade balance	-3,135	-3,515	-4,048	-3,690	-4,524	-834	-22.6
AG029	Spices:							
	Exports	86	94	110	117	122	6	4.8
	Imports	543	677	819	729	872	144	19.7
	Trade balance	-457	-583	-709	-612	-750	-138	-22.6
AG030	Cereals:							
	Exports	13,341	20,860	28,625	17,240	19,930	2,690	15.6
	Imports	963	1,425	2,496	1,808	1,610	-199	-11.0
	Trade balance	12,378	19,435	26,129	15,432	18,320	2,888	18.7

See footnote(s) at end of table.

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG031	Milled grains, malts, and starches:							
	Exports	858	1,179	840	824	736	-88	-10.7
	Imports	550	721	1,077	957	982	25	2.6
	Trade balance	308	458	-237	-132	-246	-113	-85.5
AG032	Oilseeds:							
	Exports	7,172	10,346	15,853	16,780	18,936	2,156	12.8
	Imports	387	572	1,002	668	647	-21	-3.2
	Trade balance	6,786	9,774	14,851	16,112	18,289	2,177	13.5
AG033	Animal or vegetable fats and oils:							
	Exports	2,010	2,981	4,475	3,354	4,484	1,130	33.7
	Imports	2,753	3,358	5,261	3,779	4,306	527	14.0
	Trade balance	-743	-377	-786	-425	177	602	(b)
AG034	Pasta, cereals, and other bakery goods:							
	Exports	1,771	2,015	2,398	2,489	2,708	219	8.8
	Imports	3,335	3,690	4,011	3,971	4,415	444	11.2
	Trade balance	-1,563	-1,675	-1,614	-1,482	-1,706	-224	-15.1
AG035	Sauces, condiments, and soups:							
	Exports	947	1,014	1,178	1,172	1,285	113	9.7
	Imports	850	937	1,027	964	1,030	66	6.9
	Trade balance	97	78	150	208	255	47	22.7
AG036	Infant formulas, malt extracts, and other edible preparations:							
	Exports	3,422	3,458	4,002	3,909	4,312	403	10.3
	Imports	1,528	1,556	1,621	1,619	1,942	323	20.0
	Trade balance	1,894	1,902	2,381	2,289	2,369	80	3.5
AG037	Cocoa, chocolate, and confectionery:							
	Exports	1,066	1,206	1,396	1,384	1,530	146	10.5
	Imports	3,846	3,882	4,534	4,659	5,599	940	20.2
	Trade balance	-2,781	-2,676	-3,138	-3,275	-4,069	-794	-24.3
AG038	Fruit and vegetable juices:							
	Exports	862	979	1,061	990	1,084	94	9.5
	Imports	1,145	1,738	1,925	1,357	1,402	45	3.3
	Trade balance	-283	-759	-864	-367	-317	49	13.5
AG039	Nonalcoholic beverages, excluding fruit and vegetable juices:							
	Exports	554	643	819	887	886	-1	-0.1
	Imports	1,769	2,012	1,875	1,626	1,789	162	10.0
	Trade balance	-1,214	-1,369	-1,056	-739	-902	-163	-22.1
AG040	Malt beverages:							
	Exports	209	246	275	306	327	21	7.0
	Imports	3,563	3,602	3,648	3,325	3,493	168	5.0
	Trade balance	-3,353	-3,357	-3,372	-3,020	-3,166	-146	-4.8

See footnote(s) at end of table.

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG041	Wine and certain other fermented beverages:							
	Exports	842	910	964	860	1,064	204	23.7
	Imports	4,176	4,658	4,655	4,039	4,306	266	6.6
	Trade balance	-3,333	-3,749	-3,691	-3,180	-3,242	-62	-2.0
AG042	Distilled spirits:							
	Exports	893	1,035	1,102	1,051	1,175	124	11.8
	Imports	4,527	5,081	5,061	4,810	5,218	407	8.5
	Trade balance	-3,634	-4,046	-3,959	-3,759	-4,042	-283	-7.5
AG043	Unmanufactured tobacco:							
	Exports	1,141	1,208	1,238	1,160	1,167	7	0.6
	Imports	751	840	804	900	720	-180	-20.0
	Trade balance	390	369	435	260	447	187	72.1
AG044	Cigars and certain other manufactured tobacco:							
	Exports	107	109	118	76	83	7	9.1
	Imports	392	416	465	475	532	58	12.1
	Trade balance	-285	-307	-347	-399	-450	-51	-12.7
AG045	Cigarettes:							
	Exports	1,214	1,012	705	414	371	-43	-10.4
	Imports	190	170	165	156	137	-19	-12.3
	Trade balance	1,024	843	540	258	234	-24	-9.2
AG046	Hides, skins, and leather:							
	Exports	2,755	2,932	2,607	1,812	2,827	1,015	56.0
	Imports	841	810	688	450	593	144	31.9
	Trade balance	1,915	2,122	1,919	1,362	2,233	871	63.9
AG047	Furskins:							
	Exports	246	266	300	182	265	82	45.0
	Imports	116	124	129	102	142	39	38.5
	Trade balance	130	142	170	80	123	43	53.4
AG048	Wool and other animal hair:							
	Exports	31	35	24	21	24	2	11.6
	Imports	41	35	37	20	20	1	4.0
	Trade balance	-10	(c)	-13	2	3	2	105.3
AG049	Cotton, not carded or combed:							
	Exports	4,501	4,578	4,829	3,384	5,746	2,362	69.8
	Imports	13	8	5	(c)	1	1	1,096.9
	Trade balance	4,487	4,571	4,825	3,384	5,744	2,361	69.8

See footnote(s) at end of table.

TABLE AP.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
AG050	Ethyl alcohol for nonbeverage purposes:							
	Exports	76	357	374	245	883	637	259.7
	Imports	1,600	978	1,260	564	326	-237	-42.1
	Trade balance	-1,524	-621	-886	-318	556	875	(b)

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Less than 0.05 percent.
[b]Not meaningful for purposes of comparison.
[c]Less than $500,000.

TABLE AP.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
CH001	Major primary olefins:							
	Exports	611	801	685	439	587	148	33.8
	Imports	8,062	9,472	12,812	5,931	10,496	4,565	77.0
	Trade balance	-7,451	-8,671	-12,127	-5,493	-9,909	-4,416	-80.4
CH002	Other olefins:							
	Exports	556	463	615	430	623	192	44.7
	Imports	442	448	506	375	473	98	26.2
	Trade balance	114	15	110	56	150	94	169.2
CH003	Primary aromatics:							
	Exports	375	392	478	531	816	284	53.6
	Imports	3,101	3,454	4,004	2,054	2,992	938	45.7
	Trade balance	-2,726	-3,062	-3,527	-1,523	-2,176	-654	-42.9
CH004	Organic commodity chemicals:							
	Exports	4,360	5,787	4,845	3,633	5,073	1,441	39.7
	Imports	2,736	3,141	3,691	2,104	3,139	1,035	49.2
	Trade balance	1,625	2,647	1,155	1,529	1,935	406	26.5
CH005	Organic specialty chemicals:							
	Exports	8,089	8,628	8,805	6,956	9,739	2,783	40.0
	Imports	7,981	8,422	9,324	7,805	8,580	775	9.9
	Trade balance	108	206	-520	-849	1,160	2,009	(a)
CH006	Certain organic chemicals:							
	Exports	14,263	15,796	16,360	13,339	17,679	4,341	32.5
	Imports	7,103	7,441	9,184	6,663	9,072	2,409	36.2
	Trade balance	7,159	8,355	7,176	6,675	8,607	1,932	28.9
CH007	Miscellaneous inorganic chemicals:							
	Exports	8,737	10,169	11,674	9,059	11,379	2,321	25.6
	Imports	7,310	8,308	9,279	6,388	8,314	1,926	30.2
	Trade balance	1,426	1,861	2,395	2,671	3,066	395	14.8
CH008	Inorganic acids:							
	Exports	323	318	852	535	657	122	22.8
	Imports	415	426	907	496	529	33	6.6
	Trade balance	-91	-108	-55	38	128	89	233.7
CH009	Chlor-alkali chemicals:							
	Exports	1,479	1,536	2,044	1,601	1,583	-18	-1.1
	Imports	460	398	646	453	355	-98	-21.6
	Trade balance	1,020	1,138	1,398	1,149	1,228	79	6.9
CH010	Fertilizers:							
	Exports	3,014	3,470	7,171	3,684	3,941	257	7.0
	Imports	7,525	9,507	16,485	7,373	11,801	4,428	60.1
	Trade balance	-4,512	-6,037	-9,314	-3,689	-7,860	-4,171	-113.1
CH011	Paints, inks, and related items, and certain components thereof:							
	Exports	4,988	5,456	5,914	5,195	6,937	1,742	33.5
	Imports	2,825	2,958	2,748	2,151	2,744	593	27.5
	Trade balance	2,164	2,498	3,166	3,044	4,193	1,150	37.8

See footnote(s) at end of table.

TABLE AP.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
CH012	Synthetic organic pigments:							
	Exports	405	401	452	329	445	116	35.3
	Imports	411	452	477	330	494	163	49.4
	Trade balance	-6	-51	-26	-1	-48	-47	-3,547.6
CH013	Synthetic dyes and azoic couplers:							
	Exports	304	325	321	300	379	78	26.1
	Imports	389	337	367	260	380	119	45.8
	Trade balance	-85	-13	-47	40	-1	-41	(a)
CH014	Synthetic tanning agents:							
	Exports	29	24	21	19	24	5	25.4
	Imports	7	7	9	6	8	2	25.6
	Trade balance	22	17	12	13	16	3	25.3
CH015	Natural tanning and dyeing materials:							
	Exports	67	75	78	67	78	11	16.4
	Imports	76	85	109	122	138	16	13.5
	Trade balance	-9	-10	-32	-55	-60	-5	-10.0
CH016	Photographic chemicals and preparations:							
	Exports	512	538	693	610	803	193	31.7
	Imports	476	424	451	343	394	51	14.7
	Trade balance	36	114	243	267	409	142	53.4
CH017	Pesticide products and formulations:							
	Exports	3,105	3,537	3,773	3,737	4,507	770	20.6
	Imports	1,882	1,899	2,354	2,249	2,169	-80	-3.6
	Trade balance	1,223	1,638	1,419	1,488	2,338	850	57.1
CH018	Adhesives and glues:							
	Exports	911	1,087	1,119	997	1,257	260	26.1
	Imports	338	377	358	276	315	39	14.1
	Trade balance	573	710	762	721	942	221	30.7
CH019	Medicinal chemicals:							
	Exports	32,460	37,041	42,146	46,359	47,304	945	2.0
	Imports	65,218	71,777	79,943	82,417	86,603	4,187	5.1
	Trade balance	-32,758	-34,735	-37,797	-36,057	-39,299	-3,242	-9.0
CH020	Essential oils and other flavoring materials:							
	Exports	1,525	1,674	1,813	1,816	2,055	239	13.2
	Imports	3,089	3,062	3,400	2,940	3,141	201	6.8
	Trade balance	-1,564	-1,388	-1,587	-1,124	-1,085	39	3.4
CH021	Perfumes, cosmetics, and toiletries:							
	Exports	5,018	5,601	6,271	5,911	6,600	689	11.7
	Imports	4,374	4,924	5,221	4,738	5,492	753	15.9
	Trade balance	643	678	1,050	1,173	1,108	-65	-5.5
CH022	Soaps, detergents, and surface-active agents:							
	Exports	3,608	3,899	4,660	4,409	5,115	706	16.0
	Imports	1,835	1,874	2,025	1,737	2,026	289	16.6
	Trade balance	1,773	2,025	2,635	2,672	3,089	417	15.6

See footnote(s) at end of table.

TABLE AP.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
CH023	Miscellaneous chemicals and specialties:							
	Exports	4,249	5,259	7,854	5,155	5,730	575	11.2
	Imports	3,249	3,799	5,315	3,507	4,310	803	22.9
	Trade balance	1,000	1,461	2,539	1,648	1,420	-228	-13.8
CH024	Explosives, propellant powders, and related items:							
	Exports	542	580	602	575	732	158	27.5
	Imports	534	563	535	512	608	96	18.8
	Trade balance	8	18	67	63	124	61	97.8
CH025	Polyethylene resins in primary forms:							
	Exports	5,103	6,312	7,578	6,236	6,959	724	11.6
	Imports	3,712	3,510	3,932	2,454	3,330	876	35.7
	Trade balance	1,391	2,801	3,646	3,781	3,630	-152	-4.0
CH026	Polypropylene resins in primary forms:							
	Exports	2,648	3,551	3,563	2,659	3,085	426	16.0
	Imports	395	463	379	162	255	93	57.6
	Trade balance	2,253	3,088	3,183	2,498	2,830	333	13.3
CH027	Polyvinyl chloride resins in primary forms:							
	Exports	1,323	1,628	2,213	2,228	3,149	921	41.4
	Imports	546	381	362	247	368	121	48.9
	Trade balance	777	1,247	1,851	1,981	2,781	800	40.4
CH028	Styrene polymers in primary forms:							
	Exports	1,322	1,413	1,401	1,000	1,307	307	30.7
	Imports	1,102	914	938	653	862	209	32.0
	Trade balance	220	499	463	347	446	98	28.3
CH029	Saturated polyester resins:							
	Exports	1,159	1,295	1,188	963	1,346	383	39.8
	Imports	1,329	1,322	1,302	873	960	86	9.9
	Trade balance	-170	-27	-113	90	387	297	330.8
CH030	Other plastics in primary forms:							
	Exports	11,746	12,860	13,430	10,412	14,512	4,100	39.4
	Imports	4,244	4,362	4,620	3,377	4,606	1,229	36.4
	Trade balance	7,502	8,498	8,810	7,034	9,906	2,871	40.8
CH031	Synthetic rubber:							
	Exports	3,120	3,536	3,674	2,697	3,734	1,037	38.4
	Imports	1,520	1,510	1,924	1,178	1,816	638	54.2
	Trade balance	1,600	2,026	1,750	1,519	1,918	399	26.3
CH032	Tires and tubes:							
	Exports	3,164	3,709	4,279	3,799	4,385	586	15.4
	Imports	8,743	9,462	9,811	8,229	10,806	2,577	31.3
	Trade balance	-5,579	-5,752	-5,533	-4,429	-6,421	-1,992	-45.0

See footnote(s) at end of table.

TABLE AP.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
CH033	Miscellaneous plastic products:							
	Exports	17,570	19,218	20,189	17,719	21,235	3,516	19.8
	Imports	21,738	22,235	22,726	19,328	22,956	3,628	18.8
	Trade balance	-4,168	-3,017	-2,537	-1,609	-1,721	-112	-7.0
CH034	Miscellaneous rubber products:							
	Exports	3,055	2,917	2,912	2,442	3,121	680	27.8
	Imports	4,074	4,358	4,342	3,331	4,491	1,160	34.8
	Trade balance	-1,019	-1,441	-1,430	-890	-1,370	-480	-54.0
CH035	Gelatin:							
	Exports	76	68	69	62	65	3	4.1
	Imports	138	143	150	179	181	2	1.0
	Trade balance	-62	-75	-81	-117	-116	1	0.7
CH036	Natural rubber:							
	Exports	33	44	44	45	83	38	82.7
	Imports	2,029	2,119	2,857	1,274	2,820	1,546	121.4
	Trade balance	-1,996	-2,074	-2,813	-1,228	-2,737	-1,509	-122.9

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Not meaningful for purposes of comparison.

TABLE AP.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
EL001	Office machines:							
	Exports	911	1,295	1,221	845	805	-40	-4.7
	Imports	1,877	2,145	1,876	1,487	1,564	77	5.2
	Trade balance	-966	-851	-654	-642	-759	-117	-18.2
EL002	Telecommunications equipment:							
	Exports	14,779	16,882	17,151	13,417	13,601	184	1.4
	Imports	53,318	60,699	64,331	60,299	74,065	13,767	22.8
	Trade balance	-38,539	-43,817	-47,180	-46,881	-60,464	-13,583	-29.0
EL003	Consumer electronics:							
	Exports	4,231	4,626	4,466	3,965	4,785	820	20.7
	Imports	54,831	57,581	55,257	47,186	51,031	3,845	8.1
	Trade balance	-50,600	-52,956	-50,791	-43,221	-46,246	-3,025	-7.0
EL003A	Television receivers and video monitors:							
	Exports	1,101	1,268	1,186	1,223	1,540	317	25.9
	Imports	28,628	33,267	34,757	29,751	31,125	1,374	4.6
	Trade balance	-27,527	-31,999	-33,571	-28,528	-29,585	-1,057	-3.7
EL004	Blank and prerecorded media:							
	Exports	4,449	4,139	4,365	3,567	3,560	-8	-0.2
	Imports	5,748	5,550	4,873	3,799	3,814	15	0.4
	Trade balance	-1,300	-1,411	-508	-232	-254	-22	-9.7
EL005	Navigational instruments and remote control apparatus:							
	Exports	3,786	4,437	4,105	2,558	2,768	210	8.2
	Imports	3,996	5,590	5,794	5,501	5,341	-159	-2.9
	Trade balance	-210	-1,153	-1,690	-2,943	-2,573	369	12.5
EL006	Radio and television broadcasting equipment:							
	Exports	1,535	1,204	1,194	989	1,090	101	10.2
	Imports	3,527	2,684	3,050	2,279	2,734	455	20.0
	Trade balance	-1,991	-1,479	-1,857	-1,290	-1,645	-354	-27.5
EL007	Electric sound and visual signaling apparatus:							
	Exports	1,205	1,320	1,389	1,243	1,295	52	4.1
	Imports	2,647	2,776	2,717	2,455	2,821	365	14.9
	Trade balance	-1,443	-1,456	-1,328	-1,212	-1,526	-314	-25.9
EL008	Electrical capacitors and resistors:							
	Exports	1,825	1,548	1,330	1,172	1,254	82	7.0
	Imports	2,721	2,453	2,296	1,586	2,296	711	44.8
	Trade balance	-896	-905	-966	-414	-1,042	-628	-151.6
EL009	Printed circuits:							
	Exports	1,864	1,531	1,389	1,141	1,325	184	16.1
	Imports	2,215	2,228	2,082	1,479	1,841	362	24.5
	Trade balance	-351	-697	-693	-338	-516	-178	-52.6
EL010	Circuit apparatus exceeding 1000V:							
	Exports	539	597	683	576	649	74	12.8
	Imports	442	460	568	465	523	59	12.7
	Trade balance	97	137	115	111	126	15	13.5

See footnote(s) at end of table.

TABLE AP.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
EL011	Circuit apparatus not exceeding 1000V:							
	Exports	6,124	6,517	6,427	5,032	5,859	827	16.4
	Imports	7,369	7,777	7,763	5,727	7,911	2,184	38.1
	Trade balance	-1,245	-1,261	-1,335	-694	-2,051	-1,357	-195.4
EL012	Circuit apparatus assemblies:							
	Exports	2,250	2,458	2,560	2,206	2,427	220	10.0
	Imports	4,496	5,026	5,327	4,228	5,446	1,218	28.8
	Trade balance	-2,246	-2,568	-2,768	-2,022	-3,019	-997	-49.3
EL013	Parts of circuit apparatus:							
	Exports	2,530	2,630	2,406	1,864	2,442	578	31.0
	Imports	1,992	2,145	1,911	1,424	2,037	613	43.0
	Trade balance	538	485	495	440	405	-35	-7.9
EL014	Electron tubes:							
	Exports	465	297	276	262	320	58	22.0
	Imports	560	374	340	267	294	27	10.3
	Trade balance	-96	-77	-64	-5	25	30	(a)
EL015	Semiconductors and integrated circuits:							
	Exports	37,227	35,487	35,809	25,058	31,267	6,209	24.8
	Imports	27,022	26,259	25,298	21,190	29,134	7,945	37.5
	Trade balance	10,205	9,227	10,511	3,869	2,133	-1,736	-44.9
EL016	Miscellaneous electrical equipment:							
	Exports	2,537	2,341	2,141	1,744	2,066	322	18.4
	Imports	3,738	3,653	3,857	3,638	5,587	1,949	53.6
	Trade balance	-1,201	-1,311	-1,716	-1,894	-3,521	-1,627	-85.9
EL017	Computers, peripherals, and parts:							
	Exports	29,969	28,051	26,554	19,770	20,533	763	3.9
	Imports	102,468	106,789	102,338	95,391	118,898	23,507	24.6
	Trade balance	-72,499	-78,738	-75,785	-75,621	-98,366	-22,744	-30.1
EL018	Photographic film and paper:							
	Exports	2,336	2,353	2,237	2,091	2,034	-57	-2.7
	Imports	1,657	1,541	1,340	1,067	1,056	-11	-1.0
	Trade balance	679	812	897	1,023	978	-46	-4.5
EL019	Optical fibers, optical fiber bundles and cables:							
	Exports	568	634	842	906	982	76	8.4
	Imports	554	543	639	481	589	108	22.5
	Trade balance	14	92	203	425	392	-32	-7.6
EL020	Optical goods, including ophthalmic goods:							
	Exports	5,041	5,166	4,963	4,447	5,489	1,042	23.4
	Imports	6,294	7,137	7,978	6,632	8,095	1,464	22.1
	Trade balance	-1,253	-1,971	-3,016	-2,184	-2,606	-422	-19.3
EL021	Photographic cameras and equipment:							
	Exports	1,177	1,423	1,610	1,303	1,550	247	19.0
	Imports	1,612	1,614	1,261	841	927	86	10.2
	Trade balance	-435	-191	349	462	624	162	35.0

See footnote(s) at end of table.

TABLE AP.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
EL022	Medical goods:							
	Exports	23,443	25,446	28,415	28,647	30,604	1,956	6.8
	Imports	22,573	24,878	27,531	25,928	29,219	3,291	12.7
	Trade balance	871	569	884	2,719	1,384	-1,335	-49.1
EL023	Watches and clocks:							
	Exports	304	391	416	356	381	24	6.8
	Imports	3,964	4,168	4,175	3,000	3,592	592	19.7
	Trade balance	-3,660	-3,777	-3,758	-2,643	-3,211	-568	-21.5
EL024	Drawing, drafting, and calculating instruments:							
	Exports	619	766	665	543	605	62	11.3
	Imports	293	263	256	158	206	48	30.5
	Trade balance	326	503	410	385	399	13	3.5
EL025	Measuring, testing, and controlling instruments:							
	Exports	19,669	20,963	22,195	19,251	22,161	2,910	15.1
	Imports	16,573	18,678	18,764	14,912	18,592	3,680	24.7
	Trade balance	3,096	2,286	3,431	4,339	3,569	-770	-17.7

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Not meaningful for purposes of comparison.

TABLE AP.4 Energy-related products: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
EP001	Electrical energy:							
	Exports	1,052	991	1,386	575	648	73	12.7
	Imports	2,518	2,713	3,641	2,071	2,071	1	[a]
	Trade balance	-1,466	-1,722	-2,254	-1,495	-1,423	72	4.8
EP002	Nuclear materials:							
	Exports	1,822	2,424	2,141	2,235	1,886	-349	-15.6
	Imports	3,910	5,273	5,435	4,454	5,025	571	12.8
	Trade balance	-2,088	-2,848	-3,294	-2,219	-3,139	-920	-41.5
EP003	Coal, coke, and related chemical products:							
	Exports	5,179	5,877	10,255	8,079	12,612	4,533	56.1
	Imports	6,930	6,880	9,102	4,123	5,335	1,212	29.4
	Trade balance	-1,751	-1,003	1,154	3,956	7,278	3,322	84.0
EP004	Crude petroleum:							
	Exports	852	993	2,296	1,620	1,384	-236	-14.5
	Imports	171,243	186,476	274,950	150,809	196,862	46,053	30.5
	Trade balance	-170,391	-185,482	-272,654	-149,189	-195,478	-46,289	-31.0
EP005	Petroleum products:							
	Exports	26,407	31,484	58,765	42,048	61,131	19,083	45.4
	Imports	89,448	98,577	126,441	72,581	97,889	25,308	34.9
	Trade balance	-63,042	-67,094	-67,675	-30,533	-36,758	-6,225	-20.4
EP006	Natural gas and components:							
	Exports	3,688	4,905	6,893	5,270	7,805	2,536	48.1
	Imports	45,118	44,910	52,757	26,840	31,001	4,161	15.5
	Trade balance	-41,430	-40,005	-45,864	-21,571	-23,196	-1,625	-7.5

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Less than 0.05 percent.

TABLE AP.5 Forest products: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
FP001	Logs and rough wood products:							
	Exports	1,744	2,061	2,116	1,716	2,236	521	30.4
	Imports	832	746	567	398	423	25	6.3
	Trade balance	913	1,314	1,549	1,317	1,813	496	37.6
FP002	Lumber:							
	Exports	2,275	2,124	1,889	1,593	2,256	663	41.6
	Imports	8,335	6,508	4,404	2,639	3,391	752	28.5
	Trade balance	-6,060	-4,384	-2,515	-1,046	-1,135	-88	-8.5
FP003	Moldings, millwork, and joinery:							
	Exports	633	664	728	549	648	99	18.0
	Imports	4,750	3,894	3,040	2,125	2,316	191	9.0
	Trade balance	-4,116	-3,230	-2,312	-1,576	-1,668	-92	-5.8
FP004	Wood veneer and wood panels:							
	Exports	1,128	1,174	1,171	833	1,065	232	27.9
	Imports	6,623	5,169	3,941	2,961	3,413	452	15.3
	Trade balance	-5,495	-3,995	-2,770	-2,128	-2,348	-220	-10.4
FP005	Wooden containers:							
	Exports	210	212	266	253	271	18	7.1
	Imports	737	754	722	546	590	44	8.1
	Trade balance	-527	-541	-456	-293	-319	-26	-8.9
FP006	Tools and tool handles of wood:							
	Exports	46	50	73	56	61	5	9.5
	Imports	173	182	191	156	177	21	13.7
	Trade balance	-127	-131	-119	-100	-116	-16	-16.0
FP007	Miscellaneous articles of wood:							
	Exports	224	228	251	216	221	5	2.4
	Imports	1,462	1,402	1,276	981	1,068	87	8.9
	Trade balance	-1,239	-1,174	-1,025	-765	-847	-82	-10.7
FP008	Cork and rattan:							
	Exports	90	62	71	54	46	-7	-14.0
	Imports	678	698	705	561	618	57	10.1
	Trade balance	-587	-636	-634	-507	-571	-64	-12.6
FP009	Wood pulp and wastepaper:							
	Exports	5,749	6,916	7,809	6,751	8,788	2,037	30.2
	Imports	3,194	3,750	4,023	2,449	3,886	1,436	58.6
	Trade balance	2,554	3,165	3,787	4,302	4,902	600	14.0
FP010	Paper boxes and bags:							
	Exports	1,625	1,598	1,616	1,483	1,669	186	12.5
	Imports	1,710	1,801	1,793	1,596	1,796	200	12.6
	Trade balance	-85	-203	-177	-113	-127	-14	-12.8
FP011	Industrial papers and paperboards:							
	Exports	6,788	7,518	8,281	7,265	8,574	1,309	18.0
	Imports	4,713	4,895	5,252	4,621	5,256	635	13.7
	Trade balance	2,075	2,623	3,028	2,644	3,318	675	25.5

See footnote(s) at end of table.

TABLE AP.5 Forest products: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
FP011A	Paperboard:							
	Exports	4,769	5,356	5,889	5,065	6,055	990	19.6
	Imports	2,320	2,337	2,461	2,019	2,342	322	16.0
	Trade balance	2,449	3,018	3,428	3,045	3,713	668	21.9
FP011B	Tissue and tissue products:							
	Exports	1,363	1,454	1,621	1,589	1,774	186	11.7
	Imports	1,724	1,834	2,018	1,946	2,176	230	11.8
	Trade balance	-361	-379	-398	-357	-402	-45	-12.5
FP011C	Industrial paper:							
	Exports	656	708	771	611	745	134	21.9
	Imports	669	724	773	656	738	82	12.6
	Trade balance	-13	-16	-3	-44	7	51	([a])
FP012	Newsprint:							
	Exports	355	410	605	317	440	123	39.0
	Imports	3,074	2,384	2,365	1,442	1,377	-65	-4.5
	Trade balance	-2,719	-1,973	-1,759	-1,125	-937	188	16.7
FP013	Printing and writing papers:							
	Exports	902	1,135	1,190	1,105	1,277	172	15.5
	Imports	6,149	5,754	5,672	4,285	4,044	-242	-5.6
	Trade balance	-5,247	-4,619	-4,482	-3,180	-2,766	414	13.0
FP014	Certain specialty papers:							
	Exports	1,360	1,529	1,611	1,389	1,526	137	9.8
	Imports	1,033	1,062	957	835	905	70	8.4
	Trade balance	327	467	654	554	621	66	12.0
FP015	Miscellaneous paper products:							
	Exports	1,811	1,755	1,860	1,749	1,898	149	8.5
	Imports	2,113	2,336	2,335	1,964	2,207	242	12.3
	Trade balance	-302	-581	-475	-216	-309	-93	-43.1
FP016	Printed matter:							
	Exports	5,217	5,652	5,825	5,162	5,405	243	4.7
	Imports	4,842	5,227	5,048	3,952	4,282	330	8.4
	Trade balance	375	425	777	1,210	1,123	-88	-7.2

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Not meaningful for purposes of comparison.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM001	Clays and related mineral products:							
	Exports	1,236	1,263	1,280	980	1,269	289	29.5
	Imports	281	282	294	351	429	77	22.0
	Trade balance	955	982	986	628	840	212	33.7
MM002	Fluorspar and miscellaneous mineral substances:							
	Exports	37	43	50	47	107	61	130.3
	Imports	202	198	393	184	173	-11	-5.9
	Trade balance	-165	-155	-342	-138	-66	72	52.0
MM003	Iron ores and concentrates:							
	Exports	636	718	1,244	356	1,092	736	206.6
	Imports	610	543	917	375	703	328	87.4
	Trade balance	25	176	327	-19	388	407	[a]
MM004	Copper ores and concentrates:							
	Exports	770	1,041	1,731	930	1,181	252	27.1
	Imports	[b]	[b]	1	[b]	2	2	847.4
	Trade balance	770	1,040	1,730	929	1,179	250	26.9
MM005	Lead ores, concentrates, and residues:							
	Exports	362	619	372	382	668	286	75.0
	Imports	[b]	[b]	[b]	[b]	2	1	228.6
	Trade balance	362	619	372	381	666	285	74.8
MM005A	Lead ores and concentrates:							
	Exports	347	606	370	372	667	295	79.1
	Imports	[b]	[b]	[b]	[b]	2	1	240.1
	Trade balance	347	606	370	372	665	293	78.9
MM006	Zinc ores, concentrates, and residues:							
	Exports	1,076	1,204	616	674	934	260	38.6
	Imports	229	203	91	76	63	-13	-17.2
	Trade balance	846	1,002	525	598	871	273	45.7
MM006A	Zinc ores and concentrates:							
	Exports	1,068	1,191	610	663	924	260	39.3
	Imports	183	170	73	68	44	-24	-35.7
	Trade balance	885	1,021	537	595	880	285	47.9
MM007	Certain ores, concentrates, ash, and residues:							
	Exports	1,687	1,917	2,073	768	1,225	457	59.5
	Imports	1,364	1,818	2,403	1,696	1,747	51	3.0
	Trade balance	324	100	-331	-928	-522	406	43.8
MM007A	Molybdenum ores and concentrates:							
	Exports	1,457	1,637	1,814	631	1,055	424	67.3
	Imports	395	553	512	150	314	164	109.5
	Trade balance	1,062	1,084	1,303	481	741	260	54.1
MM008	Precious metal ores and concentrates:							
	Exports	49	66	251	204	249	46	22.4
	Imports	14	10	18	36	62	26	72.0
	Trade balance	35	56	233	168	187	19	11.6

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM008A	Gold ores and concentrates:							
	Exports	40	49	66	68	158	90	132.1
	Imports	13	8	16	33	58	25	75.3
	Trade balance	27	41	50	35	100	65	186.4
MM008B	Silver ores and concentrates:							
	Exports	4	9	99	134	81	-53	-39.3
	Imports	0	(b)	(b)	(b)	(b)	(b)	1,023.1
	Trade balance	4	9	99	134	81	-53	-39.4
MM009	Cement, stone, and related products:							
	Exports	2,399	2,512	2,554	2,069	2,703	634	30.7
	Imports	8,151	7,637	6,499	4,536	5,066	531	11.7
	Trade balance	-5,753	-5,125	-3,945	-2,467	-2,364	103	4.2
MM009A	Cement:							
	Exports	114	126	106	109	169	60	54.8
	Imports	1,842	1,324	789	511	501	-10	-2.0
	Trade balance	-1,728	-1,198	-682	-402	-331	70	17.5
MM010	Industrial ceramics:							
	Exports	784	981	998	807	1,146	339	42.0
	Imports	880	919	1,037	712	1,241	530	74.4
	Trade balance	-96	62	-39	95	-95	-191	(a)
MM011	Ceramic bricks and similar articles:							
	Exports	43	52	47	39	39	(b)	1.0
	Imports	94	72	68	43	34	-9	-20.9
	Trade balance	-51	-21	-21	-5	5	9	(a)
MM012	Ceramic floor and wall tiles:							
	Exports	37	42	44	39	40	1	2.7
	Imports	1,919	1,638	1,378	964	1,025	60	6.3
	Trade balance	-1,881	-1,597	-1,335	-926	-985	-59	-6.4
MM013	Ceramic household articles:							
	Exports	99	118	119	100	97	-3	-2.7
	Imports	1,737	1,734	1,538	1,181	1,490	309	26.2
	Trade balance	-1,638	-1,616	-1,418	-1,081	-1,393	-312	-28.9
MM014	Flat glass:							
	Exports	2,204	2,413	2,432	1,785	2,310	525	29.4
	Imports	2,143	2,120	1,879	1,474	1,784	310	21.0
	Trade balance	61	294	552	311	526	215	69.0
MM015	Glass containers:							
	Exports	180	237	262	298	279	-19	-6.4
	Imports	794	902	970	792	926	134	17.0
	Trade balance	-614	-666	-707	-494	-647	-153	-31.1
MM016	Household glassware:							
	Exports	205	220	236	215	247	32	14.8
	Imports	895	919	823	632	758	126	20.0
	Trade balance	-689	-698	-586	-417	-512	-94	-22.7

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM017	Miscellaneous glass products:							
	Exports	866	813	828	686	877	191	27.9
	Imports	916	974	990	789	954	165	20.9
	Trade balance	-51	-161	-162	-103	-77	26	25.5
MM018	Fiberglass insulation products:							
	Exports	73	98	121	205	127	-77	-37.8
	Imports	272	133	118	73	73	(b)	0.2
	Trade balance	-198	-35	4	131	54	-78	-59.1
MM019	Natural and synthetic gemstones:							
	Exports	4,087	5,572	6,248	2,447	3,303	856	35.0
	Imports	18,452	20,239	21,072	13,608	19,730	6,123	45.0
	Trade balance	-14,366	-14,667	-14,823	-11,161	-16,427	-5,267	-47.2
MM020	Precious metals and non-numismatic coins:							
	Exports	13,360	19,289	26,534	20,699	28,033	7,334	35.4
	Imports	14,232	16,022	18,750	16,287	23,701	7,413	45.5
	Trade balance	-872	3,267	7,784	4,412	4,332	-79	-1.8
MM020A	Unrefined and refined gold:							
	Exports	7,171	11,509	16,276	11,918	14,698	2,781	23.3
	Imports	5,029	3,934	5,454	7,928	11,647	3,719	46.9
	Trade balance	2,142	7,575	10,821	3,990	3,052	-938	-23.5
MM021	Primary iron products:							
	Exports	12	8	19	7	18	11	146.3
	Imports	2,227	2,236	3,856	1,184	2,149	965	81.5
	Trade balance	-2,215	-2,229	-3,837	-1,176	-2,131	-954	-81.1
MM022	Ferroalloys:							
	Exports	146	206	220	128	165	37	29.0
	Imports	1,954	2,788	4,310	1,062	2,668	1,606	151.2
	Trade balance	-1,807	-2,582	-4,090	-935	-2,503	-1,569	-167.9
MM023	Iron and steel waste and scrap:							
	Exports	4,256	6,910	10,384	7,125	8,399	1,274	17.9
	Imports	1,255	1,051	1,456	817	1,423	606	74.1
	Trade balance	3,001	5,859	8,928	6,307	6,975	668	10.6
MM024	Abrasive and ferrous products:							
	Exports	621	684	700	528	774	246	46.6
	Imports	1,048	1,083	1,084	745	1,039	294	39.5
	Trade balance	-427	-399	-384	-217	-265	-48	-22.3
MM024A	Abrasive products:							
	Exports	417	436	424	339	486	146	43.1
	Imports	712	736	716	536	683	147	27.3
	Trade balance	-295	-300	-292	-197	-197	(b)	-0.2
MM025	Steel mill products:							
	Exports	10,479	12,535	16,737	10,648	14,086	3,438	32.3
	Imports	31,500	29,204	36,870	16,995	22,928	5,933	34.9
	Trade balance	-21,020	-16,670	-20,133	-6,347	-8,842	-2,495	-39.3

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM025A	Ingots, blooms, billets, and slabs of carbon and alloy steels:							
	Exports	163	359	633	459	474	16	3.4
	Imports	3,836	3,050	4,231	891	2,535	1,644	184.5
	Trade balance	-3,673	-2,691	-3,598	-432	-2,060	-1,628	-376.9
MM025B	Plates, sheets, and strips of carbon and alloy steels:							
	Exports	4,137	4,516	6,205	3,940	5,137	1,197	30.4
	Imports	10,510	7,210	8,781	4,480	6,133	1,653	36.9
	Trade balance	-6,373	-2,694	-2,577	-540	-997	-457	-84.5
MM025C	Bars, rods, and light shapes of carbon and alloy steels:							
	Exports	999	1,162	1,706	989	1,536	547	55.3
	Imports	4,043	3,164	3,588	1,472	2,362	890	60.4
	Trade balance	-3,044	-2,002	-1,881	-483	-825	-342	-70.9
MM025D	Angles, shapes, and sections of carbon and alloy steels:							
	Exports	603	862	1,086	459	659	200	43.5
	Imports	769	781	885	394	516	122	30.9
	Trade balance	-166	81	201	65	143	78	120.7
MM025E	Wire of carbon and alloy steels:							
	Exports	243	240	293	198	270	71	35.9
	Imports	782	721	840	493	665	172	34.9
	Trade balance	-540	-481	-547	-295	-395	-101	-34.2
MM025F	Ingots, blooms, billets, and slabs of stainless steels:							
	Exports	60	98	139	101	97	-4	-3.6
	Imports	411	628	546	204	355	151	73.8
	Trade balance	-351	-530	-406	-104	-258	-155	-148.8
MM025G	Plates, sheets, and strips of stainless steels:							
	Exports	919	1,292	1,360	841	1,365	524	62.4
	Imports	1,768	2,380	1,976	670	1,423	752	112.3
	Trade balance	-849	-1,088	-616	171	-58	-228	(a)
MM025H	Bars, rods, and light shapes of stainless steels:							
	Exports	252	297	323	200	271	71	35.8
	Imports	588	793	814	362	564	202	55.7
	Trade balance	-336	-497	-491	-162	-293	-130	-80.2
MM025I	Angles, shapes, and sections of stainless steels:							
	Exports	15	20	19	11	17	7	60.3
	Imports	31	37	31	17	31	14	81.3
	Trade balance	-16	-17	-12	-6	-14	-7	-117.8

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM025J	Wire of stainless steels:							
	Exports	52	62	71	59	86	27	45.4
	Imports	209	273	245	126	205	79	62.2
	Trade balance	-157	-211	-173	-67	-119	-52	-77.0
MM025K	Rails and accessories of carbon and alloy steels:							
	Exports	169	222	339	209	210	1	0.7
	Imports	374	397	436	313	327	14	4.6
	Trade balance	-205	-175	-97	-104	-117	-13	-12.4
MM025L	Pipes and tubes of carbon and alloy steels:							
	Exports	2,347	2,607	3,604	2,565	3,042	477	18.6
	Imports	6,953	8,194	12,933	6,718	6,798	80	1.2
	Trade balance	-4,605	-5,587	-9,328	-4,153	-3,756	397	9.6
MM025M	Pipes and tubes of stainless steels:							
	Exports	282	367	416	260	294	34	13.0
	Imports	821	1,180	1,102	693	675	-18	-2.7
	Trade balance	-538	-813	-686	-433	-381	52	12.0
MM025N	Tool steels:							
	Exports	239	431	544	358	627	269	75.3
	Imports	405	397	464	161	339	179	111.0
	Trade balance	-166	34	80	197	288	91	46.1
MM026	Steel pipe and tube fittings and certain cast products:							
	Exports	1,277	1,393	1,657	1,291	1,537	246	19.1
	Imports	1,307	1,650	1,928	1,246	1,447	201	16.2
	Trade balance	-30	-257	-272	45	90	45	101.4
MM027	Fabricated structurals:							
	Exports	376	379	590	420	500	80	19.1
	Imports	1,176	1,620	2,140	1,366	1,215	-151	-11.1
	Trade balance	-800	-1,241	-1,550	-946	-714	232	24.5
MM028	Metal construction components:							
	Exports	970	1,087	1,306	1,147	1,227	80	6.9
	Imports	2,074	2,613	2,767	1,939	1,618	-321	-16.6
	Trade balance	-1,104	-1,526	-1,461	-792	-391	401	50.6
MM029	Metallic containers:							
	Exports	1,088	1,291	1,461	1,333	1,479	146	10.9
	Imports	898	1,036	1,165	1,288	1,038	-250	-19.4
	Trade balance	190	254	296	45	441	396	881.0
MM030	Wire products of base metal:							
	Exports	1,104	1,144	1,282	1,124	1,413	289	25.8
	Imports	2,538	2,571	2,811	1,731	2,105	374	21.6
	Trade balance	-1,434	-1,427	-1,529	-607	-692	-85	-14.0

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM031	Miscellaneous products of base metal:							
	Exports	6,865	7,411	7,644	5,997	7,087	1,091	18.2
	Imports	12,852	13,433	12,915	9,686	11,889	2,203	22.7
	Trade balance	-5,987	-6,021	-5,271	-3,689	-4,802	-1,113	-30.2
MM032	Industrial fasteners of base metal:							
	Exports	2,218	2,358	2,457	1,962	2,446	484	24.6
	Imports	3,684	3,755	4,098	2,561	3,490	929	36.3
	Trade balance	-1,466	-1,398	-1,641	-599	-1,044	-445	-74.4
MM033	Cooking and kitchen ware:							
	Exports	225	290	277	221	253	33	14.9
	Imports	2,581	2,621	2,505	2,180	2,683	503	23.1
	Trade balance	-2,355	-2,331	-2,228	-1,960	-2,430	-470	-24.0
MM034	Metal and ceramic sanitary ware:							
	Exports	180	210	221	193	202	9	4.7
	Imports	1,371	1,432	1,370	1,030	1,183	154	14.9
	Trade balance	-1,190	-1,222	-1,149	-836	-981	-145	-17.3
MM035	Construction castings and other cast-iron articles:							
	Exports	48	49	68	53	64	10	19.5
	Imports	223	241	241	139	168	29	20.5
	Trade balance	-175	-192	-173	-86	-104	-18	-21.2
MM036	Copper and related articles:							
	Exports	6,052	6,684	6,691	4,636	7,189	2,552	55.0
	Imports	13,803	12,577	11,153	6,125	8,609	2,484	40.6
	Trade balance	-7,751	-5,893	-4,462	-1,488	-1,420	68	4.6
MM036A	Unrefined and refined copper:							
	Exports	255	216	246	452	579	127	28.1
	Imports	7,093	6,770	6,038	3,403	4,489	1,086	31.9
	Trade balance	-6,838	-6,553	-5,792	-2,951	-3,909	-959	-32.5
MM036B	Copper alloy plate, sheet, and strip:							
	Exports	284	309	333	193	263	70	36.6
	Imports	252	242	198	119	225	106	88.9
	Trade balance	32	67	135	73	38	-36	-48.5
MM037	Unwrought aluminum:							
	Exports	3,508	4,083	4,355	2,673	3,930	1,257	47.0
	Imports	10,317	9,462	9,168	5,761	7,180	1,418	24.6
	Trade balance	-6,809	-5,380	-4,813	-3,089	-3,250	-162	-5.2
MM037A	Primary and secondary aluminum:							
	Exports	1,004	1,011	996	620	921	301	48.5
	Imports	9,114	8,309	7,853	5,021	6,163	1,142	22.8
	Trade balance	-8,110	-7,298	-6,857	-4,401	-5,242	-842	-19.1

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM038	Aluminum mill products:							
	Exports	4,592	4,779	5,232	3,671	4,235	564	15.4
	Imports	5,768	5,609	5,112	3,330	4,397	1,067	32.0
	Trade balance	-1,176	-831	120	341	-162	-503	(a)
MM038A	Aluminum bars, rods, and profiles:							
	Exports	553	568	592	431	534	103	24.0
	Imports	1,049	985	825	783	899	116	14.8
	Trade balance	-496	-417	-232	-352	-365	-13	-3.6
MM038B	Aluminum wire:							
	Exports	148	179	207	132	163	30	23.0
	Imports	571	598	574	321	387	66	20.7
	Trade balance	-423	-419	-366	-189	-224	-36	-19.0
MM038C	Aluminum plate, sheet, and strip:							
	Exports	3,025	3,161	3,431	2,397	2,699	302	12.6
	Imports	3,079	2,919	2,590	1,423	2,104	682	47.9
	Trade balance	-54	241	841	974	595	-380	-39.0
MM038D	Aluminum foil:							
	Exports	538	547	577	460	538	78	16.9
	Imports	822	810	809	591	751	159	27.0
	Trade balance	-284	-263	-232	-131	-213	-82	-62.5
MM038E	Aluminum tubes, pipes, and fittings:							
	Exports	287	287	385	226	269	43	19.2
	Imports	216	254	271	190	210	21	10.8
	Trade balance	71	34	113	36	59	23	62.8
MM039	Lead and related articles:							
	Exports	137	246	340	283	278	-6	-2.1
	Imports	451	734	850	509	708	199	39.2
	Trade balance	-315	-488	-510	-225	-431	-205	-91.0
MM039A	Refined lead:							
	Exports	52	68	101	61	62	1	1.6
	Imports	322	391	330	213	258	45	21.3
	Trade balance	-270	-323	-228	-152	-196	-44	-29.2
MM040	Zinc and related articles:							
	Exports	246	315	272	185	289	104	56.3
	Imports	2,524	2,807	1,765	1,254	1,703	449	35.8
	Trade balance	-2,278	-2,492	-1,494	-1,069	-1,414	-345	-32.3
MM040A	Unwrought zinc:							
	Exports	4	6	3	3	4	1	40.6
	Imports	2,181	2,402	1,479	1,076	1,449	373	34.6
	Trade balance	-2,177	-2,395	-1,476	-1,073	-1,445	-372	-34.6
MM041	Certain base metals and chemical elements:							
	Exports	3,792	4,119	4,453	2,735	3,227	492	18.0
	Imports	5,924	7,959	7,253	3,822	6,106	2,284	59.8
	Trade balance	-2,131	-3,840	-2,800	-1,087	-2,879	-1,792	-164.9

See footnote(s) at end of table.

TABLE AP.6 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MM041A	Titanium ingot:							
	Exports	41	44	20	20	10	-10	-51.9
	Imports	59	54	37	13	4	-9	-70.9
	Trade balance	-18	-9	-17	6	6	-1	-12.8
MM042	Nonpowered handtools:							
	Exports	2,880	3,165	3,570	2,734	3,538	804	29.4
	Imports	4,770	4,919	4,886	3,628	4,786	1,158	31.9
	Trade balance	-1,889	-1,754	-1,316	-894	-1,248	-354	-39.6
MM043	Certain cutlery, sewing implements, and related products:							
	Exports	592	597	671	562	625	62	11.1
	Imports	1,358	1,470	1,491	1,253	1,525	271	21.7
	Trade balance	-765	-873	-820	-691	-900	-209	-30.2
MM044	Table flatware and related products:							
	Exports	35	37	51	26	22	-4	-15.7
	Imports	572	624	556	444	530	86	19.3
	Trade balance	-536	-587	-505	-418	-508	-90	-21.5
MM045	Certain builders' hardware:							
	Exports	1,052	1,063	1,054	942	1,002	60	6.4
	Imports	4,155	4,346	4,004	3,119	3,646	528	16.9
	Trade balance	-3,103	-3,284	-2,950	-2,177	-2,644	-468	-21.5

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Not meaningful for purposes of comparison.
[b]Less than $500,000.

TABLE AP.7 Miscellaneous manufactures: U.S. trade for industry/commodity groups and subgroups, 2006-10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MS001	Luggage, handbags, and flat goods:							
	Exports	466	434	462	449	461	12	2.7
	Imports	6,834	7,535	7,833	6,395	7,917	1,522	23.8
	Trade balance	-6,368	-7,101	-7,370	-5,946	-7,456	-1,510	-25.4
MS001A	Luggage:							
	Exports	268	279	318	286	305	19	6.7
	Imports	3,758	4,062	4,338	3,602	4,860	1,259	34.9
	Trade balance	-3,490	-3,782	-4,020	-3,316	-4,556	-1,240	-37.4
MS001B	Handbags:							
	Exports	161	116	100	117	111	-6	-5.2
	Imports	2,366	2,676	2,680	2,131	2,274	143	6.7
	Trade balance	-2,204	-2,560	-2,580	-2,014	-2,163	-149	-7.4
MS001C	Flat goods:							
	Exports	29	29	34	35	32	-3	-9.6
	Imports	616	712	734	621	748	127	20.5
	Trade balance	-588	-684	-700	-585	-716	-130	-22.3
MS002	Certain other leather goods:							
	Exports	235	156	153	98	124	26	26.8
	Imports	464	502	466	391	483	92	23.5
	Trade balance	-229	-346	-313	-293	-359	-66	-22.4
MS003	Musical instruments and accessories:							
	Exports	561	590	660	599	618	20	3.3
	Imports	1,413	1,383	1,447	1,075	1,204	129	12.0
	Trade balance	-852	-793	-787	-476	-586	-109	-22.9
MS004	Umbrellas, whips, riding crops, and canes:							
	Exports	12	13	16	12	15	3	22.0
	Imports	386	420	443	385	479	95	24.6
	Trade balance	-374	-407	-426	-372	-464	-92	-24.7
MS005	Silverware and related articles of precious metal:							
	Exports	167	180	380	246	351	105	42.6
	Imports	302	294	849	1,398	1,383	-15	-1.1
	Trade balance	-136	-114	-468	-1,152	-1,032	120	10.4
MS006	Precious jewelry and related articles:							
	Exports	3,694	4,193	4,266	3,931	4,327	396	10.1
	Imports	9,553	9,463	7,322	5,755	6,945	1,190	20.7
	Trade balance	-5,858	-5,271	-3,057	-1,824	-2,618	-793	-43.5
MS007	Costume jewelry and related articles:							
	Exports	166	161	187	148	167	19	13.1
	Imports	1,317	1,410	1,400	1,379	1,719	340	24.6
	Trade balance	-1,151	-1,249	-1,213	-1,231	-1,551	-320	-26.0
MS008	Bicycles and certain parts:							
	Exports	300	361	363	313	342	30	9.5
	Imports	1,342	1,454	1,732	1,404	1,818	414	29.5
	Trade balance	-1,041	-1,093	-1,370	-1,092	-1,476	-384	-35.2

See footnote(s) at end of table.

TABLE AP.7 Miscellaneous manufactures: U.S. trade for industry/commodity groups and subgroups, 2006-10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MS009	Furniture:							
	Exports	3,354	3,691	4,229	3,392	3,872	480	14.2
	Imports	26,078	26,731	25,285	20,057	24,005	3,948	19.7
	Trade balance	-22,724	-23,041	-21,057	-16,665	-20,132	-3,468	-20.8
MS010	Writing instruments and related articles:							
	Exports	209	203	191	130	157	26	20.1
	Imports	1,335	1,455	1,296	1,092	1,277	185	16.9
	Trade balance	-1,125	-1,252	-1,105	-962	-1,120	-159	-16.5
MS011	Lamps and lighting fittings:							
	Exports	825	945	1,073	916	1,056	140	15.3
	Imports	6,180	6,211	5,988	4,709	5,824	1,116	23.7
	Trade balance	-5,356	-5,266	-4,914	-3,793	-4,769	-976	-25.7
MS012	Prefabricated buildings:							
	Exports	476	561	821	627	875	249	39.7
	Imports	417	408	335	216	242	26	11.9
	Trade balance	59	153	486	410	633	223	54.3
MS013	Toys and games:							
	Exports	2,172	2,948	2,539	2,435	2,450	15	0.6
	Imports	17,840	22,778	23,809	21,256	22,387	1,131	5.3
	Trade balance	-15,668	-19,830	-21,271	-18,821	-19,936	-1,115	-5.9
MS014	Sporting goods:							
	Exports	1,813	1,882	1,972	1,550	1,633	83	5.4
	Imports	5,600	5,847	5,817	4,688	5,573	885	18.9
	Trade balance	-3,787	-3,965	-3,845	-3,138	-3,940	-802	-25.5
MS015	Smokers' articles:							
	Exports	96	100	97	85	88	3	3.7
	Imports	211	225	191	188	229	41	21.7
	Trade balance	-115	-126	-94	-103	-141	-38	-36.5
MS016	Brooms, brushes, and hair grooming articles:							
	Exports	283	282	282	266	290	24	8.9
	Imports	1,275	1,363	1,404	1,292	1,473	181	14.0
	Trade balance	-992	-1,081	-1,122	-1,026	-1,184	-157	-15.3
MS016A	Brooms and brushes:							
	Exports	265	263	261	244	266	21	8.8
	Imports	1,070	1,137	1,180	1,060	1,195	135	12.8
	Trade balance	-804	-874	-919	-816	-930	-114	-14.0
MS016B	Hair grooming articles, non-electric (except brushes):							
	Exports	18	19	20	22	24	2	10.7
	Imports	205	226	223	232	278	46	19.7
	Trade balance	-187	-207	-203	-211	-254	-43	-20.6

See footnote(s) at end of table.

TABLE AP.7 Miscellaneous manufactures: U.S. trade for industry/commodity groups and subgroups, 2006-10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MS017	Works of art and miscellaneous manufactured goods:							
	Exports	3,837	5,011	6,064	5,169	3,680	-1,489	-28.8
	Imports	11,228	13,359	11,849	8,621	10,325	1,705	19.8
	Trade balance	-7,392	-8,347	-5,785	-3,452	-6,645	-3,194	-92.5
MS018	Apparel fasteners:							
	Exports	154	147	127	109	143	35	32.0
	Imports	83	90	89	60	77	16	26.8
	Trade balance	71	57	38	48	67	19	38.4
MS019	Arms, ammunition, and armored vehicles:							
	Exports	3,616	4,097	3,939	4,292	4,892	600	14.0
	Imports	2,240	2,976	3,280	4,076	3,988	-88	-2.2
	Trade balance	1,376	1,121	659	216	905	689	318.7
MS019A	Small arms and ammunition:							
	Exports	905	1,204	1,116	1,115	1,311	196	17.6
	Imports	1,389	1,776	1,884	2,304	2,136	-168	-7.3
	Trade balance	-484	-572	-768	-1,189	-824	365	30.7

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

TABLE AP.8 Machinery: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MT001	Pumps for liquids:							
	Exports	3,565	4,174	4,937	4,238	5,073	835	19.7
	Imports	3,952	4,452	4,934	3,746	4,915	1,169	31.2
	Trade balance	-386	-277	3	492	158	-334	-68.0
MT002	Air-conditioning equipment and parts:							
	Exports	6,861	7,061	7,830	6,911	7,857	946	13.7
	Imports	10,748	11,266	10,859	8,576	10,695	2,119	24.7
	Trade balance	-3,886	-4,205	-3,029	-1,665	-2,838	-1,173	-70.5
MT003	Industrial thermal-processing equipment and furnaces:							
	Exports	3,540	3,731	4,493	3,489	3,993	504	14.5
	Imports	2,853	3,356	4,094	3,648	3,365	-283	-7.8
	Trade balance	687	375	399	-160	628	788	([a])
MT004	Household appliances, including commercial applications:							
	Exports	6,515	6,915	7,298	5,576	6,308	732	13.1
	Imports	16,574	17,904	18,350	16,608	19,731	3,124	18.8
	Trade balance	-10,059	-10,989	-11,053	-11,031	-13,423	-2,392	-21.7
MT004A	Major household appliances and parts:							
	Exports	2,309	2,409	2,487	1,875	1,977	102	5.4
	Imports	5,684	6,383	6,440	5,964	7,113	1,149	19.3
	Trade balance	-3,375	-3,975	-3,953	-4,089	-5,136	-1,047	-25.6
MT005	Centrifuges and filtering and purifying equipment:							
	Exports	4,060	4,788	5,290	4,582	5,035	454	9.9
	Imports	3,871	4,755	5,259	3,886	4,653	768	19.8
	Trade balance	189	33	31	696	382	-314	-45.1
MT006	Wrapping, packaging, and can-sealing machinery:							
	Exports	777	787	863	722	758	37	5.1
	Imports	1,966	2,206	2,282	1,625	1,808	183	11.3
	Trade balance	-1,188	-1,419	-1,419	-903	-1,050	-147	-16.2
MT007	Scales and weighing machinery:							
	Exports	155	174	192	194	185	-8	-4.3
	Imports	604	639	594	529	663	133	25.2
	Trade balance	-450	-465	-403	-336	-477	-141	-42.1
MT008	Mineral processing machinery:							
	Exports	1,064	1,220	1,489	1,193	1,405	212	17.8
	Imports	1,164	1,277	1,213	656	752	96	14.7
	Trade balance	-100	-57	276	537	653	116	21.6
MT009	Farm and garden machinery and equipment:							
	Exports	7,085	8,191	10,454	7,667	8,653	987	12.9
	Imports	6,356	6,167	6,932	4,977	5,887	909	18.3
	Trade balance	730	2,024	3,522	2,689	2,767	78	2.9

See footnote(s) at end of table.

TABLE AP.8 Machinery: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MT010	Industrial food-processing and related machinery:							
	Exports	644	797	947	763	877	113	14.8
	Imports	853	949	882	741	825	84	11.3
	Trade balance	-209	-151	66	23	52	29	128.3
MT011	Pulp, paper, and paperboard machinery:							
	Exports	712	769	829	616	643	27	4.3
	Imports	1,086	1,271	1,200	830	950	120	14.4
	Trade balance	-374	-501	-371	-214	-307	-93	-43.5
MT012	Printing and related machinery:							
	Exports	1,526	1,505	1,877	1,414	1,633	220	15.5
	Imports	6,554	3,376	2,406	1,373	1,252	-121	-8.8
	Trade balance	-5,029	-1,871	-529	41	381	341	836.4
MT013	Textile machinery:							
	Exports	1,009	1,018	880	642	800	158	24.5
	Imports	1,264	1,290	1,313	843	1,190	346	41.1
	Trade balance	-255	-272	-433	-201	-389	-189	-93.8
MT014	Metal rolling mills:							
	Exports	351	394	516	486	524	39	8.0
	Imports	352	322	488	523	382	-141	-27.0
	Trade balance	-1	72	28	-37	143	180	[a]
MT015	Metal cutting machine tools:							
	Exports	2,205	2,026	2,313	1,524	1,883	360	23.6
	Imports	4,092	4,009	4,654	2,173	2,529	356	16.4
	Trade balance	-1,887	-1,983	-2,341	-650	-646	4	0.6
MT016	Machine tool accessories:							
	Exports	304	403	435	318	399	81	25.5
	Imports	514	588	644	438	568	130	29.7
	Trade balance	-210	-185	-210	-120	-169	-49	-40.8
MT017	Metal forming machine tools:							
	Exports	957	1,015	1,164	927	1,175	247	26.7
	Imports	1,335	1,315	1,368	816	847	31	3.8
	Trade balance	-378	-300	-204	111	328	216	194.2
MT018	Non-metalworking machine tools:							
	Exports	1,159	1,011	885	582	730	148	25.4
	Imports	1,776	1,861	1,674	1,287	1,090	-198	-15.4
	Trade balance	-617	-850	-789	-705	-359	346	49.0
MT019	Semiconductor manufacturing equipment and robotics:							
	Exports	14,733	17,476	12,385	8,687	16,862	8,175	94.1
	Imports	5,612	8,990	7,966	6,002	9,461	3,459	57.6
	Trade balance	9,121	8,485	4,420	2,685	7,401	4,717	175.7

See footnote(s) at end of table.

TABLE AP.8 Machinery: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MT019A	Semiconductor manufacturing equipment:							
	Exports	14,232	16,974	11,901	8,278	16,465	8,187	98.9
	Imports	4,902	8,397	7,370	5,598	8,898	3,299	58.9
	Trade balance	9,330	8,578	4,531	2,680	7,567	4,887	182.4
MT020	Taps, cocks, valves, and similar devices:							
	Exports	5,010	5,757	6,427	5,929	7,071	1,142	19.3
	Imports	8,942	9,628	9,760	7,542	9,661	2,119	28.1
	Trade balance	-3,932	-3,871	-3,333	-1,613	-2,590	-977	-60.5
MT021	Mechanical power transmission equipment:							
	Exports	1,639	1,847	2,023	1,713	2,177	464	27.1
	Imports	3,439	3,850	4,320	3,047	3,672	624	20.5
	Trade balance	-1,800	-2,003	-2,297	-1,334	-1,494	-160	-12.0
MT022	Boilers, turbines, and related machinery:							
	Exports	1,130	1,235	1,522	1,773	1,643	-130	-7.4
	Imports	1,001	1,542	1,773	1,899	1,614	-285	-15.0
	Trade balance	129	-306	-250	-126	29	155	([a])
MT023	Electric motors, generators, and related equipment:							
	Exports	5,997	6,685	8,128	6,743	7,584	841	12.5
	Imports	10,305	12,358	12,888	10,075	10,338	263	2.6
	Trade balance	-4,309	-5,673	-4,760	-3,332	-2,754	578	17.3
MT024	Electrical transformers, static converters, and inductors:							
	Exports	2,380	2,743	2,835	2,416	2,759	343	14.2
	Imports	6,989	8,179	8,891	7,577	8,999	1,422	18.8
	Trade balance	-4,608	-5,436	-6,056	-5,162	-6,240	-1,079	-20.9
MT025	Portable electric handtools:							
	Exports	165	153	139	110	141	32	28.8
	Imports	2,478	2,473	2,349	2,140	2,431	291	13.6
	Trade balance	-2,313	-2,320	-2,210	-2,031	-2,290	-259	-12.8
MT026	Nonelectrically powered handtools:							
	Exports	1,148	1,085	1,105	814	917	103	12.6
	Imports	1,513	1,433	1,355	1,017	1,404	387	38.1
	Trade balance	-365	-347	-250	-203	-487	-285	-140.6
MT027	Electric lamps (bulbs) and portable electric lights:							
	Exports	823	812	807	668	752	84	12.5
	Imports	2,375	2,879	2,745	2,281	2,705	424	18.6
	Trade balance	-1,552	-2,068	-1,938	-1,613	-1,953	-340	-21.1
MT028	Welding and soldering equipment:							
	Exports	1,165	932	1,087	675	879	203	30.1
	Imports	1,353	950	951	654	775	121	18.5
	Trade balance	-189	-19	136	22	104	82	381.8

See footnote(s) at end of table.

TABLE AP.8 Machinery: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
MT029	Nonautomotive insulated electrical wire and related products:							
	Exports	4,110	4,586	4,733	3,727	4,790	1,063	28.5
	Imports	6,071	6,640	6,463	4,540	6,025	1,485	32.7
	Trade balance	-1,961	-2,054	-1,730	-813	-1,235	-422	-51.9
MT030	Miscellaneous machinery:							
	Exports	9,509	8,982	10,805	8,510	9,011	501	5.9
	Imports	10,527	9,474	10,284	7,717	8,668	951	12.3
	Trade balance	-1,017	-492	521	793	343	-450	-56.7
MT031	Molds and molding machinery:							
	Exports	2,136	1,965	2,076	1,801	1,841	40	2.2
	Imports	4,290	3,280	3,205	2,294	2,617	322	14.0
	Trade balance	-2,153	-1,315	-1,130	-494	-775	-282	-57.1

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Not meaningful for purposes of comparison.

TABLE AP.9 Transportation equipment: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TE001	Aircraft engines and gas turbines:							
	Exports	21,631	25,780	28,638	9,457	8,786	-671	-7.1
	Imports	12,816	14,898	16,444	14,558	14,807	248	1.7
	Trade balance	8,815	10,882	12,194	-5,102	-6,021	-920	-18.0
TE002	Internal combustion piston engines, other than for aircraft:							
	Exports	15,930	17,039	16,984	11,556	16,199	4,642	40.2
	Imports	20,617	19,930	18,738	11,866	17,989	6,123	51.6
	Trade balance	-4,688	-2,891	-1,754	-310	-1,790	-1,480	-478.2
TE003	Forklift trucks and similar industrial vehicles:							
	Exports	2,172	2,939	3,333	1,576	2,163	587	37.3
	Imports	2,717	2,581	2,442	1,182	1,432	250	21.1
	Trade balance	-545	358	891	394	732	337	85.6
TE004	Construction and mining equipment:							
	Exports	19,038	24,425	29,603	19,777	22,010	2,233	11.3
	Imports	13,952	12,524	12,291	6,345	8,213	1,868	29.4
	Trade balance	5,085	11,901	17,312	13,432	13,797	365	2.7
TE005	Ball and rollers bearings:							
	Exports	1,841	1,992	2,223	1,701	2,212	512	30.1
	Imports	2,429	2,492	2,800	1,927	2,753	826	42.9
	Trade balance	-589	-500	-577	-226	-540	-314	-138.9
TE006	Primary cells and batteries and electric storage batteries:							
	Exports	2,801	2,948	2,716	2,162	2,712	550	25.5
	Imports	3,075	3,255	3,628	2,985	3,701	716	24.0
	Trade balance	-274	-308	-912	-823	-989	-166	-20.1
TE007	Ignition, starting, lighting, and other electrical equipment:							
	Exports	1,880	2,040	2,115	1,867	2,426	559	29.9
	Imports	5,122	5,546	5,319	4,066	5,588	1,522	37.4
	Trade balance	-3,242	-3,506	-3,204	-2,199	-3,162	-963	-43.8
TE008	Rail locomotive and rolling stock:							
	Exports	2,600	2,663	2,935	2,140	2,410	270	12.6
	Imports	1,742	1,668	1,803	1,251	1,405	154	12.3
	Trade balance	858	995	1,132	888	1,005	117	13.1
TE009	Motor vehicles:							
	Exports	44,437	52,739	56,898	35,963	48,940	12,977	36.1
	Imports	159,537	158,895	142,541	94,348	132,471	38,123	40.4
	Trade balance	-115,100	-106,155	-85,642	-58,386	-83,531	-25,145	-43.1
TE010	Certain motor-vehicle parts:							
	Exports	33,346	34,052	30,985	22,713	31,194	8,482	37.3
	Imports	53,307	55,619	49,190	35,296	51,903	16,607	47.1
	Trade balance	-19,961	-21,567	-18,205	-12,584	-20,709	-8,126	-64.6

See footnote(s) at end of table.

TABLE AP.9 Transportation equipment: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TE011	Powersport vehicles:							
	Exports	2,535	3,375	4,185	2,571	2,748	177	6.9
	Imports	5,870	5,208	5,343	2,988	2,317	-671	-22.4
	Trade balance	-3,335	-1,833	-1,157	-417	431	848	[a]
TE011A	Motorcycles and mopeds:							
	Exports	1,252	1,589	1,875	1,357	1,373	16	1.2
	Imports	4,449	3,903	3,921	2,341	1,618	-723	-30.9
	Trade balance	-3,197	-2,314	-2,046	-984	-246	738	75.0
TE012	Trailers, semi-trailers, and parts:							
	Exports	2,464	2,781	2,820	1,772	2,486	714	40.3
	Imports	1,778	1,648	1,387	906	1,202	296	32.6
	Trade balance	686	1,133	1,432	866	1,284	418	48.3
TE013	Aircraft, spacecraft, and related equipment:							
	Exports	64,374	73,406	69,516	77,700	73,949	-3,750	-4.8
	Imports	17,557	21,835	21,539	18,339	18,931	592	3.2
	Trade balance	46,817	51,571	47,977	59,361	55,019	-4,342	-7.3
TE014	Ships, tugs, pleasure boats, and similar vessels:							
	Exports	2,601	3,096	3,155	1,946	2,525	579	29.7
	Imports	2,146	2,084	1,862	1,510	1,804	294	19.5
	Trade balance	454	1,013	1,293	436	720	284	65.3
TE015	Motors and engines, except internal combustion, aircraft, or electric:							
	Exports	1,124	1,198	1,409	1,183	1,641	458	38.7
	Imports	1,594	2,195	3,370	2,240	2,431	191	8.5
	Trade balance	-470	-997	-1,962	-1,057	-789	268	25.3

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. In 2009, 60 export commodity classification (schedule B) codes covering all civilian aircraft, engines, equipment, and parts were consolidated into a single code by the U.S. Census Bureau. This reclassification may have accounted for some of the shifts in exports in the aircraft, spacecraft, and related equipment industry/commodity group and the engines and gas turbines industry/commodity group.

[a]Not meaningful for purposes of comparison.

TABLE AP.10 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2006–10

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TX001	Fibers and yarns, except raw cotton and raw wool:							
	Exports	3,780	4,041	4,344	3,496	4,444	948	27.1
	Imports	3,582	3,632	3,552	2,638	3,479	841	31.9
	Trade balance	198	409	792	857	965	107	12.5
TX002	Fabrics:							
	Exports	7,015	6,666	6,443	4,917	5,878	961	19.6
	Imports	6,202	6,343	5,891	4,410	5,444	1,034	23.4
	Trade balance	813	323	552	507	434	-72	-14.3
TX002A	Broadwoven fabrics:							
	Exports	2,210	1,822	1,630	1,261	1,417	157	12.4
	Imports	2,833	2,870	2,600	1,708	2,114	407	23.8
	Trade balance	-623	-1,048	-970	-447	-697	-250	-55.9
TX002B	Knit fabrics:							
	Exports	1,611	1,659	1,534	891	1,036	145	16.3
	Imports	965	876	779	652	727	74	11.4
	Trade balance	646	783	755	238	309	71	29.6
TX002C	Specialty fabrics:							
	Exports	506	459	442	374	405	31	8.3
	Imports	550	553	500	380	445	65	17.0
	Trade balance	-44	-94	-58	-7	-41	-34	-508.1
TX002D	Coated and other fabrics:							
	Exports	1,119	1,213	1,143	925	1,246	321	34.7
	Imports	1,021	1,078	1,042	864	1,168	304	35.1
	Trade balance	99	134	101	61	78	17	28.7
TX002E	Glass fiber fabrics:							
	Exports	178	211	248	219	237	18	8.3
	Imports	133	160	194	120	143	23	19.0
	Trade balance	44	52	54	99	94	-5	-4.8
TX002F	Other fabrics:							
	Exports	1,392	1,303	1,445	1,248	1,537	290	23.2
	Imports	701	806	776	685	847	162	23.6
	Trade balance	691	496	670	563	691	128	22.7
TX003	Carpets and rugs:							
	Exports	960	983	1,061	821	959	137	16.7
	Imports	2,127	2,111	1,902	1,475	1,732	257	17.4
	Trade balance	-1,167	-1,128	-841	-654	-773	-119	-18.2
TX004	Home furnishings:							
	Exports	442	465	456	363	398	34	9.5
	Imports	8,249	8,724	8,377	7,553	9,058	1,505	19.9
	Trade balance	-7,808	-8,260	-7,921	-7,190	-8,660	-1,471	-20.5
TX004A	Blankets:							
	Exports	30	25	29	23	20	-3	-13.5
	Imports	606	614	597	616	735	120	19.4
	Trade balance	-576	-589	-567	-593	-716	-123	-20.7

See footnote(s) at end of table.

TABLE AP.10 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TX004B	Pillowcases and sheets:							
	Exports	83	74	65	46	53	7	15.4
	Imports	2,204	2,352	2,261	1,938	2,447	509	26.2
	Trade balance	-2,121	-2,278	-2,197	-1,893	-2,394	-502	-26.5
TX004C	Table/kitchen linens and towels:							
	Exports	73	72	59	44	51	7	16.8
	Imports	1,951	2,114	2,123	1,852	2,151	298	16.1
	Trade balance	-1,879	-2,042	-2,064	-1,808	-2,099	-291	-16.1
TX004D	Curtains:							
	Exports	58	71	82	78	80	2	2.6
	Imports	1,088	1,094	1,029	991	1,101	110	11.1
	Trade balance	-1,030	-1,023	-947	-913	-1,021	-108	-11.8
TX004E	Bedspreads and other furnishing articles:							
	Exports	65	73	66	54	62	8	14.1
	Imports	1,424	1,403	1,236	1,112	1,383	271	24.3
	Trade balance	-1,359	-1,330	-1,170	-1,058	-1,321	-263	-24.8
TX004F	Pillows, cushions, and sleeping bags:							
	Exports	130	149	155	118	131	14	11.6
	Imports	971	1,143	1,129	1,042	1,240	198	19.0
	Trade balance	-841	-994	-974	-924	-1,108	-184	-19.9
TX004G	Tapestries and other wall hangings:							
	Exports	4	1	1	1	1	(a)	-28.4
	Imports	5	4	3	2	2	(a)	12.1
	Trade balance	-1	-3	-2	-1	-2	-1	-49.8
TX005	Apparel:							
	Exports	3,854	3,206	3,190	2,922	3,197	275	9.4
	Imports	79,299	81,366	79,031	69,457	78,501	9,045	13.0
	Trade balance	-75,445	-78,159	-75,841	-66,534	-75,304	-8,770	-13.2
TX005A	Men's and boys' suits and sports coats:							
	Exports	32	28	24	31	27	-5	-15.1
	Imports	1,336	1,331	1,237	949	1,014	65	6.8
	Trade balance	-1,304	-1,303	-1,213	-917	-987	-70	-7.6
TX005B	Men's and boys' coats and jackets:							
	Exports	71	64	69	61	73	13	21.0
	Imports	2,441	2,814	2,759	2,299	2,636	337	14.7
	Trade balance	-2,370	-2,750	-2,690	-2,239	-2,563	-324	-14.5
TX005C	Men's and boys' trousers:							
	Exports	292	231	217	216	234	17	7.9
	Imports	8,014	7,940	7,626	6,805	7,496	691	10.2
	Trade balance	-7,722	-7,709	-7,409	-6,589	-7,263	-674	-10.2
TX005D	Women's and girls' trousers:							
	Exports	268	212	247	240	277	37	15.3
	Imports	9,889	9,872	9,305	8,043	8,663	620	7.7
	Trade balance	-9,621	-9,660	-9,058	-7,802	-8,386	-583	-7.5

See footnote(s) at end of table.

TABLE AP.10 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TX005E	Shirts and blouses:							
	Exports	802	582	556	525	556	31	6.0
	Imports	25,073	26,035	24,876	21,962	24,728	2,767	12.6
	Trade balance	-24,272	-25,453	-24,320	-21,437	-24,172	-2,735	-12.8
TX005F	Sweaters:							
	Exports	35	35	43	27	33	6	21.8
	Imports	2,658	2,733	2,522	2,014	2,275	261	13.0
	Trade balance	-2,623	-2,698	-2,479	-1,987	-2,242	-255	-12.9
TX005G	Women's and girls' suits, skirts, and coats:							
	Exports	148	139	163	158	146	-12	-7.7
	Imports	6,663	6,346	5,851	4,739	5,121	382	8.1
	Trade balance	-6,515	-6,207	-5,688	-4,581	-4,975	-394	-8.6
TX005H	Women's and girls' dresses:							
	Exports	87	121	177	163	188	25	15.6
	Imports	1,841	2,900	3,176	3,098	3,679	580	18.7
	Trade balance	-1,753	-2,780	-2,999	-2,935	-3,490	-555	-18.9
TX005I	Robes, nightwear, and underwear:							
	Exports	394	203	109	97	127	30	30.6
	Imports	5,478	5,380	5,444	4,683	5,464	781	16.7
	Trade balance	-5,084	-5,177	-5,335	-4,586	-5,337	-751	-16.4
TX005J	Hosiery:							
	Exports	383	349	334	291	315	24	8.3
	Imports	1,459	1,521	1,565	1,509	1,831	322	21.3
	Trade balance	-1,076	-1,172	-1,231	-1,218	-1,516	-298	-24.4
TX005K	Body-supporting garments:							
	Exports	166	57	45	47	60	13	28.3
	Imports	2,071	2,016	1,994	1,850	2,247	396	21.4
	Trade balance	-1,905	-1,959	-1,949	-1,803	-2,186	-383	-21.2
TX005L	Neckwear, handkerchiefs, and scarves:							
	Exports	23	19	24	20	20	1	3.3
	Imports	656	651	724	758	834	76	10.0
	Trade balance	-633	-632	-701	-738	-813	-75	-10.2
TX005M	Gloves, including gloves for sports:							
	Exports	100	106	127	126	148	22	17.7
	Imports	2,989	3,160	3,658	3,234	3,874	641	19.8
	Trade balance	-2,889	-3,054	-3,531	-3,108	-3,727	-618	-19.9
TX005N	Headwear:							
	Exports	114	126	157	128	140	12	9.6
	Imports	1,621	1,602	1,598	1,357	1,652	295	21.8
	Trade balance	-1,506	-1,476	-1,441	-1,229	-1,512	-283	-23.0
TX005O	Leather apparel and accessories:							
	Exports	165	220	202	154	145	-9	-6.0
	Imports	1,496	1,344	1,091	841	934	93	11.0
	Trade balance	-1,331	-1,124	-890	-687	-789	-102	-14.8

See footnote(s) at end of table.

TABLE AP.10 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2006–10—*Continued*

Code	Industry/commodity groups and subgroups	2006	2007	2008	2009	2010	Change, 2009 to 2010 Absolute	Change, 2009 to 2010 Percent
		Million dollars						
TX005P	Fur apparel and other fur articles:							
	Exports	22	29	30	19	15	-4	-19.3
	Imports	274	221	170	136	158	22	16.0
	Trade balance	-253	-192	-140	-117	-143	-25	-21.7
TX005Q	Rubber, plastic, and coated-fabric apparel:							
	Exports	165	141	155	173	186	13	7.6
	Imports	382	387	368	445	603	158	35.6
	Trade balance	-217	-247	-213	-272	-417	-145	-53.4
TX005R	Nonwoven apparel:							
	Exports	25	65	75	77	93	16	20.2
	Imports	479	488	547	500	554	54	10.8
	Trade balance	-454	-423	-473	-423	-461	-39	-9.1
TX005S	Other wearing apparel:							
	Exports	564	481	437	369	413	45	12.1
	Imports	4,479	4,623	4,518	4,235	4,739	503	11.9
	Trade balance	-3,916	-4,143	-4,082	-3,867	-4,326	-459	-11.9
TX006	Miscellaneous textile products:							
	Exports	2,037	2,174	2,310	2,134	2,474	340	16.0
	Imports	5,104	5,502	5,575	5,047	5,984	937	18.6
	Trade balance	-3,067	-3,328	-3,265	-2,914	-3,510	-597	-20.5
FW001	Footwear:							
	Exports	573	578	673	620	728	107	17.3
	Imports	19,038	19,270	19,451	17,666	20,710	3,044	17.2
	Trade balance	-18,465	-18,692	-18,778	-17,046	-19,982	-2,937	-17.2

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

Note: The codes shown above are used by the U.S. International Trade Commission to identify major groupings and subgroupings of imported and exported products for trade monitoring purposes. Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data.

[a]Less than $500,000.