# Shifts in U.S. Merchandise Trade 2012


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**United States International Trade Commission**

# U.S. International Trade Commission

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# U.S. International Trade Commission

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# Shifts in U.S. Merchandise Trade
# 2012 Annual Report

Investigation No. 332-345

**Publication 4425**

**September 2013**

*This report was prepared principally by the Office of Industries*

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# Part I: U.S. Merchandise Trade and Overall Economic Performance

This section of the report analyzes U.S. trade and overall economic performance with respect to merchandise from 2011 to 2012. It also summarizes overall U.S. trade performance for nine merchandise sectors in 2012 and compares it with that for 2011. Coverage of these nine sectors includes changes in U.S. exports, imports, and trade balances, broken down by sectors (and in some cases subsectors) and trade partners.

# Introduction

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

Unlike previous *Trade Shifts* reports, this year's edition is available exclusively online in both an HTML format and a PDF. The HTML version provides charts that link directly to summary tables, which reveal important shifts in U.S. bilateral trade, highlight leading changes in industry sectors for each of the trading partners discussed, and identify shifts in various subsectors that influenced overall sector trade in 2012. The PDF version of this section provides the summary tables as part of the text, along with the charts. The report is divided into four parts:

**Part I: U.S. Merchandise Trade and Overall Economic Performance** analyzes the overall economic performance of nine U.S. merchandise trade sectors[1] from 2011 to 2012. 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 subsectors), and U.S. trading partners.

**Part II: Bilateral Trade** examines the shifts in U.S. trade with five significant U.S. trade partners—China, the European Union 27 (EU), Japan, Mexico, and Russia. Countries were included based on the volume of bilateral trade conducted with the United States and/or the relative magnitude of bilateral trade shifts in 2012. For example, the EU, China, Mexico, and Japan are the United States' largest, third-largest, fourth-largest, and fifth-largest trading partners, respectively.[2] In addition to being leading trading partners of the United States, Japan and the EU both registered relatively significant trade shifts in the U.S. merchandise trade balance in 2012. Russia, which is not a leading U.S. trading partner, was selected for this study because of the large increase in its trade with the United States during 2012.

**Part III: Commodities Trade** surveys nine merchandise sectors, pointing out significant shifts in trade within each sector, and lists the absolute and percentage changes in bilateral trade revealed by a year-on-year comparison of 2011 and 2012.[3] The sectors addressed in this report are agricultural products; chemicals and related products; electronic products; energy-related products; forest products; machinery; minerals and metals; textiles, apparel, and footwear; and transportation equipment.

[1] The nine sectors are agricultural products; chemicals and related products; electronic products; energy-related products; forest products; machinery; minerals and metals; textiles, apparel, and footwear; and transportation equipment. Because trade in footwear is relatively limited, this sector has been included with the textiles and apparel discussion for the purpose of analysis.

[2] Canada remained the United States' second-largest trading partner in 2012. While there were no substantial shifts in bilateral trade between the United States and Canada, this trade is briefly discussed in the *U.S. Trade by Industry Sector and Selected Trading Partners* section of this report.

[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 sectors and subsectors. These groups are aggregated into the nine sectors analyzed in this report.

**Part IV: Special Topics Chapter** examines U.S. import shifts during 2008–12 under various trade preference programs, including the African Growth and Opportunity Act, Andean Trade Preference Act, Caribbean Basin Initiative, and the Generalized System of Preferences. Specifically, it considers fluctuations in the share of imports from eligible countries receiving preferential treatment; shifts in the composition of merchandise imported under the provisions of these programs; and changes in eligibility and other factors affecting the use of the programs.

# Overall Economic Performance

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In 2012, the U.S. trade deficit grew by 1 percent to $897.8 billion, as growth observed in merchandise imports exceeded the growth in domestic exports by $10.0 billion (table US.1). While the modest economic recovery of the past few years continued to contribute to an expansion in overall trade, that expansion was limited.[1] For example, the 4.2 percent increase in U.S. exports and 2.9 percent increase in U.S. imports in 2012 were considerably less than in 2011, when U.S. exports and imports each grew by more than 15 percent. Recent macroeconomic difficulties affecting several U.S. trading partners appear to have curbed global trade expansion.

While growth in the U.S. economy improved somewhat in 2012, it continued to be relatively slow. Real gross domestic product (GDP) rose by about 2.8 percent that year, compared with 1.8 percent in 2011 and 2.4 percent in 2010. In addition to the slowing growth rate of imports relative to exports, GDP growth in 2012 can be attributed, in part, to increases in both private inventory and residential fixed investment, along with smaller reductions in government spending at all levels compared to previous years.[2] At the same time, average U.S. unemployment declined by 0.7 percentage points between 2011 and 2012 to 7.8 percent, the lowest rate since January 2009.[3]

Declining growth rates in U.S. exports in 2012 resulted, in part, from slow growth and recessionary environments in multiple major U.S. trading partners. For instance, both Japan and the euro area[4] fell back into recession in 2011 and 2012, respectively, affecting both large and small trading partners—including the United States—by weakening import demand.[5]

Japan, however, while still recovering from the effects of the 2011 earthquake, tsunami, and nuclear disaster, experienced real GDP growth of 2.0 percent in 2012, after suffering a 0.6 percent contraction in GDP in 2011. In contrast, the euro area economy moved from GDP growth of 1.5 percent in 2011 to a 0.4 percent contraction in 2012. The real GDP growth rate in other large trading economies, such as Canada, Mexico, Brazil, India, Russia, and China, also fell during 2011–12.[6] Despite the challenging economic climate, however, foreign demand for certain U.S. products, especially transportation equipment, remained strong.

[1] CEA, *2013 Economic Report of the President*, 2013, 209–10.
[2] BEA, "Gross Domestic Product, 4th Quarter and Annual 2012," March 28, 2013.
[3] BLS, Labor Force Statistics from the Current Population Survey (accessed April 12, 2013).
[4] The euro area refers to the 17 European Union member states which have adopted the euro as their currency.
[5] CEA, *2013 Economic Report of the President*, 2013, 210–14.
[6] CEA, *2013 Economic Report of the President*, 2013, table B112, 338.

**TABLE US.1 U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 121,077 | 103,184 | 121,473 | 145,724 | 149,293 | 3,569 | 2.4 |
| Forest products | 35,362 | 30,489 | 36,381 | 39,274 | 38,309 | -965 | -2.5 |
| Chemicals and related products | 189,784 | 165,948 | 197,026 | 213,983 | 217,452 | 3,469 | 1.6 |
| Energy-related products | 81,737 | 59,827 | 85,468 | 134,088 | 142,294 | 8,206 | 6.1 |
| Textiles and apparel | 17,805 | 14,653 | 17,350 | 19,433 | 18,184 | -1,249 | -6.4 |
| Footwear | 673 | 620 | 728 | 832 | 824 | -7 | -0.9 |
| Minerals and metals | 119,753 | 84,351 | 109,910 | 140,640 | 141,543 | 903 | 0.6 |
| Machinery | 106,796 | 85,427 | 104,379 | 115,193 | 122,404 | 7,211 | 6.3 |
| Transportation equipment | 257,516 | 194,082 | 222,403 | 257,589 | 285,772 | 28,183 | 10.9 |
| Electronic products | 174,781 | 142,938 | 159,833 | 164,537 | 167,003 | 2,466 | 1.5 |
| Miscellaneous manufactures | 27,821 | 24,765 | 25,542 | 26,759 | 27,914 | 1,154 | 4.3 |
| Special provisions | 36,716 | 30,460 | 41,638 | 41,123 | 42,218 | 1,095 | 2.7 |
| Total | 1,169,821 | 936,745 | 1,122,131 | 1,299,176 | 1,353,211 | 54,035 | 4.2 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 96,238 | 87,301 | 97,572 | 115,585 | 122,400 | 6,815 | 5.9 |
| Forest products | 42,291 | 31,511 | 35,749 | 36,271 | 37,116 | 845 | 2.3 |
| Chemicals and related products | 223,492 | 182,515 | 218,020 | 254,229 | 252,153 | -2,077 | -0.8 |
| Energy-related products | 472,325 | 260,878 | 338,184 | 430,796 | 398,441 | -32,355 | -7.5 |
| Textiles and apparel | 104,329 | 90,581 | 104,199 | 113,611 | 112,631 | -980 | -0.9 |
| Footwear | 19,451 | 17,666 | 20,710 | 22,559 | 23,745 | 1,185 | 5.3 |
| Minerals and metals | 184,994 | 117,025 | 156,199 | 192,550 | 195,589 | 3,039 | 1.6 |
| Machinery | 142,096 | 110,061 | 130,469 | 154,948 | 166,237 | 11,288 | 7.3 |
| Transportation equipment | 288,697 | 199,808 | 266,946 | 306,579 | 358,409 | 51,831 | 16.9 |
| Electronic products | 351,624 | 311,420 | 377,617 | 400,592 | 413,767 | 13,175 | 3.3 |
| Miscellaneous manufactures | 100,837 | 84,437 | 97,346 | 99,415 | 104,443 | 5,027 | 5.1 |
| Special provisions | 64,109 | 55,960 | 55,600 | 59,815 | 66,105 | 6,290 | 10.5 |
| Total | 2,090,483 | 1,549,163 | 1,898,610 | 2,186,951 | 2,251,035 | 64,084 | 2.9 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | 24,839 | 15,883 | 23,901 | 30,139 | 26,893 | -3,246 | -10.8 |
| Forest products | -6,930 | -1,022 | 632 | 3,003 | 1,193 | -1,810 | -60.3 |
| Chemicals and related products | -33,708 | -16,567 | -20,994 | -40,246 | -34,701 | 5,546 | 13.8 |
| Energy-related products | -390,588 | -201,051 | -252,716 | -296,708 | -256,147 | 40,561 | 13.7 |
| Textiles and apparel | -86,523 | -75,928 | -86,849 | -94,178 | -94,447 | -269 | -0.3 |
| Footwear | -18,778 | -17,046 | -19,982 | -21,728 | -22,920 | -1,193 | -5.5 |
| Minerals and metals | -65,240 | -32,674 | -46,288 | -51,910 | -54,046 | -2,136 | -4.1 |
| Machinery | -35,300 | -24,634 | -26,090 | -39,755 | -43,833 | -4,078 | -10.3 |
| Transportation equipment | -31,181 | -5,726 | -44,543 | -48,989 | -72,637 | -23,648 | -48.3 |
| Electronic products | -176,843 | -168,483 | -217,784 | -236,055 | -246,764 | -10,709 | -4.5 |
| Miscellaneous manufactures | -73,015 | -59,672 | -71,804 | -72,656 | -76,529 | -3,873 | -5.3 |
| Special provisions | -27,393 | -25,500 | -13,962 | -18,692 | -23,887 | -5,194 | -27.8 |
| Total | -920,661 | -612,419 | -776,479 | -887,775 | -897,824 | -10,049 | -1.1 |

*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 free alongside ship (f.a.s.) value, U.S. port of export. Calculations based on unrounded data. Sectors are ordered by the level of processing of the products classified within each section, from the least to the most heavily processed.

In terms of domestic demand, the growth in value of U.S. imports in 2012 likely reflected appreciation of the U.S. dollar relative to the currencies of other leading markets. The trade-weighted value of the dollar compared to the nominal Broad Index was 2.7 percent higher, on average, in 2012 than in 2011.[7] Appreciation relative to major trading partners implies a decline in the cost of imports, though this effect may have been muted by slow growth throughout the global economy.

As will be discussed in the next section, U.S. demand for transportation equipment and electronic products was relatively high in 2012, reflecting the continued U.S. economic recovery, increased consumer optimism, and greater credit availability.[8] On the other hand, overall import growth was moderated by significant reductions in both the value and quantity of key commodities within the energy-related products sector, including crude petroleum and petroleum products. Reasons for these declines varied, but included near-record domestic production of these commodities and reduced U.S. demand.

[7] This index groups the currencies of each major U.S. trading partner; collectively, these partners account for about 90 percent of U.S. trade. CEA, *2013 Economic Report of the President*, table B110, 336.

[8] Woodall and Klayman, "Auto Industry Posts Best U.S. Sales Year," January 3, 2013; Plache and Krebs, "Auto Industry Trends for 2013," December 20, 2012. For more information, see the section on transportation equipment in part 2 of this report.

# U.S. Trade by Industry, Sector, and Selected Trading Partners

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## *U.S. Trade Balance*

In 2012, seven of the nine U.S. merchandise sectors addressed in this report—all except the agricultural and forest products sectors—registered trade deficits, contributing to a 1 percent increase in the overall merchandise trade deficit to $897.8 billion (figure US.1). The most significant deficit expansions occurred in the transportation equipment ($23.6 billion increase) and electronic products sectors ($10.7 billion increase), while significant reductions in the deficits of the energy-related ($40.6 billion reduction) and chemicals and related products ($5.5 billion) sectors prevented further expansion of the overall trade deficit.

**FIGURE US.1** U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, 2008–12


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

The sharp increase in the trade deficit for the transportation equipment sector in 2012 reflected the continuing U.S. economic recovery and greater availability of credit, which stimulated demand for motor vehicles in particular.[9] Electronic products recorded the second-largest deficit ($246.8 billion), as well as the second-largest absolute deficit increase of $10.7 billion. One reason for the trade deficit expansion in this sector was heightened consumer demand for smartphones and mobile computing devices, the majority of which are manufactured in China. In contrast, the energy-related products sector witnessed the largest percentage reduction of its trade deficit in more than 10 years amid stable energy prices, increased U.S. production and exports of petroleum products, and reduced domestic imports of key commodities in this sector, especially crude petroleum and petroleum-related products.

## *U.S. Exports*

In 2012, U.S. exports increased by $54.0 billion (4.2 percent) to $1,353.2 billion, as exports in seven of the nine sectors reviewed in this report increased. The greatest absolute increase occurred in the transportation equipment sector, where exports rose by $28.1 billion (11 percent). Increased exports of aircraft equipment, motor vehicles, and associated parts accounted for $20 billion of this increase (table US.2). Higher foreign demand for commercial aircraft and motor vehicles in key markets such as Canada, Mexico, and China translated into significant expanded exports of transportation equipment.[10]

The second-highest absolute increase in exports was in the energy-related products sector, which grew by $8.2 billion (6 percent) to $142.3 billion in 2012. Growth in this sector reflected an increase in the quantity of U.S. exports of petroleum products and of coal, coke, and other carbonaceous materials. Reduced domestic consumption of petroleum products, coupled with higher U.S. production of these commodities and strong global demand for distillate fuel oils in 2012, helped to power the expansion of U.S. petroleum products exports.[11] Similarly, greater U.S. exports of coal were attributed to stronger foreign demand for coking coals, in particular, which are considered to be among the highest-quality coals used for steelmaking.

U.S. exports of machinery, which recorded the third-largest export shift by sector, rose by $7.2 billion to $122.4 billion in 2012 and reflected heightened demand for farm and garden machinery in Canada, Australia, and Brazil.[12] The average depreciation of the U.S. dollar relative to these countries' currencies rendered these goods more competitive within these markets.

[9] Woodall and Klayman, "Auto Industry Posts Best U.S. Sales Year," January 3, 2013.

[10] For more information, see the transportation equipment sector discussion in part 2 of this report.

[11] For more information, see the energy-related products discussion in part 3 of this report.

[12] CNH Global, "Form 20-F," December 31, 2012, 45. Although the trade-weighted value of the dollar appreciated relative to the nominal Broad Index in 2012, the U.S. dollar depreciated on average relative to Canada, Australia, and Brazil during this time.

**TABLE US.2 All merchandise sectors: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Aircraft, spacecraft, and related equipment (TE013) | 69,516 | 77,700 | 73,949 | 82,028 | 95,210 | 13,182 | 16.1 |
| Motor vehicles (TE009) | 56,898 | 35,963 | 48,940 | 59,454 | 65,669 | 6,215 | 10.5 |
| Certain motor-vehicle parts (TE010) | 30,985 | 22,713 | 31,194 | 35,714 | 37,806 | 2,092 | 5.9 |
| Construction and mining equipment (TE004) | 29,603 | 19,777 | 22,010 | 27,971 | 29,959 | 1,988 | 7.1 |
| Petroleum products (EP005) | 58,765 | 42,048 | 61,131 | 100,425 | 111,355 | 10,930 | 10.9 |
| **Decreases** | | | | | | | |
| Fibers and yarns, except raw cotton and raw wool (TX001) | 4,344 | 3,496 | 4,444 | 5,610 | 5,059 | -552 | -9.8 |
| **All other** | 919,708 | 735,049 | 880,462 | 987,974 | 1,008,154 | 20,180 | 2.0 |
| Total | 1,169,821 | 936,745 | 1,122,131 | 1,299,176 | 1,353,211 | 54,035 | 4.2 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Motor vehicles (TE009) | 142,541 | 94,348 | 132,471 | 144,426 | 171,556 | 27,130 | 18.8 |
| Certain motor-vehicle parts (TE010) | 49,190 | 35,296 | 51,903 | 59,875 | 69,605 | 9,729 | 16.2 |
| Electronic products: | | | | | | | |
| Telecommunications equipment (EL002) | 64,331 | 60,299 | 74,065 | 79,771 | 83,831 | 4,060 | 5.1 |
| Computers, peripherals, and parts (EL017) | 102,338 | 95,391 | 118,898 | 121,300 | 123,283 | 1,983 | 1.6 |
| **Decreases** | | | | | | | |
| Energy-related products: | | | | | | | |
| Crude petroleum (EP004) | 274,950 | 150,809 | 196,862 | 246,894 | 228,944 | -17,950 | -7.3 |
| Natural gas and components (EP006) | 52,757 | 26,840 | 31,001 | 34,616 | 28,193 | -6,423 | -18.6 |
| Petroleum products (EP005) | 126,441 | 72,581 | 97,889 | 135,170 | 129,773 | -5,397 | -4.0 |
| **All other** | 1,277,934 | 1,013,599 | 1,195,520 | 1,364,899 | 1,415,850 | 50,952 | 3.7 |
| Total | 2,090,483 | 1,549,163 | 1,898,610 | 2,186,951 | 2,251,035 | 64,084 | 2.9 |

*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. 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 account 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.

## *U.S. Imports*

In 2012, the value of total U.S. imports rose by 3 percent to $2,251.0 billion, with the largest absolute shifts occurring in the transportation equipment sector (up $51.8 billion to $358.4 billion), energy-related products (down $32.4 billion to $398.4 billion), and electronic products (up $13.2 billion to $413.8 billion). As noted above, increased U.S. imports of transportation equipment—especially motor vehicles—principally stemmed from the continuing U.S. economic recovery in 2012, which translated into greater consumer access to financing for durable consumer goods, such as passenger vehicles.[13] Canada, Japan, and Mexico remained the largest suppliers of these goods to the U.S. market, together accounting for more than one-third of all U.S. imports of transportation equipment. As noted earlier, import growth was buoyed by the 2.7 percent increase average trade-weighted value of the U.S. dollar relative to leading market currencies during 2012.

The increase in U.S. imports of electronic products owed much to the strong market for telecommunications equipment, imports of which grew by $4.1 billion (5.1 percent) (table US.2). More specifically, strong U.S. consumer demand for Internet-enabled "smart" cellphones—such as the Apple iPhone 5—accounted for half of all telecommunications equipment imports in 2012.[14] China accounted for 60 percent of U.S. telecommunications imports and remained the largest supplier of these goods to the U.S. market.

As noted earlier, overall U.S. import growth was somewhat attenuated by significant reductions in imports of energy-related products. Reduced imports in this sector principally reflected lower domestic consumption of crude petroleum and higher U.S. production of this commodity. Canada remained the leading U.S. supplier of crude petroleum, representing 20 percent of the total value and 28 percent of the total volume of crude petroleum imports.

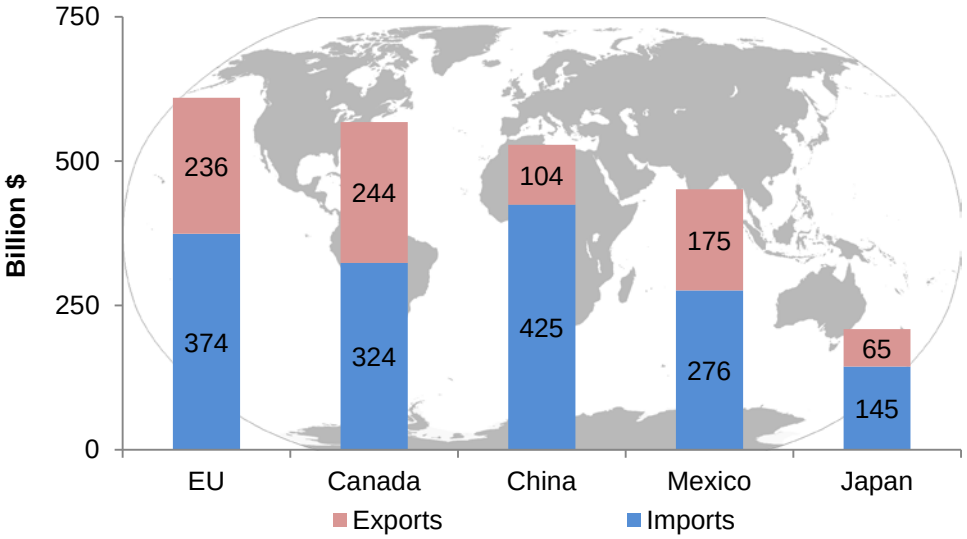
## *Shifts in U.S. Bilateral/Multilateral Trade among Leading Trading Partners*

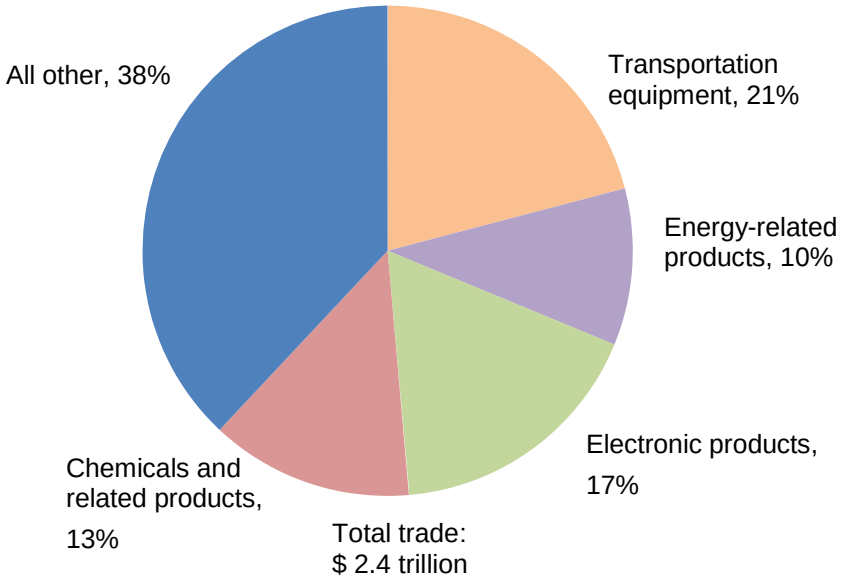
As mentioned earlier, in 2012 the United States' top five trading partners were the EU, Canada, China, Mexico, and Japan, with total trade largely driven by transportation equipment (figure US.2). Among these economies, the United States witnessed bilateral deficit increases with the EU (up $17.2 billion to $138.5 billion), China (up $19.8 billion to $321.4 billion), and Japan (up $13.4 billion to $79.9 billion) in 2012 (table US.3). However, it registered deficit reductions with Canada (down $2.9 billion to $79.7 billion) and Mexico (down $1.5 billion to $101.2 billion) (table US.3). Together, these trading partners accounted for 80 percent of the total U.S. trade deficit and 66 percent of total trade between the U.S. and the world.

[13] *Automotive News*, "U.S. Light Vehicle Sales by Nameplate," January 7, 2013; Cattan and Case, "Mexico to Boost Auto Output 38%," August 28, 2012; EIU, "USA: Automotive Report," October 1, 2012.

[14] Apple, "iPhone 5 First Weekend Sales Top Five Million," September 24, 2012.

**FIGURE US.2** In 2012, the EU was the United States' largest trading partner; total trade between the United States and its five leading trading partners was led by the transportation equipment sector




*Source:* Compiled from official statistics of the U.S. Department of Commerce. Map image courtesy of Wikia website, http://global-map-games.wikia.com/wiki/File:BlankMap-World-large-noborders.png.

*Note:* Export values are based on f.a.s. value, U.S. port of export.

**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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 222,424 | 171,695 | 205,956 | 233,774 | 244,199 | 10,425 | 4.5 |
| China | 67,166 | 65,124 | 85,746 | 96,898 | 103,508 | 6,610 | 6.8 |
| Mexico | 131,507 | 105,718 | 131,602 | 159,910 | 175,159 | 15,249 | 9.5 |
| Japan | 61,435 | 47,074 | 55,727 | 61,409 | 64,599 | 3,190 | 5.2 |
| Germany | 50,150 | 40,229 | 44,391 | 44,240 | 43,676 | -565 | -1.3 |
| United Kingdom | 49,061 | 41,990 | 44,005 | 49,984 | 48,293 | -1,692 | -3.4 |
| Korea | 33,074 | 27,074 | 36,836 | 41,311 | 40,004 | -1,307 | -3.2 |
| Saudi Arabia | 11,846 | 10,235 | 10,712 | 12,823 | 16,935 | 4,112 | 32.1 |
| Brazil | 29,027 | 22,135 | 30,157 | 37,275 | 37,252 | -23 | -0.1 |
| France | 26,748 | 24,367 | 24,421 | 25,361 | 27,491 | 2,131 | 8.4 |
| All other | 487,381 | 381,104 | 452,578 | 536,192 | 552,096 | 15,903 | 3.0 |
| Total | 1,169,821 | 936,745 | 1,122,131 | 1,299,176 | 1,353,211 | 54,035 | 4.2 |
| EU | 251,196 | 202,392 | 217,329 | 241,089 | 235,620 | -5,469 | -2.3 |
| OPEC | 57,645 | 46,750 | 50,050 | 59,461 | 75,855 | 16,394 | 27.6 |
| Latin America | 258,616 | 205,299 | 256,600 | 312,562 | 340,366 | 27,804 | 8.9 |
| Asia | 284,302 | 238,447 | 307,077 | 345,014 | 349,499 | 4,484 | 1.3 |
| Sub-Saharan Africa | 18,008 | 14,638 | 16,437 | 20,298 | 21,573 | 1,275 | 6.3 |
| U.S. imports for consumption | | | | | | | |
| Canada | 334,840 | 224,584 | 275,536 | 316,397 | 323,925 | 7,529 | 2.4 |
| China | 337,504 | 295,545 | 364,047 | 398,467 | 424,874 | 26,407 | 6.6 |
| Mexico | 216,328 | 176,309 | 228,824 | 262,671 | 276,408 | 13,737 | 5.2 |
| Japan | 139,112 | 96,002 | 119,938 | 127,901 | 144,538 | 16,637 | 13.0 |
| Germany | 95,828 | 69,790 | 80,886 | 96,539 | 105,084 | 8,545 | 8.9 |
| United Kingdom | 58,419 | 47,019 | 49,293 | 51,045 | 54,497 | 3,452 | 6.8 |
| Korea | 46,687 | 38,770 | 47,914 | 56,006 | 57,874 | 1,868 | 3.3 |
| Saudi Arabia | 54,283 | 21,366 | 30,911 | 45,130 | 52,306 | 7,176 | 15.9 |
| Brazil | 30,061 | 19,612 | 23,402 | 30,368 | 31,720 | 1,352 | 4.5 |
| France | 43,372 | 33,961 | 38,241 | 39,596 | 41,099 | 1,503 | 3.8 |
| All other | 734,049 | 526,207 | 639,620 | 762,832 | 738,710 | -24,122 | -3.2 |
| Total | 2,090,483 | 1,549,163 | 1,898,610 | 2,186,951 | 2,251,035 | 64,084 | 2.9 |
| EU | 363,667 | 278,104 | 314,880 | 362,419 | 374,134 | 11,715 | 3.2 |
| OPEC | 225,186 | 109,883 | 147,136 | 184,730 | 170,756 | -13,974 | -7.6 |
| Latin America | 374,538 | 283,049 | 358,048 | 429,290 | 443,139 | 13,848 | 3.2 |
| Asia | 711,690 | 583,910 | 718,322 | 792,540 | 844,754 | 52,214 | 6.6 |
| Sub-Saharan Africa | 86,082 | 47,159 | 64,351 | 74,019 | 49,591 | -24,428 | -33.0 |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -112,415 | -52,889 | -69,580 | -82,623 | -79,726 | 2,897 | 3.5 |
| China | -270,338 | -230,421 | -278,301 | -301,569 | -321,367 | -19,797 | -6.6 |
| Mexico | -84,821 | -70,591 | -97,222 | -102,761 | -101,249 | 1,512 | 1.5 |
| Japan | -77,677 | -48,928 | -64,211 | -66,492 | -79,939 | -13,446 | -20.2 |
| Germany | -45,677 | -29,561 | -36,495 | -52,299 | -61,408 | -9,109 | -17.4 |
| United Kingdom | -9,357 | -5,030 | -5,288 | -1,060 | -6,204 | -5,144 | -485.1 |
| Korea | -13,613 | -11,696 | -11,077 | -14,695 | -17,870 | -3,175 | -21.6 |
| Saudi Arabia | -42,437 | -11,131 | -20,199 | -32,307 | -35,371 | -3,064 | -9.5 |
| Brazil | -1,033 | 2,523 | 6,755 | 6,907 | 5,532 | -1,375 | -19.9 |
| France | -16,624 | -9,593 | -13,819 | -14,236 | -13,608 | 628 | 4.4 |
| All other | -246,668 | -145,103 | -187,042 | -226,640 | -186,614 | 40,025 | 17.7 |
| Total | -920,661 | -612,419 | -776,479 | -887,775 | -897,824 | -10,049 | -1.1 |

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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Absolute | Percent |
| | Million dollars | | | | | | |
| EU | -112,470 | -75,712 | -97,551 | -121,330 | -138,514 | -17,184 | -14.2 |
| OPEC | -167,541 | -63,133 | -97,086 | -125,268 | -94,901 | 30,368 | 24.2 |
| Latin America | -115,922 | -77,750 | -101,448 | -116,729 | -102,772 | 13,956 | 12.0 |
| Asia | -427,388 | -345,463 | -411,246 | -447,526 | -495,255 | -47,729 | -10.7 |
| Sub-Saharan Africa | -68,074 | -32,521 | -47,915 | -53,721 | -28,019 | 25,702 | 47.8 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

The expanding U.S. trade deficits with the EU and Japan were principally caused by greater U.S. imports of transportation equipment—especially motor vehicles. As previously stated, U.S. demand for motor vehicles grew significantly during 2012 amid a favorable lending climate and improvements in the U.S. economy. EU automobile producers benefited from increased U.S. demand for new car models with high fuel economy, while Japan retained its status as a leading supplier of motor vehicles to the United States in 2012.

China remained the United States' single largest source of imports by value. The United States' already sizable trade deficit with China expanded by $19.8 billion to $321.4 billion—the United States' largest bilateral deficit with any trading partner in 2012. Electronic products accounted for 40 percent of U.S. merchandise imports from China, reflecting that country's status as one of the world's principal manufacturers of computers, peripherals, and telecommunications equipment.

In contrast, during 2012, heightened demand for motor vehicles and associated parts in Canada and Mexico fueled U.S. exports of transportation equipment, resulting in a modest reduction in U.S. bilateral trade deficits with these two economies. Canada, Mexico, and United States have a highly integrated automobile industry, facilitated by their collective participation in the North American Free Trade Agreement (NAFTA), which provides duty-free access to parts and finished vehicles throughout these three economies. Multinational vehicle manufacturers with production facilities in Mexico commonly source parts duty-free from the United States, produce vehicles in Mexico—to take advantage of lower production costs—and export them duty-free into the United States and Canada.

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# Part II: Bilateral Trade

This part of the report analyzes shifts in trade between the United States and five significant trading partners (based on total trade, significant shifts in trade during 2011–12, or both)—China, the European Union, Japan, Mexico, and Russia.

# China

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $19.8 billion (7 percent) to $321.4 billion**
**U.S. exports: Increased by $6.6 billion (7 percent) to $103.5 billion**
**U.S. imports: Increased by $26.4 billion (7 percent) to $424.9 billion**

The U.S. trade deficit with China increased by $19.8 billion in 2012, as U.S. exports to and imports from China both increased by 7 percent over 2011 (figure CH.1 and table CH.1). The main contributors to the increasing trade deficit were growing bilateral deficits with China in electronic products (up by $12.0 billion), machinery (up by $4.6 billion), and minerals and metals (up by $3.2 billion). Only four U.S. industry sectors recorded a trade surplus with China in 2012: agricultural products, energy-related products, textiles and apparel, and transportation equipment. The sector with both the largest trade surplus and the largest increase in trade surplus was the agricultural products sector.

**FIGURE CH.1** China: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, 2008–12


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

**TABLE CH.1 China: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 12,811 | 13,762 | 18,232 | 20,089 | 27,266 | 7,176 | 35.7 |
| Forest products | 3,518 | 3,720 | 5,050 | 6,722 | 6,208 | -514 | -7.6 |
| Chemicals and related products | 9,885 | 10,643 | 13,344 | 15,021 | 14,205 | -817 | -5.4 |
| Energy-related products | 584 | 708 | 1,619 | 2,308 | 2,785 | 477 | 20.7 |
| Textiles and apparel | 940 | 846 | 1,083 | 1,240 | 1,182 | -58 | -4.7 |
| Footwear | 35 | 44 | 55 | 56 | 47 | -9 | -15.4 |
| Minerals and metals | 9,701 | 8,703 | 10,791 | 13,489 | 12,160 | -1,330 | -9.9 |
| Machinery | 6,628 | 5,424 | 7,903 | 8,946 | 8,539 | -407 | -4.5 |
| Transportation equipment | 9,659 | 9,193 | 12,519 | 15,827 | 17,494 | 1,667 | 10.5 |
| Electronic products | 12,375 | 11,133 | 13,493 | 11,889 | 12,331 | 442 | 3.7 |
| Miscellaneous manufactures | 367 | 362 | 354 | 425 | 458 | 33 | 7.7 |
| Special provisions | 663 | 585 | 1,301 | 886 | 834 | -52 | -5.8 |
| Total | 67,166 | 65,124 | 85,746 | 96,898 | 103,508 | 6,610 | 6.8 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 5,588 | 4,850 | 5,653 | 6,498 | 7,043 | 545 | 8.4 |
| Forest products | 7,371 | 6,281 | 7,123 | 7,333 | 8,080 | 747 | 10.2 |
| Chemicals and related products | 20,918 | 17,510 | 21,319 | 25,637 | 27,975 | 2,338 | 9.1 |
| Energy-related products | 2,025 | 305 | 495 | 620 | 390 | -230 | -37.0 |
| Textiles and apparel | 36,368 | 35,083 | 42,095 | 44,798 | 44,669 | -128 | -0.3 |
| Footwear | 14,444 | 13,415 | 15,727 | 16,677 | 17,026 | 349 | 2.1 |
| Minerals and metals | 28,975 | 19,146 | 22,208 | 25,258 | 27,170 | 1,912 | 7.6 |
| Machinery | 29,923 | 25,995 | 32,326 | 36,534 | 40,730 | 4,197 | 11.5 |
| Transportation equipment | 10,837 | 8,553 | 11,850 | 15,284 | 16,866 | 1,582 | 10.4 |
| Electronic products | 117,986 | 110,794 | 143,716 | 158,671 | 171,159 | 12,488 | 7.9 |
| Miscellaneous manufactures | 58,917 | 49,892 | 57,635 | 57,041 | 59,339 | 2,298 | 4.0 |
| Special provisions | 4,151 | 3,721 | 3,900 | 4,116 | 4,425 | 310 | 7.5 |
| Total | 337,504 | 295,545 | 364,047 | 398,467 | 424,874 | 26,407 | 6.6 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | 7,223 | 8,913 | 12,579 | 13,591 | 20,223 | 6,631 | 48.8 |
| Forest products | -3,853 | -2,561 | -2,073 | -612 | -1,872 | -1,260 | -206.0 |
| Chemicals and related products | -11,033 | -6,867 | -7,975 | -10,616 | -13,771 | -3,154 | -29.7 |
| Energy-related products | -1,441 | 403 | 1,125 | 1,689 | 2,395 | 706 | 41.8 |
| Textiles and apparel | -35,429 | -34,237 | -41,013 | -43,558 | -43,488 | 70 | 0.2 |
| Footwear | -14,409 | -13,371 | -15,671 | -16,622 | -16,979 | -358 | -2.2 |
| Minerals and metals | -19,274 | -10,443 | -11,416 | -11,769 | -15,011 | -3,242 | -27.5 |
| Machinery | -23,294 | -20,571 | -24,423 | -27,588 | -32,191 | -4,604 | -16.7 |
| Transportation equipment | -1,178 | 640 | 669 | 543 | 628 | 85 | 15.6 |
| Electronic products | -105,612 | -99,661 | -130,223 | -146,782 | -158,828 | -12,046 | -8.2 |
| Miscellaneous manufactures | -58,550 | -49,530 | -57,281 | -56,616 | -58,881 | -2,265 | -4.0 |
| Special provisions | -3,489 | -3,136 | -2,599 | -3,230 | -3,592 | -361 | -11.2 |
| Total | -270,338 | -230,421 | -278,301 | -301,569 | -321,367 | -19,797 | -6.6 |

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

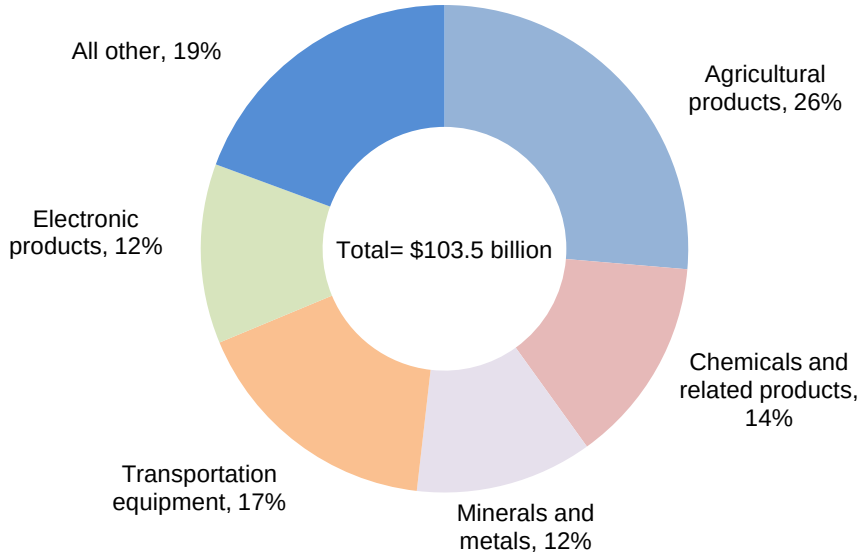
*Note:* Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. Calculations based on unrounded data. Sectors are ordered by the level of processing of the products classified therein.

## *U.S. Exports*

U.S. merchandise exports to China increased $6.6 billion (or 7 percent) to $103.5 billion in 2012. The three sectors that contributed the most to the growth of U.S. merchandise exports to China in 2012 were agricultural products, transportation equipment, and minerals and metals (figure CH.2). The largest and most rapidly increasing export sector in 2012 was the agricultural products sector, which rose by $7.2 billion to $27.3 billion. This sector accounted for 26 percent of all U.S. merchandise exports to China in 2012. Within the sector, oilseeds (almost entirely soybeans) accounted for slightly over half the value of all U.S. agricultural product exports to China in 2012. China accounted for more than half of all U.S. oilseed exports in 2012 and was the world's leading consumer and importer of soybeans.[1]

Soybean meal is used largely in animal feed, and rising incomes in China are fueling demand for both animal protein and vegetable oils.[2] The growth in exports of soybeans involved increases in both volume and unit value. U.S. soybean exports to China in 2012 rose 28 percent in volume and 43 percent in value over 2011.

**FIGURE CH. 2** U.S. exports to China are distributed across a variety of sectors




*Source:* USITC DataWeb/USDOC (accessed May 20, 2013).

[1] USDA, *World Supply and Demand Estimate,* April 10, 2012, 28.
[2] USDA, FAS, *China: Oilseeds and Products Annual,* March 1, 2013, 2.

The transportation equipment sector accounted for the second-largest increase in U.S. exports to China and represented 17 percent of all U.S. merchandise exports to China in 2012. The main drivers of increased sector exports were aircraft, spacecraft, and related equipment (45 percent of the sector total) and motor vehicles (31 percent of the sector total).

China was the leading export market for U.S. exports of aircraft, spacecraft, and related equipment in 2012, and the United States was China's leading import source of these goods. U.S. exports of aircraft, spacecraft, and related equipment to China increased 25 percent in 2012, after growing 11 percent in 2011 and 8 percent in 2010. For this product category, the vast majority of trade was in aircraft less than 15,000 kg.[3] Firms reported increased demand for business aircraft in China.[4] Moreover, China's general aviation industry has expanded rapidly, boosting demand for aircraft. While the number of general aviation aircraft in China remains low for the country's size and population due to restrictions on low-altitude airspace, reform of these regulations is expected in the near future. Restrictions have been eased over some small areas, although the date for the China-wide opening of airspace has not been announced.[5]

U.S. exports of motor vehicles to China in 2012 grew by 16 percent to 167,298 units after growing 61 percent in 2011 and 227 percent in 2010.[6] China's sales of passenger and commercial vehicles increased 4.3 percent in 2012. This increase was below the level expected by industry officials, and was attributed to slower growth of China's economy and traffic congestion measures imposed by some large cities.[7]

U.S. exports of minerals and metals to China fell by $1.3 billion (9.9 percent) in 2012, after expanding nearly 40 percent during 2008–11. Within the sector, U.S. exports of iron and steel scrap declined by $991 million from 2011, while U.S. exports of iron ores to China increased by $203 million. For much of 2012, low global prices for iron ore led many Chinese steel producers to substitute iron ore for steel scrap. As a result, China's steel industry reduced its use and imports of iron and steel scrap, even though steel production grew.[8]

## *U.S. Imports*

In 2012, U.S. merchandise imports from China increased $26.4 billion (6.6 percent) over 2011. Three of the leading import growth sectors were electronic products, machinery, and miscellaneous manufactures. These three sectors have remained the largest U.S. merchandise import categories from China since 2008.

U.S. import growth from China was principally driven by the electronic products sector; imports of these goods increased by $12.5 billion (or 7.9 percent) in 2012. Further, this sector accounted for 40 percent of total U.S. merchandise imports from China in 2012 (figure CH.3). Within the electronic products sector, imports of computers and peripheral equipment accounted for nearly one-half of the total

[3] GTIS, Global Trade Atlas database, accessed May 2, 2013.

[4] Laboda, "Aircraft Sales in China Increasing," April 15, 2013; Govindasamy, "Business Aviation Stars Shines Bright in China," November 2012.

[5] Wen, "Sky's the Limit for Booming General Aviation Sector," November 27, 2012; Waldron, "General Aviation: Waiting for the Dawn," November 8, 2012.

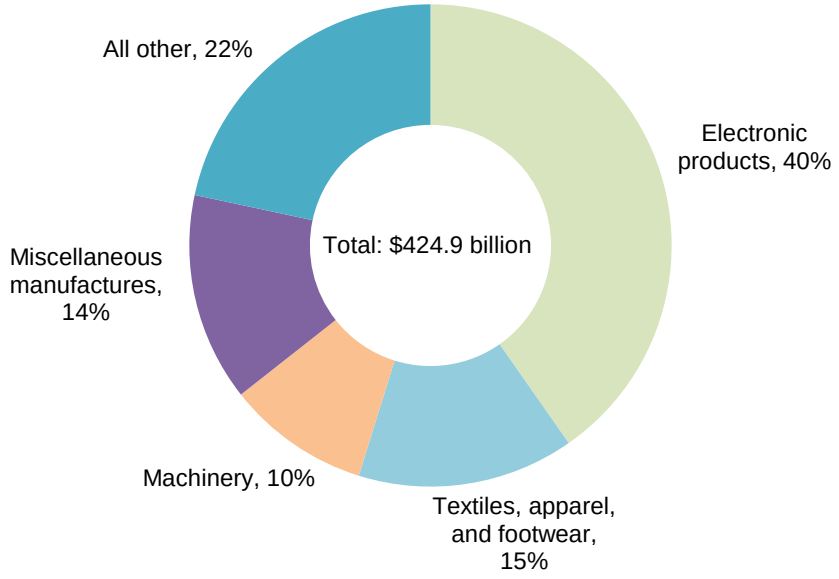
[6] USITC DataWeb/USDOC (accessed July 15, 2013).

[7] Market Watch, "China's 2012 Vehicle Sales Up 4.3%," January 11, 2013.

[8] Davidson, "US Remains Top Ferrous Scrap Exporter," April 30, 2013.

(45 percent). Of the remaining balance, one-half (29 percent of the sector total) was accounted for by imports of telecommunications equipment. China is the United States' leading source of imports of computers and peripheral equipment, as well as telecommunications equipment.[9]

**FIGURE CH. 3** U.S. imports from China are largely concentrated in electronic products




*Source:* USITC, DataWeb/USDOC (accessed May 20, 2013).

U.S. imports of computers and peripheral equipment from China in 2012 increased by 1 percent over 2011, continuing a general upward trend. The majority of the U.S. imports of telecommunications equipment from China in 2012 were cellphones—mostly Internet-enabled mobile phones such as the iPhone models that are assembled in China for Apple.[10]

The machinery sector was the second fastest growing merchandise import sector and the fourth-largest import sector by value. Household appliances accounted for nearly one-quarter of U.S. machinery imports from China and over one-fifth of the total increase in imports from China in this sector. U.S. sales of household appliances increased in 2012, largely driven by an increase in residential construction in 2012.[11] U.S. residential construction spending in 2012 expanded 15 percent over 2011, outpacing nonresidential construction (growth of 7 percent).[12] Small-appliance sales were also driven by an apparent shift in product mix to higher-priced models.[13] Other sectors with rapidly increasing imports from China in 2012 included air conditioning equipment and parts, and electric motors, generators, and related equipment.

[9] GTIS Global Trade Atlas database (accessed May 2, 2013).
[10] Decker, "Apple Averts Import Ban," April 24, 2013. Notably, the estimated value added from the final assembly of the iPhone done in China is less than 5 percent of the final value of the product. Dedrick, "Who Profits from Innovation?" n.d. (accessed April 15, 2013).
[11] Zhang, "US Housing Recovery Lifts Appliance Makers," October 24, 2012.
[12] U.S. Census Bureau, "Value of Construction Put in Place" (accessed April 15, 2013).
[13] NPD Group, "The NPD Group Reports," February 12, 2013.

The miscellaneous manufactures sector was the second-largest merchandise import sector and registered the fourth-highest import growth (by value) in 2012. More than half of U.S. imports from China in this sector were of toys and games (27 percent) and furniture (25 percent). The value of toys and games imports from China declined 6 percent from 2011, as overall U.S. sales of video games fell 22 percent.[14] The value of U.S. furniture imports from China increased 8.3 percent (table CH.2). Imports of metal furniture, wooden furniture, and upholstered seats with wooden frames increased substantially, while imports of seats with metal frames increased less than 1 percent. China is the leading U.S. import source of miscellaneous manufactures, and the largest import source for toys and games and for furniture.

[14] Ibid.

**TABLE CH.2 China: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Agricultural products: | | | | | | | |
| Oilseeds (AG032) | 7,261 | 9,222 | 10,824 | 10,454 | 14,973 | 4,519 | 43.2 |
| Cotton, not carded or combed (AG049) | 1,631 | 824 | 2,064 | 2,562 | 3,422 | 860 | 33.6 |
| Aircraft, spacecraft, and related equipment (TE013) | 5,079 | 5,308 | 5,712 | 6,330 | 7,881 | 1,551 | 24.5 |
| Unrefined and refined copper (MM036A) | 3 | 179 | 198 | 9 | 629 | 620 | 7,078.8 |
| **Decreases:** | | | | | | | |
| Iron and steel waste and scrap (MM023) | 1,844 | 2,503 | 1,804 | 2,334 | 1,343 | -991 | -42.4 |
| Paints, inks, and related items, and certain components thereof (CH011) | 362 | 334 | 767 | 1,116 | 599 | -517 | -46.3 |
| **All other** | 50,986 | 46,755 | 64,376 | 74,093 | 74,660 | 567 | 0.8 |
| Total | 67,166 | 65,124 | 85,746 | 96,898 | 103,508 | 6,610 | 6.8 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Electronic products: | | | | | | | |
| Telecommunications equipment (EL002) | 24,029 | 22,615 | 30,637 | 37,254 | 49,102 | 11,848 | 31.8 |
| Computers, peripherals, and parts (EL017) | 52,556 | 50,873 | 68,148 | 75,392 | 76,291 | 899 | 1.2 |
| Miscellaneous manufactures: | | | | | | | |
| Furniture (MS009) | 13,600 | 11,181 | 13,676 | 13,806 | 14,950 | 1,144 | 8.3 |
| Lamps and lighting fittings (MS011) | 3,875 | 3,089 | 3,955 | 4,315 | 5,068 | 753 | 17.5 |
| **Decreases** | | | | | | | |
| Nuclear materials (EP002) | 2 | 1 | 2 | 294 | 87 | -207 | -70.5 |
| **All other** | 243,442 | 207,785 | 247,629 | 267,406 | 279,376 | 11,971 | 4.5 |
| Total | 337,504 | 295,545 | 364,047 | 398,467 | 424,874 | 26,407 | 6.6 |

*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 caused 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.

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# European Union

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $17.2 billion (14 percent) to $138.5 billion**
**U.S. exports: Decreased by $5.5 billion (2 percent) to $235.6 billion**
**U.S. imports: Increased by $11.7 billion (3 percent) to $374.1 billion**

The U.S. trade deficit with the EU widened by $17.2 billion in 2012, owing to an $11.7 billion expansion of U.S. imports and a $5.5 billion reduction in U.S. exports (table EU.1). This shift principally reflected economic contraction within key EU markets, coupled with growth in U.S. consumer demand and investment. Relatively strong U.S. demand for EU-produced motor vehicles, in particular, translated into an $11.0 billion expansion in imports of transportation equipment—the largest category of U.S. imports from the EU in 2012 (figure EU.1).

## *U.S. Exports*

U.S. exports to the EU fell by $5.5 billion (2 percent) to $235.6 billion in 2012, with lower exports of minerals and metals and electronic products driving most of these declines (table EU.2). Exports in these sectors fell by a combined $4.7 billion. During 2012, the EU economy struggled with financial and sovereign debt crises, high unemployment, and public sector austerity measures, all of which contributed to widespread declines in regional demand for goods and services (figure EU.2).[1] U.S. exports to the EU declined in eight of the nine selected sectors. However, some of these reductions were offset by growth in U.S. exports to the EU of chemicals and related products, which rose by $771 million to $54.4 billion. This sector remained the United States' largest export category to the EU in 2012.

[1] BBC, "Eurozone Falls Back," November 15, 2012.

**TABLE EU.1 EU27: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

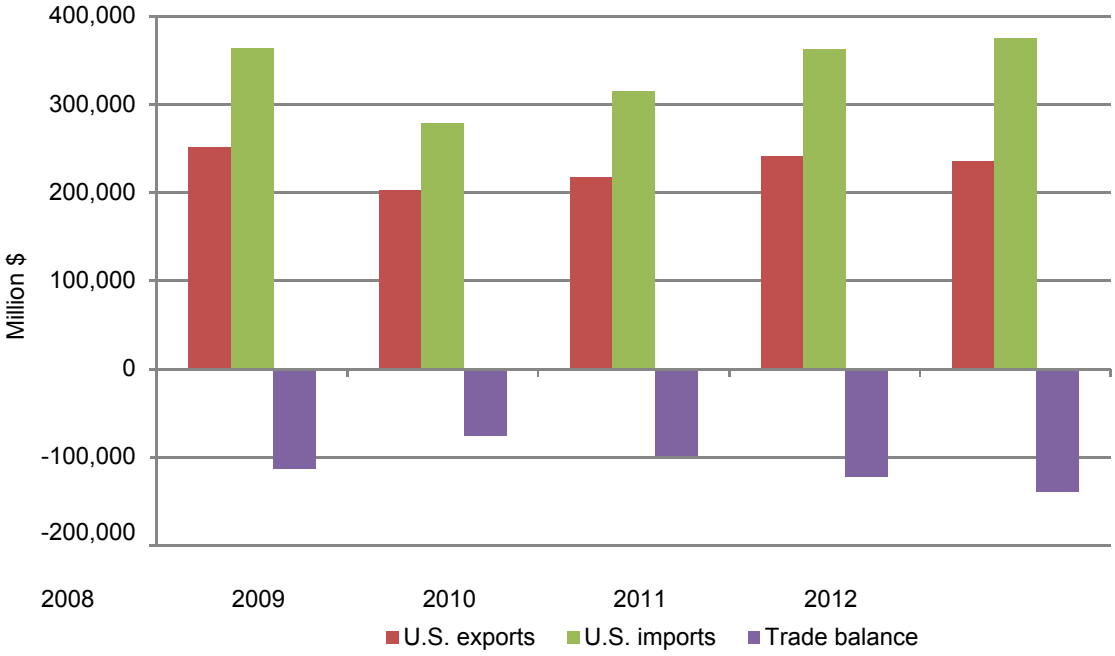
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 11,527 | 8,582 | 10,371 | 12,036 | 11,994 | -43 | -0.4 |
| Forest products | 5,698 | 4,476 | 5,139 | 5,241 | 5,110 | -131 | -2.5 |
| Chemicals and related products | 55,958 | 51,116 | 55,292 | 53,653 | 54,424 | 771 | 1.4 |
| Energy-related products | 15,653 | 12,581 | 14,213 | 26,266 | 25,567 | -699 | -2.7 |
| Textiles and apparel | 2,121 | 1,666 | 1,980 | 2,133 | 1,873 | -260 | -12.2 |
| Footwear | 68 | 53 | 56 | 56 | 56 | [a] | [z] |
| Minerals and metals | 22,965 | 17,339 | 21,349 | 26,488 | 23,321 | -3,167 | -12.0 |
| Machinery | 18,609 | 13,544 | 15,522 | 17,228 | 16,921 | -307 | -1.8 |
| Transportation equipment | 59,168 | 44,357 | 41,916 | 48,272 | 47,994 | -278 | -0.6 |
| Electronic products | 43,633 | 35,454 | 36,520 | 36,595 | 35,107 | -1,488 | -4.1 |
| Miscellaneous manufactures | 7,862 | 6,340 | 5,612 | 5,443 | 5,712 | 269 | 4.9 |
| Special provisions | 7,934 | 6,885 | 9,358 | 7,678 | 7,542 | -136 | -1.8 |
| Total | 251,196 | 202,392 | 217,329 | 241,089 | 235,620 | -5,469 | -2.3 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 17,569 | 15,534 | 16,702 | 18,900 | 19,908 | 1,008 | 5.3 |
| Forest products | 5,671 | 3,974 | 4,340 | 4,559 | 4,528 | -32 | -0.7 |
| Chemicals and related products | 84,791 | 77,571 | 83,661 | 91,513 | 86,329 | -5,184 | -5.7 |
| Energy-related products | 33,956 | 18,970 | 22,150 | 26,701 | 27,028 | 327 | 1.2 |
| Textiles and apparel | 5,791 | 3,972 | 4,500 | 5,243 | 5,194 | -49 | -0.9 |
| Footwear | 1,586 | 1,090 | 1,278 | 1,560 | 1,676 | 116 | 7.4 |
| Minerals and metals | 29,376 | 18,305 | 23,514 | 28,968 | 30,254 | 1,286 | 4.4 |
| Machinery | 41,416 | 29,322 | 31,780 | 40,218 | 41,144 | 926 | 2.3 |
| Transportation equipment | 70,232 | 48,048 | 59,848 | 71,354 | 82,394 | 11,040 | 15.5 |
| Electronic products | 40,400 | 32,502 | 37,091 | 40,843 | 41,570 | 727 | 1.8 |
| Miscellaneous manufactures | 14,520 | 10,955 | 12,335 | 13,643 | 15,071 | 1,427 | 10.5 |
| Special provisions | 18,360 | 17,862 | 17,680 | 18,916 | 19,039 | 123 | 0.7 |
| Total | 363,667 | 278,104 | 314,880 | 362,419 | 374,134 | 11,715 | 3.2 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | -6,042 | -6,952 | -6,331 | -6,863 | -7,914 | -1,051 | -15.3 |
| Forest products | 27 | 501 | 799 | 681 | 582 | -99 | -14.6 |
| Chemicals and related products | -28,833 | -26,455 | -28,369 | -37,860 | -31,905 | 5,955 | 15.7 |
| Energy-related products | -18,303 | -6,388 | -7,937 | -435 | -1,461 | -1,026 | -235.9 |
| Textiles and apparel | -3,670 | -2,307 | -2,520 | -3,110 | -3,322 | -212 | -6.8 |
| Footwear | -1,518 | -1,037 | -1,222 | -1,504 | -1,620 | -116 | -7.7 |
| Minerals and metals | -6,410 | -966 | -2,165 | -2,480 | -6,933 | -4,453 | -179.5 |
| Machinery | -22,807 | -15,778 | -16,258 | -22,991 | -24,224 | -1,233 | -5.4 |
| Transportation equipment | -11,064 | -3,691 | -17,933 | -23,082 | -34,400 | -11,318 | -49.0 |
| Electronic products | 3,233 | 2,952 | -571 | -4,247 | -6,463 | -2,215 | -52.2 |
| Miscellaneous manufactures | -6,658 | -4,615 | -6,724 | -8,200 | -9,359 | -1,158 | -14.1 |
| Special provisions | -10,426 | -10,977 | -8,321 | -11,238 | -11,498 | -259 | -2.3 |
| Total | -112,470 | -75,712 | -97,551 | -121,330 | -138,514 | -17,184 | -14.2 |

*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. Sectors are ordered by the level of processing of the products classified therein.

[a] Less than $500,000.
[b] Less than 0.05 percent.

**FIGURE EU.1** EU27: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, 2008–12




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

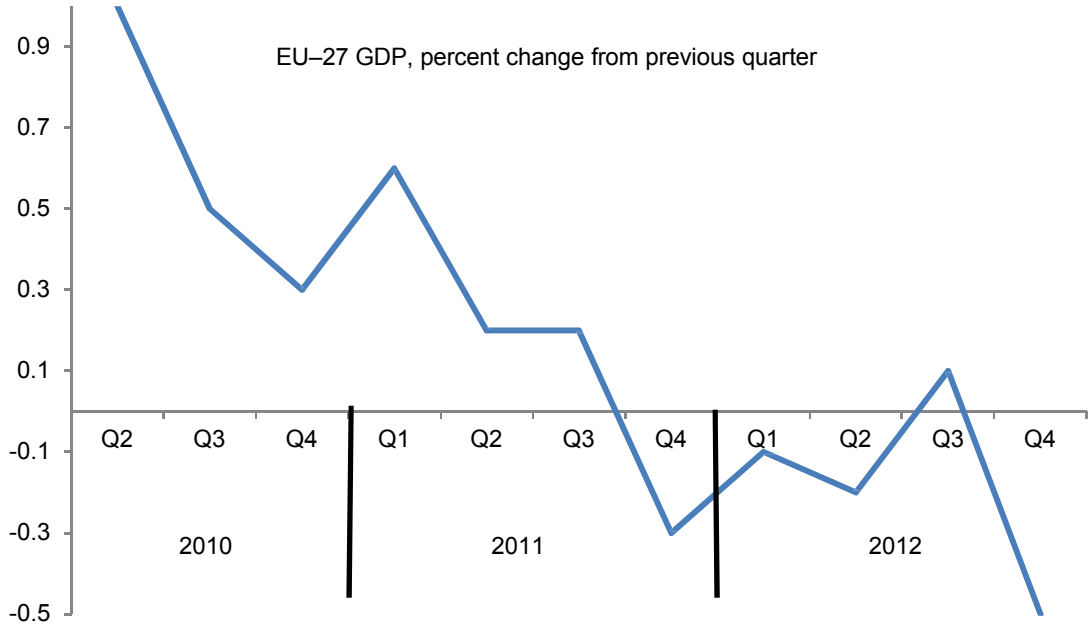
**TABLE EU.2 EU27: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Medicinal chemicals (CH019) | 27,085 | 29,688 | 27,904 | 25,248 | 27,016 | 1,768 | 7.0 |
| **Decreases:** | | | | | | | |
| Precious metals and non-numismatic coins (MM020) | 9,095 | 8,983 | 10,304 | 13,491 | 11,121 | -2,370 | -17.6 |
| Semiconductors and integrated circuits (EL015) | 3,500 | 2,342 | 2,708 | 2,060 | 1,542 | -518 | -25.1 |
| **All other** | 211,516 | 161,380 | 176,413 | 200,289 | 195,941 | -4,349 | -2.2 |
| Total | 251,196 | 202,392 | 217,329 | 241,089 | 235,620 | -5,469 | -2.3 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Motor vehicles (TE009) | 30,250 | 17,373 | 25,588 | 29,756 | 35,356 | 5,601 | 18.8 |
| Aircraft engines and gas turbines (TE001) | 10,127 | 9,243 | 9,031 | 10,182 | 12,020 | 1,838 | 18.1 |
| Steel mill products (MM025) | 7,597 | 4,214 | 5,785 | 7,155 | 8,558 | 1,404 | 19.6 |
| **Decreases** | | | | | | | |
| Chemicals and related products: | | | | | | | |
| Medicinal chemicals (CH019) | 57,442 | 56,282 | 58,149 | 61,825 | 56,155 | -5,670 | -9.2 |
| Major primary olefins (CH001) | 243 | 264 | 593 | 662 | 468 | -194 | -29.2 |
| Fertilizers (CH010) | 626 | 213 | 404 | 757 | 571 | -185 | -24.5 |
| **All other** | 257,381 | 190,516 | 215,330 | 252,083 | 261,005 | 8,922 | 3.5 |
| Total | 363,667 | 278,104 | 314,880 | 362,419 | 374,134 | 11,715 | 3.2 |

*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 caused 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.

**FIGURE EU.2** The eurozone experienced economic contraction during most of 2012, and it accelerated during the last quarter of the year




*Source:* Eurostat, Gross Domestic Product (accessed May 20, 2013).

U.S. exports of minerals and metals to the EU fell by $3.2 billion in 2012. Declines within this sector were principally driven by a $2.4 billion reduction in exports of precious metals and non-numismatic coins, especially refined silver. Relatively strong consumer demand for silver jewelry (the largest end use for silver) during the holiday season[2] proved insufficient to overcome the lower industrial demand for silver, as fabricators scaled back production during the final quarter of the year in response to weakened industrial demand in Europe for key silver-consuming industries, such as consumer electronics, telecommunications, and renewable energy.[3] U.S. exports of silver to Poland, Germany, and Italy—EU countries with major silver mining and refining operations[4]—fell by $40 million (26 percent) to $110 million 2012.

[2] The Silver Institute, "Strong Silver Jewelry Sales," January 23, 2013.
[3] Thomson Reuters GFMS, *The Outlook for Silver Industrial Demand*, November 2012, 6.
[4] The Silver Institute, "Silver Production," n.d. (accessed April 15, 2013).

U.S. exports of electronic products to the EU registered the second largest shift during 2012, falling $1.5 billion to $35.1 billion. Much of this decline is attributable to a $442 million decrease in exports of semiconductor manufacturing equipment.[5] Industry sources reported three major reasons for this decrease: large increases in semiconductor equipment purchases by Europe during the two previous years; decisions by firms to delay or halt investments in new capital equipment for semiconductor fabrication facilities in France, Germany, Ireland, and the United Kingdom; and depressed global demand for semiconductors in 2012.[6] For the three largest U.S. semiconductor equipment manufacturing companies, Europe represented about 10 percent of sales annually over the past three years.[7]

In contrast to the decline in total exports, U.S. exports of chemicals and related products increased by $771 million in 2012. Medicinal chemical export trade between parent companies in the U.S. and their affiliates in the EU drove most of the growth.[8] These transfers do not necessarily reflect pharmaceutical market conditions in the countries involved but, instead, help multinational firms reduce costs while protecting intellectual property.[9] Disaggregated production chains also can be part of multinational firms' strategies for meeting demand in other countries.[10]

## *U.S. Imports*

U.S. imports from the EU increased by $11.7 billion (3.2 percent) to $374.1 billion in 2012. Transportation equipment imports registered an $11.0 billion increase. However, the overall expansion of U.S. imports was attenuated by a $5.1 billion reduction in U.S. imports of chemicals and related products from the 2011 level.

Most of the increase in the transportation equipment sector can be attributed to heightened U.S. demand for motor vehicles, imports of which rose by $5.6 billion (19 percent) in 2012. Increased domestic demand for motor vehicles—both foreign and U.S. made—reflected the greater availability of credit to finance automobile purchases; a general resurgence in consumer spending following widespread restraint during the economic recession of 2008–09;[11] and replacement of the historically oldest fleet of U.S. cars. U.S. passenger vehicle sales increased 14 percent, from 12.7 million in 2011 to 14.5 million in 2012.[12] European producers in particular benefited from increasing U.S. demand for new models from Volkswagen and strong demand for Fiat's high-fuel-economy model 500.[13]

Growing construction and mining equipment imports also contributed to the $11.0 billion expansion of transportation equipment imports from the EU. This growth

[5] SEMI, "SEMI Reports 2012 Global Semiconductor Equipment Sales," March 12, 2013.

[6] *Solid State Technology*, "Semiconductor Revenues Topped USD300B," April 20, 2012; *Solid State Technology*, "Q2 Semiconductor Revenue," April 23, 2012.

[7] Applied Materials, *2012 Annual Report*, 13 (accessed April 15, 2013); KLA-Tencor, *Annual Report 2012*, 44 (accessed April 15, 2013); LAM Research, *2012 Annual Report*, 36 (accessed April 15, 2013).

[8] Lanz and Miroudot, "Intra-Firm Trade," June 24, 2011, 6.

[9] Boring, "Offshoring Production," July 2013; Lanz and Miroudot, "Intra-Firm Trade," June 24, 2011, 25.

[10] Boring, "Offshoring Production," July 2013, 4.

[11] EIU, "USA: Automotive Report," October 1, 2012.

[12] *Automotive News*, "U.S. Light Vehicle Sales by Nameplate," January 7, 2013, 22; Binder, *Ward's Automotive Yearbook*, 2012, 206–15.

[13] Phillips, "Automakers Close Out 2012 Strong," January 3, 2013.

reflected increased U.S. construction, up by an estimated $76.3 billion (nearly 10 percent), from $778.2 billion to $854.5 billion in 2012.[14] Secondly, in 2012, many rental companies reportedly replaced their construction and mining equipment lines. These companies represented an estimated 52 percent of the U.S. construction and mining machinery sales market.[15]

[14] U.S. Census Bureau, Construction Spending, April 25, 2013.
[15] *Machinery Outlook,* "2013 Equipment Market Forecast," 2012, 8–9.

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Lanz, Rainer, and Sebastien Miroudot. "Intra-Firm Trade: Patterns, Determinant, and Policy Implications." OECD Trade Policy Working Paper No. 114. OECD, June 24, 2011. DOI :10.1787/18166873. http://www.oecd-ilibrary.org/trade/intra-firm-trade_5kg9p39lrwnn-en.

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Silver Institute. "Strong Silver Jewelry Sales Reported during 2012 Holiday Season," January 23, 2013.

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# Japan

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $13.4 billion (20 percent) to $79.9 billion**
**U.S. exports: Increased by $3.2 billion (5 percent) to $64.6 billion**
**U.S. imports: Increased by $16.6 billion (13 percent) to $144.5 billion**

The U.S. trade deficit with Japan widened in 2012 as the growth in U.S. imports exceeded export growth by $13.4 billion (table JA.1). Growth in U.S. demand for transportation, in particular, translated into a $16.6 billion increase in U.S. imports from Japan in 2012. In addition, Japanese production, which was disrupted in 2011 due to the Tohoku earthquake and other factors,[1] not only recovered in 2012 but actually increased beyond its previous level.

Growth in U.S. exports to Japan was led by strong Japanese demand for medical devices, pharmaceuticals, and aircraft. However, this export growth was undercut by a $693 million reduction in agricultural exports, arising from the drought in the United States during 2012. Export growth was also hobbled by economic stagnation and weak demand in Japan after the first quarter of 2012.[2] Nevertheless, Japan remained the United States' fourth-largest trading partner in 2012, with total trade between the two countries primarily composed of transportation equipment (figure JA.2).

## *U.S. Exports*

U.S. exports to Japan increased by $3.2 billion in 2012 to $64.6 billion—a five-year high. This expansion was largely due to heightened exports of transportation equipment (up $3.7 billion to $11.5 billion), electronic products (up $632 million to $11.3 billion), and chemicals (up $592 million to $12.2 billion) (table JA.2).

[1] The 2011 flooding in Thailand affected the supply chain for some Japanese companies. Government of Japan, METI, *White Paper on International Economy and Trade 2012*, December 18, 2012, 385, 388–89.

[2] Japan's GDP expanded by 0.2 percent for the full year, but declined during the second and third quarters. Government of Japan, Cabinet Office, "Quarterly Estimates of GDP," March 8, 2013, 5.

**TABLE JA.1 Japan: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

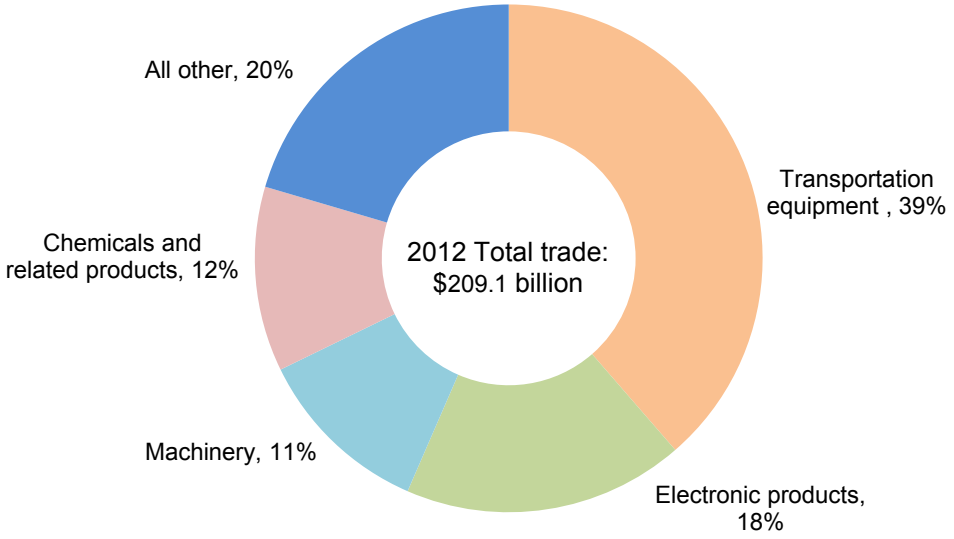
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 14,715 | 12,249 | 12,934 | 15,277 | 14,585 | -693 | -4.5 |
| Forest products | 2,019 | 1,712 | 1,992 | 2,209 | 2,156 | -53 | -2.4 |
| Chemicals and related products | 9,911 | 7,958 | 10,741 | 11,609 | 12,201 | 592 | 5.1 |
| Energy-related products | 2,286 | 1,707 | 2,774 | 3,494 | 3,547 | 54 | 1.5 |
| Textiles and apparel | 548 | 447 | 514 | 518 | 508 | -10 | -1.9 |
| Footwear | 53 | 56 | 61 | 66 | 67 | 1 | 2.2 |
| Minerals and metals | 3,995 | 2,043 | 3,026 | 3,670 | 3,129 | -541 | -14.7 |
| Machinery | 4,214 | 2,588 | 2,992 | 3,467 | 3,068 | -399 | -11.5 |
| Transportation equipment | 10,693 | 7,095 | 7,535 | 7,748 | 11,463 | 3,715 | 47.9 |
| Electronic products | 9,790 | 8,521 | 9,661 | 10,631 | 11,264 | 632 | 5.9 |
| Miscellaneous manufactures | 1,862 | 1,480 | 1,657 | 1,586 | 1,591 | 4 | 0.3 |
| Special provisions | 1,348 | 1,221 | 1,838 | 1,133 | 1,020 | -113 | -9.9 |
| Total | 61,435 | 47,074 | 55,727 | 61,409 | 64,599 | 3,190 | 5.2 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 685 | 687 | 716 | 759 | 780 | 21 | 2.7 |
| Forest products | 642 | 482 | 554 | 517 | 531 | 14 | 2.6 |
| Chemicals and related products | 11,315 | 9,985 | 12,013 | 12,269 | 12,433 | 164 | 1.3 |
| Energy-related products | 601 | 303 | 526 | 610 | 616 | 5 | 0.9 |
| Textiles and apparel | 765 | 544 | 658 | 700 | 705 | 5 | 0.7 |
| Footwear | 3 | 2 | 2 | 2 | 2 | ([a]) | 7.6 |
| Minerals and metals | 5,996 | 4,468 | 5,752 | 6,971 | 8,058 | 1,086 | 15.6 |
| Machinery | 17,053 | 11,633 | 15,202 | 19,014 | 20,461 | 1,447 | 7.6 |
| Transportation equipment | 65,731 | 40,241 | 52,674 | 55,569 | 69,277 | 13,707 | 24.7 |
| Electronic products | 30,735 | 22,917 | 26,757 | 26,697 | 26,213 | -485 | -1.8 |
| Miscellaneous manufactures | 1,835 | 1,620 | 1,720 | 1,715 | 1,604 | -111 | -6.5 |
| Special provisions | 3,752 | 3,121 | 3,365 | 3,077 | 3,859 | 783 | 25.4 |
| Total | 139,112 | 96,002 | 119,938 | 127,901 | 144,538 | 16,637 | 13.0 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | 14,030 | 11,562 | 12,218 | 14,519 | 13,805 | -714 | -4.9 |
| Forest products | 1,377 | 1,230 | 1,438 | 1,692 | 1,625 | -67 | -3.9 |
| Chemicals and related products | -1,404 | -2,028 | -1,272 | -660 | -232 | 428 | 64.8 |
| Energy-related products | 1,685 | 1,404 | 2,247 | 2,884 | 2,932 | 48 | 1.7 |
| Textiles and apparel | -217 | -97 | -144 | -182 | -197 | -15 | -8.2 |
| Footwear | 50 | 54 | 59 | 63 | 65 | 1 | 2.0 |
| Minerals and metals | -2,001 | -2,425 | -2,726 | -3,301 | -4,928 | -1,627 | -49.3 |
| Machinery | -12,839 | -9,045 | -12,209 | -15,546 | -17,393 | -1,846 | -11.9 |
| Transportation equipment | -55,038 | -33,146 | -45,138 | -47,821 | -57,814 | -9,993 | -20.9 |
| Electronic products | -20,944 | -14,395 | -17,095 | -16,066 | -14,949 | 1,117 | 7.0 |
| Miscellaneous manufactures | 27 | -140 | -62 | -128 | -13 | 115 | 89.9 |
| Special provisions | -2,404 | -1,900 | -1,527 | -1,944 | -2,839 | -895 | -46.0 |
| Total | -77,677 | -48,928 | -64,211 | -66,492 | -79,939 | -13,446 | -20.2 |

*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. Sectors are ordered by the level of processing of the products classified therein.

[a] Less than $500,000.

**FIGURE JA.2** Total trade between Japan and the United States is primarily concentrated in the transportation equipment sector




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

*Note:* Export values are based on f.a.s. value, U.S. port of export.

**TABLE JA.2 Japan: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Aircraft, spacecraft, and related equipment (TE013) | 6,247 | 5,134 | 4,985 | 4,689 | 8,095 | 3,406 | 72.6 |
| Motor vehicles (TE009) | 581 | 293 | 376 | 583 | 766 | 183 | 31.3 |
| Chemicals and related products: | | | | | | | |
| Medicinal chemicals (CH019) | 2,286 | 2,613 | 3,292 | 3,745 | 4,337 | 592 | 15.8 |
| Certain organic chemicals (CH006) | 648 | 514 | 1,237 | 1,330 | 1,388 | 57 | 4.3 |
| **Decreases** | | | | | | | |
| Cereals (AG030) | 5,890 | 4,164 | 4,196 | 5,599 | 4,361 | -1,238 | -22.1 |
| Precious metals and non-numismatic coins (MM020) | 804 | 304 | 466 | 708 | 557 | -151 | -21.4 |
| **All other** | 44,979 | 34,053 | 41,173 | 44,754 | 45,096 | 342 | 0.8 |
| Total | 61,435 | 47,074 | 55,727 | 61,409 | 64,599 | 3,190 | 5.2 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Motor vehicles (TE009) | 42,407 | 24,818 | 33,142 | 31,834 | 39,749 | 7,916 | 24.9 |
| Certain motor-vehicle parts (TE010) | 7,339 | 5,232 | 7,069 | 7,471 | 9,423 | 1,952 | 26.1 |
| Construction and mining equipment (TE004) | 2,453 | 991 | 1,591 | 3,031 | 4,575 | 1,545 | 51.0 |
| Aircraft, spacecraft, and related equipment (TE013) | 1,654 | 1,999 | 2,080 | 2,566 | 3,246 | 680 | 26.5 |
| Internal combustion piston engines, other than for aircraft (TE002) | 4,328 | 2,334 | 3,482 | 3,991 | 4,351 | 360 | 9.0 |
| Aircraft engines and gas turbines (TE001) | 1,170 | 1,016 | 1,048 | 1,405 | 1,706 | 301 | 21.5 |
| **Decreases** | | | | | | | |
| Computers, peripherals, and parts (EL017) | 7,878 | 6,256 | 6,366 | 6,216 | 5,546 | -670 | -10.8 |
| Precious metals and non-numismatic coins (MM020) | 169 | 168 | 318 | 416 | 381 | -36 | -8.6 |
| **All other** | 71,713 | 53,187 | 64,842 | 70,971 | 75,559 | 4,588 | 6.5 |
| Total | 139,112 | 96,002 | 119,938 | 127,901 | 144,538 | 16,637 | 13.0 |

*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. 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.

Within the transportation equipment sector, U.S. exports of aircraft, spacecraft, and related equipment (up $3.4 billion to $8.1 billion) were the largest component of U.S. export growth to Japan. This was primarily due to sharp increases in deliveries of the new Boeing 787 Dreamliner. The two largest airlines in Japan, All Nippon Airways (ANA) and Japan Airlines (JAL), accepted deliveries of 21 Boeing 787s in 2012, up from 3 the previous year. Overall, deliveries of Boeing aircraft of all types to ANA and JAL increased from 21 in 2011 to 35 in 2012.[3] In addition, U.S. exports to Japan of used or rebuilt military aircraft weighing more than 15,000 kg increased from zero in 2011 to $317 million in 2012.[4]

The second leading U.S. export sector to Japan was electronic products, which expanded by $632 million (or 5.9 percent) in 2012. Export growth in this sector was driven by a $178 million increase in of U.S. exports of medical goods to Japan. Japan has the world's second-largest global medical device market and has faced an acute need for high-value medical technologies—including various imaging technologies and surgical instruments—to address the various healthcare needs of the country's significantly aging population. Increased medical device exports between 2011 and 2012 reflect an ongoing trend, as U.S. exports of these goods have increased in each of the previous four years.

Similarly, the $592 million increase in U.S. exports of chemicals and related products, which rose to $12.2 billion total in 2012, resulted from greater Japanese demand for medicinal chemicals. The increased exports of these goods also reflected efforts by U.S. companies to increase sales; regulatory changes in Japan, including faster review times for new drug approvals; a pilot program which maintains higher prices on patented drugs; and attempts to encourage the sale of more generic drugs.[5]

As mentioned earlier, overall increases in U.S. exports to Japan in these sectors were partially offset by a $693 million decline in agricultural exports. U.S. exports of cereals to Japan in 2012 declined by $1.2 billion (or 22.1 percent), primarily reflecting an $851 million decrease in corn exports and a $313 million reduction of U.S. exports of wheat and meslin.[6] The 2012 drought in the United States led to a significant fall in corn production and an increase in prices, pushing Japanese purchasers to buy corn from other sources and switch to alternative grains. The U.S. share of Japan's corn imports decreased from 90 percent, by volume, in 2011 to 75 percent in 2012. In 2011, the value of Japan's global wheat imports remained fairly stable, reaching its third-highest level, for the 2003–12 decade. However, the value of U.S. wheat exports to Japan was down due to a decrease in prices, a small decrease in Japanese imports from the prior year, and a smaller share of Japanese imports being sourced from U.S. producers.[7]

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[3] Boeing website, "Orders and Deliveries," http://active.boeing.com/commercial/orders/index.cfm?content=timeperiodselection.cfm&pageid=m15523 (accessed April 22, 2013).

[4] USITC DataWeb/USDOC, http://dataweb.usitc.gov (accessed April 22, 2013).

[5] The efforts to expand the market for generic drugs have brought more foreign companies into the Japanese market, but it is unclear if sales of generic drugs have substantially increased. *Economist*, "Regenerative Medicine," February 23, 2013; Thomson Reuters, "Japan May Open," March 13, 2012; Shoji, "Lines in the Sand," March 18, 2013; Shoji, "U.S. Biomedical Giant," April 9, 2013; *Nikkei*, "Bristol-Myers, Squibb to Launch," April 16, 2013; *Nikkei*, "Bristol-Myers' Japan Unit," April 16, 2013; Research and Markets website, http://www.researchandmarkets.com/research/lmls2c/japan_medical (accessed April 26, 2013).

[6] These data include corn exports in HTS heading 1005: corn (maize), and wheat and meslin exports in HTS heading 1001: wheat and meslin.

[7] GTIS, Global Trade Atlas database (accessed April 23 and April 25, 2013); Takada and Son, "Corn Imports," July 27, 2012; Takada and Son, "Japan Seen Boosting Imports," April 4, 2013.

## *U.S. Imports*

U.S. imports from Japan increased in eight of the nine sectors discussed in this report, with transportation equipment representing $13.7 billion of the $16.6 billion increase in U.S. imports. The sectors with the largest import growth after transportation equipment were machinery (up $1.4 billion, or 8 percent) and minerals and metals (up $1.1 billion, or 16 percent).

Growth of U.S. transportation equipment imports primarily reflects an increase in U.S. imports of motor vehicles (up $7.9 billion to $39.7 billion) and certain motor vehicle parts (up $2.0 billion to $9.4 billion). One important factor in this increase was the substantial rise in U.S. motor vehicle sales in 2012, from 13.0 million vehicles to 14.8 million (a 13 percent increase).[8] Further, Japanese motor vehicle exports to the United States had declined in 2011 due to production disruptions resulting from the Tohoku earthquake and tsunami and, to a lesser extent, flooding in Thailand in the fall of 2011.[9] The recovery of Japanese production following these disruptions was another major factor in the increase in imports.[10]

Additionally, within the transportation equipment sector, U.S. imports of construction and mining equipment from Japan continued their four-year growth trend, registering a $1.5 billion (51 percent) increase in 2012. This growth was due, in part, to an increase in U.S. construction; the annual value of U.S. construction is estimated to have grown by $76.3 billion (nearly 10 percent) in 2012.[11]

In addition, rental companies, which are a major component of construction equipment manufacturers' customer base, are reported to have re-fleeted their construction and mining equipment lines in 2012. Accounting for an estimated 52 percent of the U.S. construction and mining machinery market, these companies shifted their fleets to incorporate more earthmoving equipment, including hydraulic excavators—which make up the majority of U.S. imports from Japan.[12] Many construction and mining equipment users rented equipment in 2012 rather than purchasing because of perceived economic uncertainty as well as the implementation of the U.S. Environmental Protection Agency (EPA) Tier IV interim emissions regulations for diesel engines. Tier IV equipment, much of which is construction and mining equipment, must meet a "clean diesel" standard that reduces emissions from diesel engines to a level 50 to 96 percent lower than the existing generation; this equipment is perceived to cost more to purchase and operate than Tier III equipment.[13]

Two commodity groups each experienced import declines of at least $500 million in 2012—computers, peripherals, and parts, and semiconductor manufacturing equipment. The decline in U.S. imports from Japan of computers, peripherals, and parts reflects drops in imports of a number of products, including computer parts and accessories, notebook computers, and printers and parts of printing equipment. This trend was driven

[8] Wards Auto, "U.S. Car and Truck Sales, 1931-2012," January 17, 2013.

[9] The flooding in Thailand affected the supply chain for some Japanese companies. METI, *White Paper on International Economy and Trade 2012*, December 18, 2012, 385, 388–389.

[10] JETRO, "2012 Global Trade and Investment Report," August 9, 2012; METI, *White Paper on International Economy and Trade 2012*, 385, 390–395.

[11] Bureau of Census website, "Annual Value of Construction Put in Place 2002–2012," http://www.census.gov/const/C30/total.pdf (accessed April 26, 2013).

[12] Manfredi & Associates, "Heard in the Dirt," 2012, 8–9.

[13] Ibid., 8.

by a number of factors, including declining demand for computers and related products.[14] U.S. imports of semiconductor manufacturing equipment from Japan declined by $611 million (11 percent) as U.S. companies reduced spending on equipment. Companies in North America invested heavily in semiconductor equipment in 2011, spending more than any other region, and in 2012 North American investment decreased by about $1 billion (more than 10 percent) from 2011.[15]

[14] Gartner, "Gartner Says Declining Worldwide PC Shipments," January 14, 2013.
[15] Chamness, "2012: A Year in Review," April 11, 2013.

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*Nikkei*. "Bristol-Myers' Japan Unit to Enlarge Staff 50%," April 16, 2013.

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# Mexico

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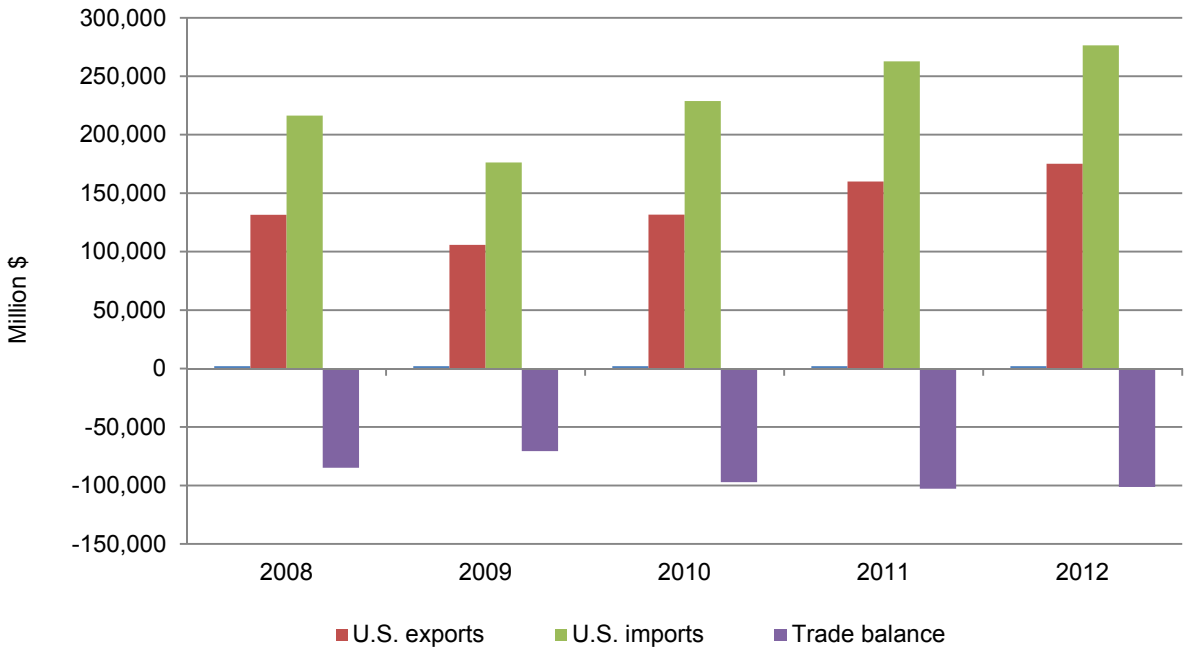
## *Change in 2012 from 2011:*

**U.S. trade deficit: Decreased by $1.5 billion (2 percent) to $101.2 billion**
**U.S. exports: Increased by $15.2 billion (10 percent) to $175.2 billion**
**U.S. imports: Increased by $13.7 billion (5 percent) to $276.4 billion**

The U.S. merchandise trade deficit with Mexico decreased by $1.5 billion (2 percent) to $101.2 billion in 2012, as increased exports outpaced import growth (figure MX.1 and table MX.1). Transportation equipment and electronic products continued to account for the majority of trade with Mexico in 2012 (24 percent and 19 percent, respectively).

**FIGURE MX.1** Mexico: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, 2008–12




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

**TABLE MX.1 Mexico: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 16,112 | 12,911 | 14,594 | 18,425 | 18,981 | 556 | 3.0 |
| Forest products | 4,837 | 4,162 | 4,891 | 5,067 | 5,239 | 171 | 3.4 |
| Chemicals and related products | 22,882 | 20,313 | 23,869 | 27,670 | 30,652 | 2,982 | 10.8 |
| Energy-related products | 11,329 | 7,948 | 14,471 | 23,652 | 24,152 | 500 | 2.1 |
| Textiles and apparel | 3,718 | 3,109 | 3,680 | 4,075 | 3,925 | -150 | -3.7 |
| Footwear | 79 | 63 | 79 | 65 | 57 | -8 | -11.8 |
| Minerals and metals | 13,492 | 9,603 | 12,450 | 15,764 | 18,003 | 2,239 | 14.2 |
| Machinery | 12,532 | 10,442 | 11,655 | 13,450 | 15,508 | 2,058 | 15.3 |
| Transportation equipment | 21,572 | 16,804 | 22,528 | 27,130 | 31,213 | 4,083 | 15.0 |
| Electronic products | 18,240 | 14,901 | 16,537 | 16,733 | 18,945 | 2,212 | 13.2 |
| Miscellaneous manufactures | 1,650 | 1,511 | 1,633 | 1,755 | 1,890 | 135 | 7.7 |
| Special provisions | 5,064 | 3,951 | 5,215 | 6,126 | 6,596 | 470 | 7.7 |
| Total | 131,507 | 105,718 | 131,602 | 159,910 | 175,159 | 15,249 | 9.5 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 12,059 | 12,460 | 14,690 | 17,122 | 17,732 | 611 | 3.6 |
| Forest products | 1,457 | 1,201 | 1,369 | 1,490 | 1,525 | 34 | 2.3 |
| Chemicals and related products | 6,820 | 5,767 | 7,059 | 8,374 | 9,101 | 727 | 8.7 |
| Energy-related products | 42,626 | 24,214 | 33,102 | 44,475 | 39,375 | -5,100 | -11.5 |
| Textiles and apparel | 5,957 | 5,177 | 5,537 | 5,881 | 5,605 | -276 | -4.7 |
| Footwear | 255 | 254 | 319 | 371 | 492 | 121 | 32.6 |
| Minerals and metals | 14,715 | 12,142 | 16,236 | 21,944 | 22,174 | 230 | 1.1 |
| Machinery | 20,028 | 16,584 | 20,548 | 23,144 | 25,280 | 2,136 | 9.2 |
| Transportation equipment | 48,042 | 37,697 | 57,439 | 67,167 | 77,547 | 10,380 | 15.5 |
| Electronic products | 53,228 | 50,325 | 62,049 | 61,996 | 65,344 | 3,348 | 5.4 |
| Miscellaneous manufactures | 3,483 | 3,013 | 3,539 | 3,908 | 4,976 | 1,068 | 27.3 |
| Special provisions | 7,658 | 7,473 | 6,938 | 6,798 | 7,258 | 459 | 6.8 |
| Total | 216,328 | 176,309 | 228,824 | 262,671 | 276,408 | 13,737 | 5.2 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | 4,053 | 452 | -96 | 1,303 | 1,249 | -54 | -4.2 |
| Forest products | 3,380 | 2,961 | 3,522 | 3,577 | 3,714 | 137 | 3.8 |
| Chemicals and related products | 16,062 | 14,546 | 16,810 | 19,296 | 21,551 | 2,255 | 11.7 |
| Energy-related products | -31,297 | -16,267 | -18,631 | -20,823 | -15,223 | 5,600 | 26.9 |
| Textiles and apparel | -2,239 | -2,068 | -1,857 | -1,806 | -1,680 | 126 | 7.0 |
| Footwear | -176 | -191 | -239 | -307 | -435 | -129 | -41.9 |
| Minerals and metals | -1,223 | -2,540 | -3,786 | -6,180 | -4,171 | 2,009 | 32.5 |
| Machinery | -7,496 | -6,142 | -8,893 | -9,695 | -9,773 | -78 | -0.8 |
| Transportation equipment | -26,470 | -20,892 | -34,912 | -40,037 | -46,334 | -6,297 | -15.7 |
| Electronic products | -34,988 | -35,424 | -45,511 | -45,263 | -46,398 | -1,135 | -2.5 |
| Miscellaneous manufactures | -1,832 | -1,502 | -1,906 | -2,154 | -3,087 | -933 | -43.3 |
| Special provisions | -2,594 | -3,523 | -1,722 | -673 | -662 | 11 | 1.6 |
| Total | -84,821 | -70,591 | -97,222 | -102,761 | -101,249 | 1,512 | 1.5 |

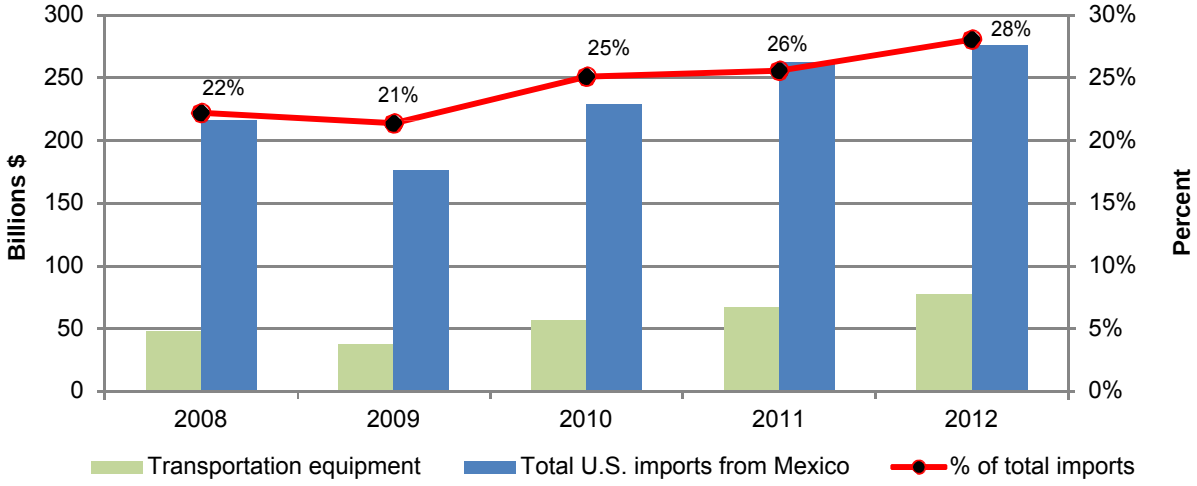
*Source*: Compiled from official statistics of the U.S. Department of Commerce.

*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. Sectors are ordered by the level of processing of the products classified therein within each section, from the least to the most heavily processed.

U.S. exports to Mexico, the third-largest individual U.S. trading partner (after Canada and China), increased by $15.2 billion (10 percent) to $175.2 billion in 2012, principally as a result of increased exports of transportation equipment (particularly motor vehicle parts) and chemicals and related products. Minerals and metals and electronic products were other major sectors whose exports to Mexico increased.

U.S. imports from Mexico increased by $13.7 billion (5 percent) to $276.4 billion, owing to increased imports of transportation equipment (specifically motor vehicles and certain motor vehicle parts) (figure MX.2) and electronic products—especially computers and peripherals and consumer electronics. The overall expansion of U.S. imports from Mexico was somewhat offset by a $5.1 billion drop in imports from the energy-related products sector (mostly crude petroleum).

**FIGURE MX. 2** U.S. imports of transportation equipment from Mexico have been growing as a share of total imports from the country, 2008–12




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

*Note:* Export values are based on f.a.s. value, U.S. port of export.

## *U.S. Exports*

In 2012, U.S. exports to Mexico increased in eight of the nine sectors discussed in this report, with transportation equipment and chemicals and related products representing the largest categories of growth (table MX.2). The widespread growth of U.S. exports to Mexico likely reflected Mexico's burgeoning economy; the country's gross domestic product (GDP) expanded by 3.8 percent in 2012,[1] a rate exceeding the United States' 2.8 percent growth.

[1] CIA, *World Factbook*, 2013.

**TABLE MX.2 Mexico: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Computers, peripherals, and parts (EL017) | 3,621 | 2,302 | 2,169 | 1,925 | 3,224 | 1,299 | 67.5 |
| Transportation equipment: | | | | | | | |
| Certain motor-vehicle parts (TE010) | 7,932 | 6,788 | 10,113 | 12,349 | 13,380 | 1,032 | 8.4 |
| Aircraft, spacecraft, and related equipment (TE013) | 1,065 | 1,308 | 1,302 | 1,468 | 2,331 | 863 | 58.8 |
| Construction and mining equipment (TE004) | 1,662 | 1,440 | 1,311 | 1,628 | 2,429 | 801 | 49.2 |
| Steel mill products (MM025) | 3,022 | 2,042 | 2,677 | 3,683 | 4,361 | 679 | 18.4 |
| Miscellaneous plastic products (CH033) | 4,815 | 4,352 | 5,142 | 5,497 | 6,169 | 672 | 12.2 |
| **Decreases:** | | | | | | | |
| Miscellaneous textile products (TX006) | 346 | 334 | 403 | 528 | 523 | -4 | -0.9 |
| **All other** | 109,045 | 87,151 | 108,487 | 132,834 | 142,742 | 9,908 | 7.5 |
| Total | 131,507 | 105,718 | 131,602 | 159,910 | 175,159 | 15,249 | 9.5 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Motor vehicles (TE009) | 22,205 | 18,628 | 27,763 | 30,843 | 35,683 | 4,840 | 15.7 |
| Certain motor-vehicle parts (TE010) | 16,213 | 12,487 | 19,364 | 22,624 | 26,591 | 3,967 | 17.5 |
| Internal combustion piston engines, other than for aircraft (TE002) | 4,174 | 2,652 | 4,834 | 6,378 | 6,856 | 478 | 7.5 |
| Electronic products: | | | | | | | |
| Computers, peripherals, and parts (EL017) | 6,556 | 7,847 | 13,764 | 14,757 | 16,230 | 1,473 | 10.0 |
| Consumer electronics (EL003) | 19,717 | 16,184 | 16,976 | 16,378 | 17,473 | 1,095 | 6.7 |
| Circuit apparatus assemblies (EL012) | 1,991 | 1,614 | 2,166 | 2,417 | 2,932 | 515 | 21.3 |
| **Decreases** | | | | | | | |
| Energy-related products: | | | | | | | |
| Crude petroleum (EP004) | 37,629 | 20,962 | 29,152 | 40,165 | 36,776 | -3,389 | -8.4 |
| Petroleum products (EP005) | 4,677 | 3,029 | 3,810 | 4,269 | 2,571 | -1,698 | -39.8 |
| **All other** | 103,165 | 92,905 | 110,996 | 124,840 | 131,297 | 6,457 | 5.2 |
| Total | 216,328 | 176,309 | 228,824 | 262,671 | 276,408 | 13,737 | 5.2 |

*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.

Transportation equipment, which was the largest U.S. export sector to Mexico in 2012, grew by $4.1 billion. Exports of motor vehicle parts fueled one-quarter of this sector's growth, stemming from greater demand from vehicle manufacturers in Mexico. The country is growing in importance as a vehicle production platform, a role that is driving Mexico's demand for associated parts. For example, motor vehicle parts accounted for over 40 percent of U.S. exports of transportation equipment to Mexico in 2012. This trend also reflects the integration of the North American motor vehicle industry.

U.S. exports of transportation equipment were also buoyed by growth in exports of aircraft, spacecraft, and related equipment and of construction and mining equipment. Virtually all of the increase in exports of aircraft, spacecraft, and related equipment was of civilian aircraft, engines, and equipment. Although greater detail is unavailable, the increase in exports of parts and engines could be partly attributed to new aircraft production plants in Mexico for Learjet, Cessna, and other aircraft companies.[2] Increased U.S. exports of construction and mining equipment are likely the result of a new emphasis by Mexico on building up infrastructure to increase its competitiveness.[3]

Much of the $3.0 billion increase in exports within the chemicals and related products sector can be attributed to exports of miscellaneous plastic products, which grew by $672 million (11 percent) and accounted for 16 percent of sector exports. Since this product grouping covers a wide variety of products, it is difficult to attribute increased U.S. exports to factors more specific than a general improvement in the Mexican economy.[4]

## *U.S. Imports*

The largest absolute increases in imports from Mexico in 2012 were of transportation equipment and electronic products. The majority of the transportation equipment sector's growth was due to increased U.S. motor vehicle imports. During 2012, demand for passenger vehicles in the U.S. market grew by 14 percent, reflecting both greater availability of credit to finance these goods and a resurgence of spending following widespread consumer restraint during the economic recession of 2008–09.[5]

As previously discussed, Mexico has become a popular manufacturing destination for multinational firms seeking to lower production costs and export to large markets, such as the United States.[6] Mexico's participation in several free trade agreements, including the North American Free Trade Agreement (NAFTA), has also increased the attractiveness of the country as a motor vehicle manufacturing hub. Vehicle manufacturers headquartered in the United States, Asia, and Europe commonly produce in Mexico, taking advantage of lower costs, and then export duty free into the United States and other countries. Motor vehicle production in Mexico grew by 13 percent in 2012 to 2.9 million units.[7]

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[2] *Maquiladora News*, "Manufacturing in Mexico: Bombardier Learjet 85" (accessed April 15, 2013); USITC, *Business Jet Aircraft Industry*, April 2012, xviii.

[3] USDOC, U.S. Commercial Service, *Doing Business in Mexico: 2012* (accessed April 20, 2013).

[4] Vardi, "The Mexican Miracle," October 15, 2012.

[5] Automotive News, "U.S. Light Vehicle Sales by Nameplate," January 7, 2013; Cattan and Case, "Mexico to Boost Auto Output 38%," August 28, 2012; EIU, "USA: Automotive Report," October 1, 2012.

[6] Magliano, transcript of podcast interview by The Offshore Group, January 26, 2012.

[7] AMIA, statistical database (accessed April 17, 2013).

U.S. imports of certain motor-vehicle parts from Mexico grew by 16 percent, as Mexico continued to be the leading U.S. supplier of these inputs. U.S. import growth from Mexico for this subgroup reflects, in large part, the integration of the motor vehicle industry in North America owing to NAFTA. The growth in imports from Mexico was likely driven by increased U.S. motor vehicle output in response to improved consumer demand and increased credit availability, as previously discussed.[8] U.S. motor vehicle production rose to 10.3 million units in 2012, up 19 percent from the 2011 total of 8.7 million units.[9]

Investment in the Mexican auto parts industry has also increased, as Asian auto parts producers, for example, have expanded capacity in Mexico to supply their motor vehicle manufacturing customers that have moved there. This shift to Mexico is partly in response to the strong Japanese yen, which has made Mexico more attractive to Japanese producers, and partly due to an effort by these producers to take advantage of Mexico's duty-free access to major markets, including Brazil, the United States, and the European Union, through various free trade agreements. European parts suppliers are also investing in Mexico, with the goal to develop a supply base for both North and South America.[10] As a result, Mexican auto parts production has risen steadily over the last three years, with the value of total production reaching $75 million in 2012.[11] The sector is export oriented and strongly tied to U.S. motor vehicle demand.[12]

The second largest U.S. import category from Mexico in 2012 was electronic products, which reached $65.3 billion after growing by $3.3 billion. Within this sector, imports of computers and peripherals increased by $1.5 billion, or 10 percent. The majority of the increase was in imports of disk drives not entered with systems.

U.S. imports of consumer electronics from Mexico, which grew by $1.1 billion (7 percent), also drove much of the expansion of electronic products imports. Most of this increase was for set-top boxes, which reflected heightened demand for units more capable of streaming information and providing video-on-demand services.

Energy-related products is the only major sector in which U.S. imports from Mexico declined, falling $5.1 billion (or by 12 percent) from $44.5 billion to $39.4 billion in 2012. Crude petroleum accounted for most of this reduction, as the value of U.S. imports from Mexico decreased by $18.0 billion (7 percent) to $228.9 billion, and the volume of U.S. imports decreased by 46.3 million barrels (12 percent) to 355.7 million barrels. The price of U.S. imports of crude petroleum from Mexico increased by only $1 per barrel to $102 in 2012. The decrease in demand for imports of crude petroleum is likely due to higher U.S. production as well as decreased Mexican oil production, which has fallen each year since 2006.[13] U.S. imports of petroleum products from Mexico also fell, from 38.2 million barrels in 2011 to 21.6 million barrels in 2012 as a

[8] Woodall and Klayman, "Auto Industry Posts Best U.S. Sales Year," January 3, 2013.
[9] *Ward's Automotive Reports*, "North America Vehicle Production Summary," January 14, 2013.
[10] EIU, "Mexico Components: Second Thoughts," March 13, 2012.
[11] *MexicoNow*, "Mexico, Fifth Auto Parts Producer in the World," April 4, 2013.
[12] EIU, "Mexico: Automotive Report," February 4, 2013.
[13] EIU, "Mexico Components: Second Thoughts," March 13, 2012; EIU, "Mexico," December 14, 2012.

result of the mild 2011–12 winter, which reduced demand for imports of distillate and residual fuel oils used for heating.[14]

[14] Official statistics of the U.S. Department of Energy. For more information, see the section on energy products in part 3 of this report.

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*MexicoNow*. "Mexico, Fifth Auto Parts Producer in the World: INA," April 4, 2013. http://www.mexico-now.com/newsmn.php?id=5421.

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*Ward's Automotive Reports*. "Ward's North America Vehicle Production Summary," January 14, 2013.

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# Russia

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Decreased by $6.9 billion (27 percent) to $19.1 billion**
**U.S. exports: Increased by $2.3 billion (31 percent) to $10.0 billion**
**U.S. imports: Decreased by $4.6 billion (14 percent) to $29.0 billion**

The U.S. trade deficit with Russia fell by $6.9 billion (27 percent) to $19.1 billion between 2011 and 2012 (table RU.1), largely due to shifts in demand. The top three U.S. export sectors—transportation equipment, machinery, and agricultural products—accounted for 74 percent of total U.S. exports to Russia and grew, in part, due to strong Russian demand and Russia's World Trade Organization (WTO) commitments liberalizing access to the Russian market.[1] The decrease in U.S. imports from Russia was primarily driven by energy-related products. Imports in this sector fell by $3.1 billion (12.7 percent) in 2012 amid reduced U.S. consumption of petroleum products coupled with increased U.S. production of these commodities (table RU.1 and figure RU.1).

## *U.S. Exports*

U.S. exports of transportation equipment to Russia increased by 44 percent to $3.7 billion, $2.2 billion of which was aircraft and motor vehicles (table RU.2). Expanding Russian demand for exports reflected several factors. Aircraft traffic in Russia is expected to increase 6 percent per year over the next 20 years,[2] but the domestic fleet is aging, and production capacity is modest. Western competitors have gained a strong market presence; the share of foreign aircraft in the Russian air fleet was estimated at 74 percent in 2011.[3]

[1] Russia acceded to the WTO in August 2012, and U.S. exports immediately began to benefit from Russia's WTO accession tariff rates.
[2] USDOC, USCS, *Doing Business in Russia*, 2012, 40.
[3] Ibid.

**TABLE RU.1 Russia: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2008–12**

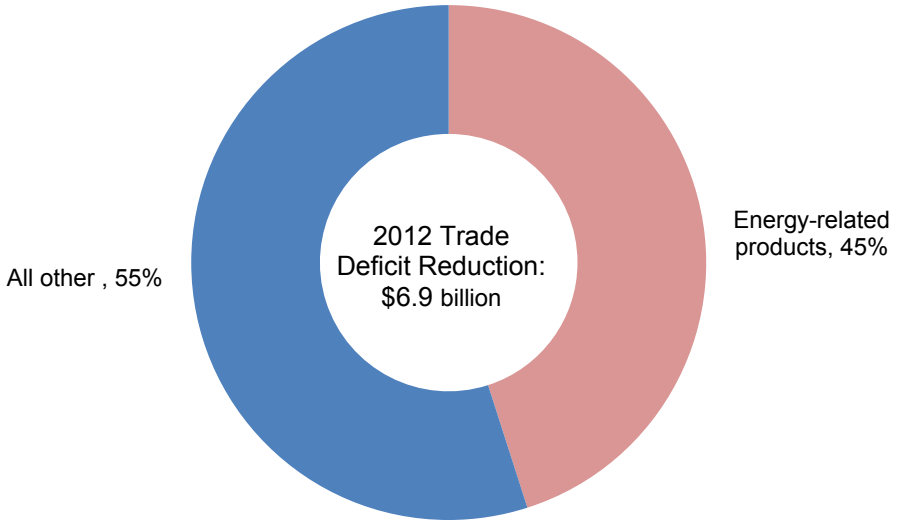
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Agricultural products | 1,865 | 1,455 | 1,190 | 1,290 | 1,706 | 415 | 32.2 |
| Forest products | 77 | 34 | 53 | 91 | 71 | -19 | -21.3 |
| Chemicals and related products | 762 | 526 | 839 | 954 | 1,091 | 137 | 14.4 |
| Energy-related products | 116 | 103 | 187 | 135 | 104 | -31 | -22.8 |
| Textiles and apparel | 101 | 82 | 111 | 109 | 90 | -18 | -16.9 |
| Footwear | 2 | 1 | 1 | 1 | 1 | -1 | -38.0 |
| Minerals and metals | 338 | 202 | 221 | 246 | 227 | -19 | -7.9 |
| Machinery | 1,791 | 992 | 1,116 | 1,340 | 1,794 | 454 | 33.8 |
| Transportation equipment | 2,932 | 1,210 | 1,248 | 2,555 | 3,685 | 1,129 | 44.2 |
| Electronic products | 735 | 468 | 584 | 787 | 1,068 | 281 | 35.8 |
| Miscellaneous manufactures | 190 | 71 | 75 | 101 | 105 | 4 | 4.3 |
| Special provisions | 28 | 16 | 29 | 27 | 34 | 6 | 23.6 |
| Total | 8,936 | 5,160 | 5,657 | 7,637 | 9,976 | 2,339 | 30.6 |
| U.S. imports of merchandise for consumption | | | | | | | |
| Agricultural products | 456 | 466 | 437 | 391 | 322 | -69 | -17.7 |
| Forest products | 142 | 83 | 113 | 112 | 128 | 16 | 14.5 |
| Chemicals and related products | 2,686 | 928 | 1,826 | 2,475 | 1,669 | -806 | -32.6 |
| Energy-related products | 17,313 | 12,768 | 18,248 | 24,757 | 21,617 | -3,140 | -12.7 |
| Textiles and apparel | 9 | 5 | 5 | 5 | 5 | (a) | 9.1 |
| Footwear | 1 | 1 | 1 | 1 | 2 | (a) | 35.3 |
| Minerals and metals | 5,344 | 2,581 | 3,903 | 4,989 | 4,451 | -538 | -10.8 |
| Machinery | 43 | 42 | 63 | 68 | 95 | 27 | 39.8 |
| Transportation equipment | 123 | 146 | 189 | 254 | 245 | -9 | -3.6 |
| Electronic products | 85 | 58 | 73 | 67 | 82 | 15 | 22.1 |
| Miscellaneous manufactures | 367 | 264 | 303 | 456 | 379 | -77 | -16.8 |
| Special provisions | 152 | 79 | 37 | 34 | 53 | 20 | 57.5 |
| Total | 26,721 | 17,420 | 25,199 | 33,610 | 29,049 | -4,561 | -13.6 |
| U.S. merchandise trade balance | | | | | | | |
| Agricultural products | 1,409 | 989 | 753 | 900 | 1,384 | 484 | 53.8 |
| Forest products | -66 | -48 | -61 | -21 | -57 | -36 | -165.5 |
| Chemicals and related products | -1,925 | -402 | -987 | -1,522 | -578 | 943 | 62.0 |
| Energy-related products | -17,197 | -12,664 | -18,061 | -24,622 | -21,513 | 3,109 | 12.6 |
| Textiles and apparel | 92 | 77 | 106 | 104 | 85 | -19 | -18.1 |
| Footwear | 1 | (a) | (a) | (a) | -1 | -1 | (b) |
| Minerals and metals | -5,007 | -2,380 | -3,681 | -4,743 | -4,225 | 519 | 10.9 |
| Machinery | 1,748 | 950 | 1,054 | 1,272 | 1,699 | 427 | 33.5 |
| Transportation equipment | 2,810 | 1,064 | 1,059 | 2,301 | 3,440 | 1,138 | 49.5 |
| Electronic products | 650 | 410 | 511 | 720 | 986 | 267 | 37.0 |
| Miscellaneous manufactures | -176 | -193 | -227 | -355 | -274 | 81 | 22.8 |
| Special provisions | -124 | -64 | -8 | -7 | -20 | -13 | -192.3 |
| Total | -17,785 | -12,261 | -19,542 | -25,973 | -19,073 | 6,900 | 26.6 |

*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. Sectors are ordered by the level of processing of the products classified therein.

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

**FIGURE RU. 1** The energy-related products sector drove nearly half of the reduction in the U.S. bilateral trade deficit with Russia in 2012




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

*Note:* Export values are based on f.a.s. value, U.S. port of export.

**TABLE RU.2 Russia: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Transportation equipment: | | | | | | | |
| Aircraft, spacecraft, and related equipment (TE013) | 520 | 422 | 245 | 676 | 1,447 | 771 | 114.0 |
| Motor vehicles (TE009) | 1,164 | 84 | 142 | 443 | 813 | 370 | 83.4 |
| Cattle and beef (AG002) | 98 | 41 | 147 | 268 | 556 | 288 | 107.6 |
| **Decreases** | | | | | | | |
| Nuclear materials (EP002) | 36 | 50 | 110 | 48 | 15 | -34 | -69.4 |
| Polyvinyl chloride resins in primary forms (CH027) | 16 | 27 | 162 | 216 | 194 | -22 | -10.2 |
| **All other** | 7,103 | 4,535 | 4,851 | 5,985 | 6,951 | 966 | 16.1 |
| Total | 8,936 | 5,160 | 5,657 | 7,637 | 9,976 | 2,339 | 30.6 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Industrial thermal-processing equipment and furnaces (MT003) | 21 | 23 | 44 | 43 | 64 | 22 | 50.6 |
| **Decreases** | | | | | | | |
| Energy-related products: | | | | | | | |
| Crude petroleum (EP004) | 2,974 | 2,065 | 4,062 | 3,514 | 2,093 | -1,420 | -40.4 |
| Petroleum products (EP005) | 12,838 | 9,176 | 12,189 | 19,130 | 18,239 | -892 | -4.7 |
| **All other** | 10,888 | 6,157 | 8,904 | 10,923 | 8,653 | -2,270 | -20.8 |
| Total | 26,721 | 17,420 | 25,199 | 33,610 | 29,049 | -4,561 | -13.6 |

*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 caused 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.

U.S. motor vehicle exports to Russia rose by $370 million in 2012. Growth in U.S. motor vehicle exports reflected Russia's increasing demand for automobiles and the country's growing automobile market. Between 2009 and 2012, new passenger vehicle registrations increased by 101 percent to nearly 3 million cars—more than twice the growth rate of China, the United States, Japan, and Germany during this time.[4] In Russia there is reportedly a strong demand for foreign-branded motor vehicles because of foreign brands' reputation for superior quality; these vehicles are both imported and domestically produced by joint ventures between foreign and domestic companies.[5]

The machinery sector was the second-largest category of U.S. exports to Russia in 2012, increasing by $454 million to $1.8 billion. Exports within this sector were principally driven by a $100 million expansion in exports of farm and garden machinery equipment, again owing to increased demand in Russia. Russia needs to modernize its agricultural inventory significantly; the age of most harvesters in Russia, for example, exceeds their service life.[6] The United States was among the world's top five suppliers of high-value farm equipment—such as tractors and harvesting machines—to Russia in 2012, and U.S. exports, although $282 million below pre-recession levels in 2008, grew 29 percent during 2011–12 to $439 million.

The third-largest U.S. export sector was agricultural products, which reached $1.7 billion following a $415 million (32 percent) increase during 2011–12. This growth was largely attributed to increased exports of meat, such as beef and pork. Russia, the United States' sixth leading export market for meat in 2012, has achieved an 8 percent annual growth rate in meat consumption since 2008 and reached a record-high 10 percent year-on-year rate of growth in 2012, to 146 pounds per capita.[7] This largely reflects the country's economic growth; Russia's gross domestic product (GDP) grew by 3.4 percent in 2012, which compared favorably with growth in the global economy.[8]
Another likely contributor to increased U.S. exports of poultry and beef, in particular, was Russia's August 2012 WTO accession, which liberalized the country's agricultural market. The United States' tariff-rate quota for frozen beef increased from 47,000 to 60,000 metric tons; for certain poultry products, from 350,000 to 364,000 metric tons.[9] Between August and December 2012, U.S. exports of these goods, collectively, grew by $466 million.

## *U.S. Imports*

The $4.6 billion reduction in U.S. imports from Russia was primarily due to declines in the energy-related products sector, which fell by $3.1 billion (12.7 percent) to $21.6 billion. Petroleum products and crude petroleum registered the most significant import declines within this sector.

[4] EIU, "Russia: Automotive Report," April 22, 2013.

[5] USDOC, USCS, *Doing Business in Russia*, 2012, 36.

[6] USDOC, USCS, *Agricultural Machinery Overview 2013*, January 2013.

[7] Waters, "Russia Set to Halt Imports," December 7, 2012; Vorotnikov, "Meat Eating in Russia," February 4, 2013.

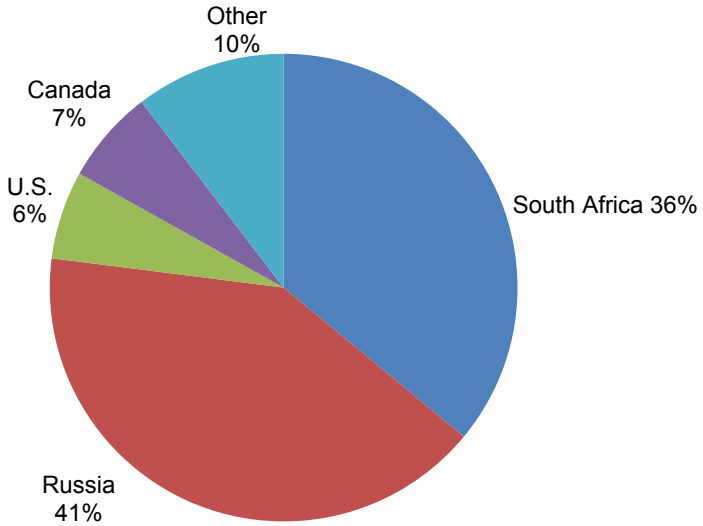
[8] World Bank, *Russian Economic Report 29*, Spring 2013; official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis.

[9] USTR, "Agriculture Products," 2011; USDA, FAS, *Russian Federation: Livestock and Products*, March 14, 2013; USDA, FAS, *Russian Federation: Poultry and Products*, February 26, 2013.

The United States imported 44 million fewer barrels of crude petroleum from Russia in 2012, reflecting increased U.S. domestic production coupled with reduced U.S. demand for petroleum. Similarly, U.S. imports of petroleum products from Russia declined by 8.7 million barrels to 137.6 million barrels in 2012, reflecting decreased U.S. consumption of distillate and residual fuel oils—the primary petroleum products imported from Russia—used for heating because of a mild winter. U.S. imports from Russia of unfinished oils—such as naphtha, kerosene, and residuum—did increase slightly. However, imports of unfinished oils typically represent only 5–10 percent of total energy-products imports from Russia, so this increase was not enough to offset the large drops in distillate and residual fuel oil imports.[10]

U.S. imports of certain minerals and metals declined by $538 million in 2012. This 10.8 percent drop was due largely to decreased imports of palladium, which is principally used to manufacture catalytic converters for automobiles. Russia is the world's largest producer of palladium, and its government stockpile has historically supplied significant quantities to the global market (figure RU.3). Industry sources believe reduced U.S. imports of palladium from Russia are a result of stagnating Russian production and dwindling stockpile supplies.[11]

**FIGURE RU. 3** Russia was the world's largest producer of palladium in 2012




*Source:* U.S. Geological Survey, *Mineral Commodity Summaries: Platinum-Group Metals,* January 2013, http://minerals.usgs.gov/minerals/pubs/commodity/platinum/mcs-2013-plati.pdf.

[10] Information and official statistics of the U.S. Department of Energy.

[11] Schier, "Auto Growth to Crimp Palladium Supply," November 29, 2012; Schier, "North American Palladium," June 7, 2012.

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# Part III: Commodities

This part of the report examines shifts in trade for nine merchandise sectors: agriculture; chemicals and related products; electronic products; energy-related products; forest products; machinery; minerals and metals; textiles, apparel, and footwear; and transportation equipment.

# Agricultural Products

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## *Change in 2012 from 2011:*

**U.S. trade surplus: Decreased by $3.2 billion (11 percent) to $26.9 billion**
**U.S. exports: Increased by $3.6 billion (2 percent) to $149.3 billion**
**U.S. imports: Increased by $6.8 billion (6 percent) to $122.4 billion**

The U.S. trade surplus in agricultural products fell by $3.2 billion (11 percent) to $26.9 billion in 2012, as a small increase in U.S. agricultural exports was more than offset by a larger increase in U.S. imports (table AG.1). Global price increases partially drove the growth in the value of exports and imports, particularly for grains and oilseeds in the second half of 2012, as major droughts in North and South America led to short supply. Demand for agricultural products continued to grow in 2012, both as part of a long-term trend toward higher food demand in developing countries and because most countries continued to recover from the global economic downturn that began in 2008. This strong demand also contributed to the relatively high agricultural commodity prices in 2012.

Leading export markets for U.S. agricultural products were China, Canada, Mexico, and Japan. Exports to China grew rapidly (36 percent), while exports to Canada and Mexico showed moderate increases (8 percent and 3 percent, respectively) and exports to Japan declined moderately by 5 percent). U.S. export growth was led by three commodity groups: oilseeds, animal feeds, and edible nuts. This expansion was largely offset by decreases in exports of cereals, cotton, and ethyl alcohol, resulting in a level of overall agricultural exports similar to that of 2011. The decline in U.S. exports of cereals was due to a severe drought that primarily reduced U.S. corn production (figure AG.1). Lower corn production, in turn, was one of several factors contributing to weaker exports of ethyl alcohol.

The products contributing to growth in U.S. imports were primarily guar gum (chiefly used in food and industrial manufacturing as a thickener, binder, and volume enhancer, but also in drilling muds and fracturing fluids), ethyl alcohol, cattle, and cereals. Agricultural product imports were up from all major partner countries except Thailand. The increases from each country were relatively modest (less than 10 percent), except in the case of India. Imports from India rose by 87 percent, due mainly to the large increase in the value of guar gum imports. Import declines were generally minor, with the more significant decreases in U.S. imports of coffee and tea, shellfish, and fats and oils.

**TABLE AG.1 Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 17,241 | 16,571 | 17,996 | 20,637 | 22,285 | 1,648 | 8.0 |
| Mexico | 16,112 | 12,911 | 14,594 | 18,425 | 18,981 | 556 | 3.0 |
| China | 12,811 | 13,762 | 18,232 | 20,089 | 27,266 | 7,176 | 35.7 |
| Japan | 14,715 | 12,249 | 12,934 | 15,277 | 14,585 | -693 | -4.5 |
| Korea | 5,859 | 4,199 | 5,626 | 7,366 | 6,516 | -850 | -11.5 |
| India | 481 | 673 | 799 | 732 | 865 | 132 | 18.1 |
| Brazil | 646 | 349 | 564 | 1,892 | 695 | -1,197 | -63.3 |
| Thailand | 1,082 | 1,056 | 1,176 | 1,375 | 1,521 | 146 | 10.6 |
| Indonesia | 2,222 | 1,784 | 2,215 | 2,805 | 2,483 | -322 | -11.5 |
| Italy | 1,027 | 869 | 936 | 1,144 | 996 | -148 | -12.9 |
| All other | 48,879 | 38,761 | 46,402 | 55,980 | 53,101 | -2,879 | -5.1 |
| Total | 121,077 | 103,184 | 121,473 | 145,724 | 149,293 | 3,569 | 2.4 |
| EU | 11,527 | 8,582 | 10,371 | 12,036 | 11,994 | -43 | -0.4 |
| OPEC | 6,592 | 4,301 | 5,092 | 6,908 | 6,690 | -219 | -3.2 |
| Latin America | 28,188 | 22,009 | 25,002 | 32,094 | 31,817 | -277 | -0.9 |
| Asia | 46,987 | 43,002 | 52,249 | 61,571 | 66,438 | 4,867 | 7.9 |
| Sub-Saharan Africa | 2,655 | 1,956 | 2,304 | 3,043 | 2,670 | -373 | -12.3 |
| U.S. imports for consumption | | | | | | | |
| Canada | 20,691 | 17,136 | 18,999 | 21,893 | 23,203 | 1,311 | 6.0 |
| Mexico | 12,059 | 12,460 | 14,690 | 17,122 | 17,732 | 611 | 3.6 |
| China | 5,588 | 4,850 | 5,653 | 6,498 | 7,043 | 545 | 8.4 |
| Japan | 685 | 687 | 716 | 759 | 780 | 21 | 2.7 |
| Korea | 391 | 393 | 450 | 510 | 558 | 48 | 9.4 |
| India | 1,629 | 1,314 | 1,806 | 3,105 | 5,790 | 2,685 | 86.5 |
| Brazil | 3,204 | 2,632 | 3,201 | 4,643 | 4,924 | 281 | 6.1 |
| Thailand | 3,258 | 3,266 | 3,679 | 4,094 | 3,768 | -326 | -8.0 |
| Indonesia | 2,175 | 1,967 | 2,149 | 2,494 | 2,507 | 13 | 0.5 |
| Italy | 3,645 | 3,197 | 3,291 | 3,759 | 3,904 | 145 | 3.9 |
| All other | 42,912 | 39,400 | 42,939 | 50,709 | 52,190 | 1,482 | 2.9 |
| Total | 96,238 | 87,301 | 97,572 | 115,585 | 122,400 | 6,815 | 5.9 |
| EU | 17,569 | 15,534 | 16,702 | 18,900 | 19,908 | 1,008 | 5.3 |
| OPEC | 1,591 | 1,679 | 1,692 | 2,031 | 1,972 | -59 | -2.9 |
| Latin America | 29,943 | 28,912 | 32,571 | 40,012 | 41,463 | 1,450 | 3.6 |
| Asia | 19,115 | 16,926 | 19,893 | 24,669 | 27,204 | 2,535 | 10.3 |
| Sub-Saharan Africa | 1,375 | 1,459 | 1,846 | 2,102 | 1,921 | -181 | -8.6 |



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, 2008–12—*Continued***

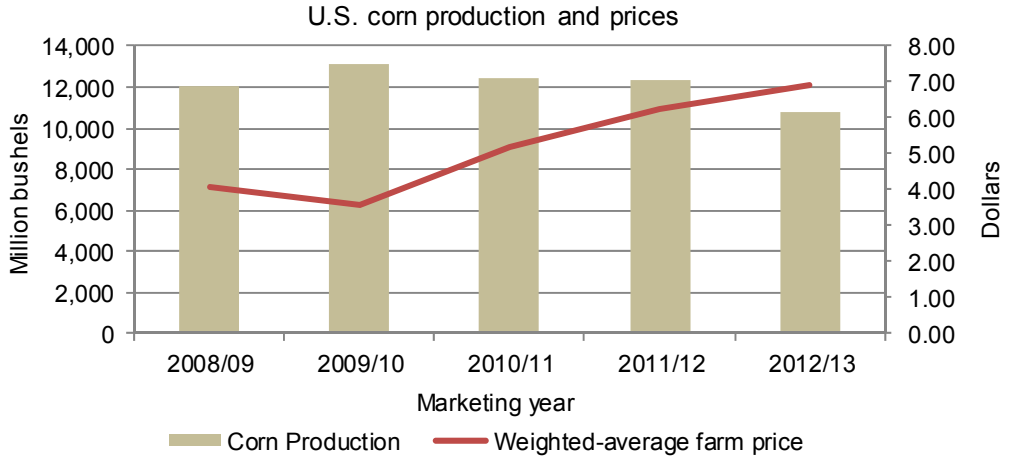
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -3,450 | -565 | -1,003 | -1,255 | -918 | 337 | 26.8 |
| Mexico | 4,053 | 452 | -96 | 1,303 | 1,249 | -54 | -4.2 |
| China | 7,223 | 8,913 | 12,579 | 13,591 | 20,223 | 6,631 | 48.8 |
| Japan | 14,030 | 11,562 | 12,218 | 14,519 | 13,805 | -714 | -4.9 |
| Korea | 5,468 | 3,806 | 5,175 | 6,856 | 5,958 | -899 | -13.1 |
| India | -1,148 | -641 | -1,007 | -2,372 | -4,925 | -2,553 | -107.6 |
| Brazil | -2,558 | -2,284 | -2,637 | -2,751 | -4,229 | -1,478 | -53.7 |
| Thailand | -2,176 | -2,210 | -2,503 | -2,718 | -2,246 | 472 | 17.4 |
| Indonesia | 47 | -182 | 66 | 311 | -24 | -335 | [a] |
| Italy | -2,617 | -2,328 | -2,355 | -2,616 | -2,909 | -293 | -11.2 |
| All other | 5,966 | -639 | 3,464 | 5,272 | 911 | -4,361 | -82.7 |
| Total | 24,839 | 15,883 | 23,901 | 30,139 | 26,893 | -3,246 | -10.8 |
| EU | -6,042 | -6,952 | -6,331 | -6,863 | -7,914 | -1,051 | -15.3 |
| OPEC | 5,001 | 2,623 | 3,400 | 4,878 | 4,718 | -160 | -3.3 |
| Latin America | -1,754 | -6,904 | -7,569 | -7,918 | -9,646 | -1,728 | -21.8 |
| Asia | 27,872 | 26,076 | 32,356 | 36,903 | 39,234 | 2,332 | 6.3 |
| Sub-Saharan Africa | 1,280 | 497 | 459 | 941 | 749 | -192 | -20.4 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

[a]Not meaningful for purposes of comparison

**FIGURE AG.1** U.S. drought and increased demand pushed corn prices near record highs in late 2012




*Source:* USDA, ERS, "Feed Grains: Yearbook TAbles" (accessed May 21, 2013).

## *U.S. Exports*

U.S. export increases in 2012 were led by higher soybean and animal feed exports (table AG.2). Exports of soybeans increased 41 percent by value and 27 percent by volume. The main drivers of strong soybean exports were twofold. First, a drought in South America limited competition from Brazil and Argentina in key export markets, and also raised global prices. Second, there was strong Chinese demand for soybeans, which are used primarily as an input for animal feed in China's large and growing livestock industry.[1] Accordingly, exports of animal feed to China continued their pattern of rapid growth, increasing by 49 percent in 2012.

China was also a source of growing demand for a wide range of other U.S. agricultural products. In 2012, China was the United States' largest export market for agricultural products for the second time in the past three years.[2] U.S. agricultural exports to China grew 36 percent from 2011 to 2012 and 113 percent during 2008–12. Exports of cotton, cereals, poultry, edible nuts, and fats and oils all grew rapidly in 2012. Exports of cereals to China grew despite the overall decline in U.S. cereals exports, because Chinese corn prices hit record highs in early 2012, making U.S. exports more competitive in the Chinese market.[3] As a result, the U.S. shipped greater quantities of corn to China in the spring and summer of 2012 than in the corresponding months of 2011, but quantities fell year-on-year in the autumn,[4] as the U.S. drought began to cut into supplies.

[1] USDOC, "Fact Sheet," February 19, 2013.
[2] Howard, "Record High Chinese Corn Prices Favor U.S. Exports," March 26, 2012.
[3] USITC DataWeb/USDOC (accessed May 20, 2013).
[4] Ibid.

**TABLE AG.2 Agricultural products: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Oilseeds (AG032) | 15,853 | 16,780 | 18,936 | 17,875 | 25,040 | 7,165 | 40.1 |
| Animal feeds (AG013) | 8,467 | 8,498 | 9,677 | 10,103 | 12,476 | 2,372 | 23.5 |
| Edible nuts (AG020) | 3,742 | 4,024 | 4,756 | 5,679 | 6,870 | 1,191 | 21.0 |
| **Decreases** | | | | | | | |
| Cereals (AG030) | 28,625 | 17,240 | 19,930 | 28,110 | 20,347 | -7,763 | -27.6 |
| Cotton, not carded or combed (AG049) | 4,829 | 3,384 | 5,746 | 8,424 | 6,246 | -2,178 | -25.9 |
| Ethyl alcohol for nonbeverage purposes (AG050) | 374 | 245 | 883 | 3,260 | 1,927 | -1,333 | -40.9 |
| **All other** | 59,187 | 53,012 | 61,546 | 72,273 | 76,389 | 4,116 | 5.7 |
| Total | 121,077 | 103,184 | 121,473 | 145,724 | 149,293 | 3,569 | 2.4 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Miscellaneous vegetable substances (AG017) | 1,407 | 1,280 | 1,465 | 2,349 | 5,042 | 2,693 | 114.7 |
| Ethyl alcohol for nonbeverage purposes (AG050) | 1,260 | 564 | 326 | 903 | 1,839 | 937 | 103.8 |
| Cattle and beef (AG002) | 4,524 | 3,784 | 4,314 | 4,457 | 5,353 | 897 | 20.1 |
| Cereals (AG030) | 2,496 | 1,808 | 1,610 | 1,930 | 2,637 | 708 | 36.7 |
| **Decreases** | | | | | | | |
| Coffee and tea (AG028) | 4,855 | 4,509 | 5,469 | 8,666 | 7,618 | -1,048 | -12.1 |
| Shellfish (AG009) | 7,379 | 6,587 | 7,469 | 8,704 | 8,055 | -649 | -7.5 |
| Animal or vegetable fats and oils (AG033) | 5,261 | 3,779 | 4,306 | 6,558 | 5,965 | -593 | -9.0 |
| Sugar (AG012A) | 1,117 | 1,246 | 2,046 | 2,867 | 2,351 | -516 | -18.0 |
| **All other** | 67,937 | 63,744 | 70,567 | 79,152 | 83,538 | 4,387 | 5.5 |
| Total | 96,238 | 87,301 | 97,572 | 115,585 | 122,400 | 6,815 | 5.9 |

*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.

U.S. edible nut exports increased 21 percent, to $6.9 billion, primarily due to higher almond prices and strong demand for U.S. nuts in a number of markets. Almonds, which account for nearly one-half of U.S. nut exports, experienced a record-high crop value in 2012. The increase in production value was driven entirely by higher prices; production volume was down 2 percent compared to 2011.[5] Top markets for U.S. nut exports were Hong Kong, Canada, Germany, Spain, China, India, and Japan. Exports grew to each of these markets except Spain, where exports were virtually unchanged. Notably, exports to China grew by 93 percent and to Hong Kong by 48 percent over 2011.

A severe drought limited U.S. agricultural exports in 2012. The drought was the most extensive since the 1950s, affecting 80 percent of U.S. agricultural land.[6] Concentrated in the Midwest, the drought affected primarily corn and soybean crops. The lower corn harvest was the principal reason for the 28 percent drop in U.S. cereals exports, to $20.3 billion, as the U.S. lost share in export markets to competitors such as Brazil.[7]

Wheat, the U.S.'s second-largest cereal crop, was only marginally affected by the drought directly. But the short supply of other grains drove wheat prices sharply higher, as wheat was in demand as a substitute for other grains.[8] Largely as a result of increased domestic demand, the value of wheat exports also declined 27 percent in 2012.

U.S. exports of ethyl alcohol for non-beverage purposes totaled $1.9 billion in 2012, down 41 percent from 2011, but still well above 2008–10 levels. Changes in U.S. non-beverage ethyl alcohol production and exports are driven by the fuel ethanol market. Drivers of the export decrease included the effects of the drought, which reduced the corn supplies used in much of U.S. ethyl alcohol production, and declining demand for fuel as a result of economic conditions in some countries and increased fuel efficiency. Government policies in key markets also curtailed U.S. exports; in the European Union (EU), a customs ruling and trade remedy cases against U.S. ethanol[9] reduced U.S. exports, while in Brazil, government-controlled gasoline prices and a change in the law that lowered the amount of ethyl alcohol used in fuel ethanol blends weakened demand for U.S. ethanol.[10] As a result, in 2012, exports of non-beverage ethyl alcohol to the EU and Brazil fell by 44 percent and 78 percent, respectively.

[5] Huntrods, "Nuts," April 2013.
[6] USDA ERS, "U.S. Drought 2012," May 6, 2013.
[7] McConnell, Lynch, and Fry, "King Corn versus the Safrinha," March 2013.
[8] U.S. Wheat Associates, "Wheat Letter," July 19, 2012.
[9] ICTSD, "EU Confirms Ethanol Duties on Imports from U.S.," February 27, 2013.
[10] Bevill, "Reduced Brazilian Mandate," September 8, 2011.

## *U.S. Imports*

The largest import shift was in miscellaneous vegetable substances; imports in this sector increased by 115 percent to approximately $5 billion in 2012. This shift was mainly due to an increase of more than 250 percent in the value of U.S. imports of guar gum from India, which is the source of about 80 percent of the world's guar gum. Besides being used in food and industrial manufacturing as a thickener, binder, and volume enhancer, guar gum is also used in drilling muds and fracturing fluids. The recent rise in hydraulic fracturing in the United States has increased demand for guar gum for these purposes. The rise in U.S. imports of guar gum in 2012 was the result of a buildup of stocks by U.S. shale-gas companies that feared a shortage due to an ongoing drought in India's main growing region.[11] This increased demand, plus a speculative bubble, drove the price of guar gum up by 900 percent in 2012.[12]

Other commodity groups showing import increases included cereals, animal feeds, and cattle and beef. The increases in imports for cereals and animal feeds were primarily due to lower domestic supplies as a result of the U.S. drought. The import increases were similar for values and volumes; cereal imports rose 37 percent by value and 39 percent by volume, while animal feed imports rose 29 percent by value and 24 percent by volume. The increase in U.S. imports of cattle was primarily due to the closing of a major packing plant in Canada in May 2012. The closure led to more imports of cattle from Canada to be processed in the United States.[13]

Imports of ethyl alcohol for non-beverage purposes rose by 104 percent to $1.8 billion. The main reason for this increase was higher demand for and supply of sugarcane ethanol. Sugarcane ethanol, unlike corn ethanol, meets mandates for advanced biofuels under the Renewable Fuel Standard and the California Low Carbon Fuel Standard.[14] In addition, Brazilian production of sugarcane ethanol in 2012 was high and domestic demand low, increasing the supply available for export to the United States.

[11] Mukherji, "For Guar Gum, A Bubble Goes Pop," December 5, 2012.
[12] Mishra, "Guar Gum Exports From India to Drop on Halliburton Stocks," September 3, 2012.
[13] CME Group, *Daily Livestock Report,* April 25, 2013.
[14] *Minnesota Farm Guide,* "U.S. Policies Should Not Favor Sugarcane Ethanol," February 2013.

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Mishra, Prabhudatta. "Guar Gum Exports from India to Drop on Halliburton Stocks." Bloomberg, September 3, 2012.

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U.S. Wheat Associates. "Wheat Letter," July 19, 2012. http://www.uswheat.org/newsEvents/wheatLetter/doc/80F006582D39828E85257A40006D4302?OpenDocument.

# Chemicals and Related Products

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Decreased by $5.5 billion (14 percent) to $34.7 billion**
**U.S. exports: Increased by $3.5 billion (2 percent) to $217.5 billion**
**U.S. imports: Decreased by $2.1 billion (1 percent) to $252.2 billion**

After increasing steadily from 2009 to 2011, the U.S. trade deficit in chemicals and related products shrank by $5.5 billion (14 percent) in 2012 (table CH.1). Having made strong gains in both imports and exports through 2011, U.S. exports slowed in 2012, growing by only 2 percent, while U.S. imports declined by 1 percent. The loss of momentum in both flows was largely attributed to weaker markets in the European Union (EU)[1] and China and slow growth in the United States. On a sector basis, pharmaceuticals accounted for the largest share of U.S. trade in chemicals over the entire period, representing about one quarter of exports and 35–45 percent of imports.

## *U.S. Exports*

U.S. exports of chemicals increased by $3.5 billion (1.6 percent) to $217.5 billion in 2012. The low growth rate (compared to 19 percent in 2010 and 9 percent in 2011) was attributed largely to the recession in the EU and slowing demand in the Chinese market. While annual U.S. export levels to the EU have fluctuated in the past, this tendency has been less pronounced in recent years, remaining almost constant in 2011–12. Products such as inorganic chemicals, petrochemicals, and plastic resins were among the products affected by the economic downturn in the EU, largely as a result of declining demand from the automotive and construction sectors (table CH.2).[2] Although overall U.S. exports of chemicals to Asia grew by 23 percent during 2008–12, these exports declined by 4 percent between 2011 and 2012. Notably, U.S. exports of chemicals to China decreased by 5 percent in 2012. Products accounting for much of this decrease included intermediate chemicals and some end products, such as pesticides and paints, likely reflecting the widespread contraction in China's manufacturing sector.[3]

[1] Industry sources estimate that as much as 40 percent of U.S.-EU trade in chemicals is accounted for by intra-company trade. Cefic and ACC, "European Commission Public Consultation," April 23, 2012.

[2] Industry sources estimate that as much as 40 percent of U.S.-EU trade in chemicals is accounted for by intra-company trade. Cefic and ACC, "European Commission Public Consultation," April 23, 2012.

[3] Swift et al., "Year-End 2012 Situation and Outlook," December 2012, 3; Sinclair, "Batting for a Better 2013," January 2013.

**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, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 30,657 | 26,743 | 31,281 | 35,319 | 36,027 | 708 | 2.0 |
| China | 9,885 | 10,643 | 13,344 | 15,021 | 14,205 | -817 | -5.4 |
| Mexico | 22,882 | 20,313 | 23,869 | 27,670 | 30,652 | 2,982 | 10.8 |
| Germany | 10,658 | 10,580 | 10,830 | 7,806 | 7,500 | -305 | -3.9 |
| Ireland | 1,788 | 1,732 | 2,147 | 1,987 | 2,194 | 207 | 10.4 |
| Japan | 9,911 | 7,958 | 10,741 | 11,609 | 12,201 | 592 | 5.1 |
| United Kingdom | 7,844 | 7,488 | 8,116 | 8,756 | 8,449 | -307 | -3.5 |
| Belgium | 10,581 | 8,568 | 10,431 | 11,715 | 12,281 | 566 | 4.8 |
| France | 5,186 | 4,973 | 5,428 | 4,968 | 5,445 | 476 | 9.6 |
| Switzerland | 3,275 | 2,804 | 2,849 | 2,927 | 2,349 | -578 | -19.7 |
| All other | 77,117 | 64,146 | 77,989 | 86,204 | 86,149 | -55 | -0.1 |
| Total | 189,784 | 165,948 | 197,026 | 213,983 | 217,452 | 3,469 | 1.6 |
| EU | 55,958 | 51,116 | 55,292 | 53,653 | 54,424 | 771 | 1.4 |
| OPEC | 5,236 | 4,130 | 5,175 | 6,272 | 6,685 | 412 | 6.6 |
| Latin America | 44,974 | 37,042 | 45,653 | 53,373 | 56,985 | 3,612 | 6.8 |
| Asia | 43,047 | 37,564 | 49,179 | 54,955 | 53,034 | -1,921 | -3.5 |
| Sub-Saharan Africa | 1,533 | 1,459 | 1,596 | 1,916 | 2,048 | 132 | 6.9 |
| U.S. imports for consumption | | | | | | | |
| Canada | 33,124 | 25,021 | 30,037 | 34,515 | 34,161 | -355 | -1.0 |
| China | 20,918 | 17,510 | 21,319 | 25,637 | 27,975 | 2,338 | 9.1 |
| Mexico | 6,820 | 5,767 | 7,059 | 8,374 | 9,101 | 727 | 8.7 |
| Germany | 17,067 | 14,922 | 15,368 | 17,885 | 19,992 | 2,107 | 11.8 |
| Ireland | 21,839 | 19,953 | 25,260 | 30,795 | 24,715 | -6,080 | -19.7 |
| Japan | 11,315 | 9,985 | 12,013 | 12,269 | 12,433 | 164 | 1.3 |
| United Kingdom | 14,904 | 15,004 | 12,655 | 11,170 | 10,022 | -1,149 | -10.3 |
| Belgium | 4,614 | 5,209 | 5,160 | 4,752 | 3,886 | -866 | -18.2 |
| France | 9,755 | 8,005 | 8,951 | 8,272 | 7,931 | -341 | -4.1 |
| Switzerland | 5,365 | 5,892 | 7,497 | 9,158 | 10,123 | 965 | 10.5 |
| All other | 77,769 | 55,247 | 72,700 | 91,401 | 91,815 | 414 | 0.5 |
| Total | 223,492 | 182,515 | 218,020 | 254,229 | 252,153 | -2,077 | -0.8 |
| EU | 84,791 | 77,571 | 83,661 | 91,513 | 86,329 | -5,184 | -5.7 |
| OPEC | 18,403 | 8,071 | 12,136 | 15,120 | 16,087 | 967 | 6.4 |
| Latin America | 19,472 | 12,927 | 16,974 | 22,187 | 22,739 | 552 | 2.5 |
| Asia | 53,187 | 45,795 | 56,492 | 67,964 | 71,499 | 3,536 | 5.2 |
| Sub-Saharan Africa | 1,415 | 988 | 2,081 | 2,349 | 1,540 | -809 | -34.4 |



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, 2008–12—Continued**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -2,467 | 1,722 | 1,244 | 804 | 1,866 | 1,062 | 132.1 |
| China | -11,033 | -6,867 | -7,975 | -10,616 | -13,771 | -3,154 | -29.7 |
| Mexico | 16,062 | 14,546 | 16,810 | 19,296 | 21,551 | 2,255 | 11.7 |
| Germany | -6,409 | -4,342 | -4,538 | -10,079 | -12,492 | -2,412 | -23.9 |
| Ireland | -20,051 | -18,221 | -23,114 | -28,808 | -22,521 | 6,287 | 21.8 |
| Japan | -1,404 | -2,028 | -1,272 | -660 | -232 | 428 | 64.8 |
| United Kingdom | -7,060 | -7,516 | -4,539 | -2,414 | -1,572 | 841 | 34.9 |
| Belgium | 5,966 | 3,359 | 5,272 | 6,963 | 8,396 | 1,432 | 20.6 |
| France | -4,570 | -3,032 | -3,523 | -3,304 | -2,486 | 818 | 24.7 |
| Switzerland | -2,090 | -3,088 | -4,648 | -6,231 | -7,773 | -1,543 | -24.8 |
| All other | -652 | 8,899 | 5,289 | -5,197 | -5,666 | -469 | -9.0 |
| Total | -33,708 | -16,567 | -20,994 | -40,246 | -34,701 | 5,546 | 13.8 |
| EU | -28,833 | -26,455 | -28,369 | -37,860 | -31,905 | 5,955 | 15.7 |
| OPEC | -13,168 | -3,941 | -6,960 | -8,848 | -9,403 | -555 | -6.3 |
| Latin America | 25,502 | 24,115 | 28,679 | 31,186 | 34,246 | 3,061 | 9.8 |
| Asia | -10,140 | -8,232 | -7,313 | -13,009 | -18,466 | -5,457 | -41.9 |
| Sub-Saharan Africa | 118 | 472 | -485 | -432 | 508 | 941 | [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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

[a]Not meaningful for purposes of comparison.

**TABLE CH.2 Chemicals and related products: Leading changes in U.S. exports and imports, 2008–12**

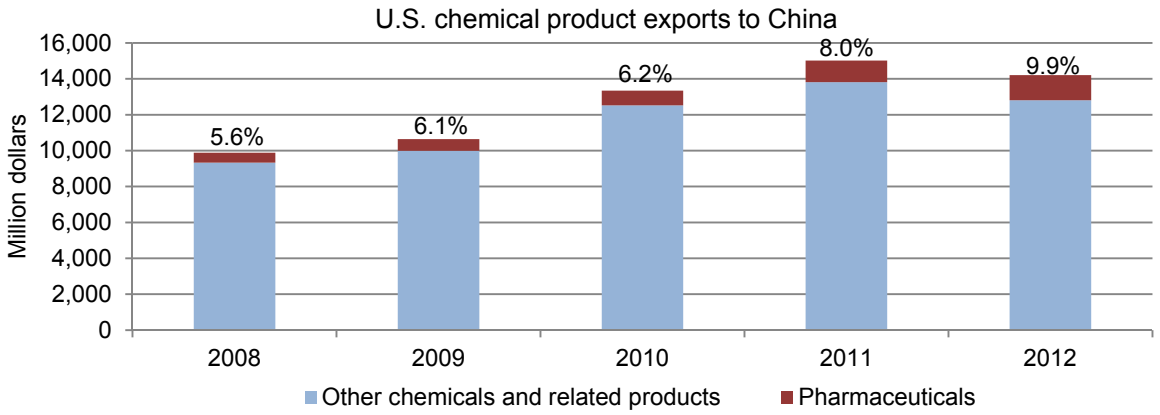
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Medicinal chemicals (CH019) | 42,146 | 46,359 | 47,304 | 45,928 | 48,673 | 2,746 | 6.0 |
| Perfumes, cosmetics, and toiletries (CH021) | 6,271 | 5,911 | 6,600 | 6,892 | 7,495 | 603 | 8.8 |
| Tires and tubes (CH032) | 4,279 | 3,799 | 4,385 | 5,423 | 5,891 | 468 | 8.6 |
| Miscellaneous rubber products (CH034) | 2,912 | 2,442 | 3,121 | 3,500 | 3,880 | 380 | 10.9 |
| Chlor-alkali chemicals (CH009) | 2,044 | 1,601 | 1,583 | 2,123 | 2,393 | 269 | 12.7 |
| **Decreases** | | | | | | | |
| Paints, inks, and related items, and certain components thereof (CH011) | 5,914 | 5,195 | 6,937 | 8,185 | 7,542 | -643 | -7.9 |
| Fertilizers (CH010) | 7,171 | 3,684 | 3,941 | 5,429 | 4,984 | -444 | -8.2 |
| Polypropylene resins in primary forms (CH026) | 3,563 | 2,659 | 3,085 | 3,442 | 3,133 | -309 | -9.0 |
| Major primary olefins (CH001) | 685 | 439 | 587 | 887 | 620 | -267 | -30.1 |
| **All other** | 114,800 | 93,858 | 119,482 | 132,175 | 132,840 | 666 | 0.5 |
| Total | 189,784 | 165,948 | 197,026 | 213,983 | 217,452 | 3,469 | 1.6 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Miscellaneous plastic products (CH033) | 22,726 | 19,328 | 22,956 | 25,279 | 27,344 | 2,066 | 8.2 |
| Tires and tubes (CH032) | 9,811 | 8,229 | 10,806 | 13,411 | 14,752 | 1,341 | 10.0 |
| Gelatin (CH035) | 150 | 179 | 181 | 205 | 265 | 60 | 29.5 |
| **Decreases** | | | | | | | |
| Medicinal chemicals (CH019) | 79,943 | 82,417 | 86,603 | 92,732 | 88,771 | -3,961 | -4.3 |
| Major primary olefins (CH001) | 12,812 | 5,931 | 10,496 | 13,079 | 11,148 | -1,931 | -14.8 |
| Natural rubber (CH036) | 2,857 | 1,274 | 2,820 | 4,772 | 3,382 | -1,390 | -29.1 |
| **All other** | 95,192 | 65,157 | 84,157 | 104,752 | 106,490 | 1,739 | 1.7 |
| Total | 223,492 | 182,515 | 218,020 | 254,229 | 252,153 | -2,077 | -0.8 |

*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.

While overall U.S. exports of chemicals to China declined in 2012, exports were up in certain commodity groups. Exports of pharmaceuticals, for example, grew by 16 percent in 2012, tempering the overall decline. China's continued healthcare reform, coupled with growing personal income levels in the country, contributed to a strong, steady increase of 151 percent in U.S. exports of pharmaceuticals to the country during 2008–12 (figure CH.1).[4] U.S. exports to China of chlor-alkali chemicals showed the greatest growth in 2012—a 143 percent increase—largely because of China's buildup of production capacity for polyvinyl chloride (PVC). Chlor-alkali chemicals are an input in the production of PVC, which is used in numerous applications, including products for the housing and construction industries.[5]

**FIGURE CH.1** Phamaceuticals account for an increasingly significant share of U.S.




*Source:* USITC, DataWeb (accessed May 21, 2013).

## *U.S. Imports*

In 2012, U.S. imports of chemicals and related products dipped by $2.0 billion (1 percent) to $252.2 billion after steadily increasing since 2009. On a monthly basis in 2012, U.S. imports increased irregularly through May before slowing through the rest of the year. Industry sources suggested the slowing might be temporary, attributing it to corporate and consumer concern about economic developments in the United States in 2012, including the then-pending "fiscal cliff."[6]

In 2012, import flows from the United States' largest regional partners showed mixed changes, with U.S. imports from Asia increasing by 5 percent while U.S. imports from the EU generally declined. Slow growth in the U.S. chemical industry's downstream manufacturing customer base spurred the overall decline in U.S. imports of chemicals. Within the EU, the largest decline (20 percent) occurred in imports from Ireland, a major

[4] Richburg, "U.S. Exports to China Boom, despite Trade Tensions," March 11, 2012.
[5] De Guzman, "US Chlor-alkali is Benefiting from Natural Gas," June 20, 2011.
[6] Swift et al., "Year-End 2012 Situation and Outlook," December 2012, 3.

U.S. supplier of pharmaceuticals.[7] One industry source cites the expiration of the U.S. patent on as many as 10 blockbuster drugs (e.g., Lipitor) as accounting for much of this decline.[8]

[7] Pharmaceuticals accounted for 90 percent of the value of total chemical imports from Ireland during 2008–12.

[8] King, "Irish Pharma Exports Tumble," August 7, 2012.

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# Electronic Products

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $10.7 billion (5 percent) to $246.8 billion**
**U.S. exports: Increased by $2.5 billion (2 percent) to $167.0 billion**
**U.S. imports: Increased by $13.2 billion (3 percent) to $413.8 billion**

In 2012, the U.S. trade deficit for electronic products increased as import growth (by value) exceeded export growth by $10.7 billion (table EL.1). Domestic import growth reflected strong consumer demand for imported smartphones and mobile computing devices, in particular. The United States imported $2.50 in electronics products for every dollar that U.S. companies exported during 2012.

China remained the United States' largest supplier of electronic products, accounting for 38 percent of U.S. imports of these products in 2012. The U.S. trade deficit with China in electronic products increased by 8 percent. Meanwhile, U.S. exports of electronic products to its largest trading partners within this sector— Mexico, Canada, Japan, and China, respectively—all increased, reflecting higher demand for U.S. measurement equipment and medical devices, in particular, within these key markets.

## *U.S. Exports*

Increased U.S. exports of electronic products, which rose by 1.5 percent to $167 billion in 2012, were principally fueled by export growth in the measuring, testing, and controlling instruments and medical goods subsectors (table EL.2). Nearly 22 percent of U.S. exports of domestically produced electronic products went to Mexico ($18.9 billion) and Canada ($18.5 billion).

U.S. exports of measuring, testing, and controlling instruments recorded the single largest shift, expanding by $1.8 billion. Canada, China, and Mexico remained the three largest U.S. export markets for this commodity group, accounting for a combined one-third share of U.S. exports in 2012. Increased economic activity in these markets, coupled with growing demand from end-use industries for more precision and for embedded computer systems (that is, computers for use in mechanical or electrical systems), created demand for U.S. products in this subgroup.[1]

[1] China's real GDP growth rate increased to 7.5 percent in 2012 from 2011, Canada's GDP at market prices increased by 2.0 percent, and Mexico's GDP at market prices increased by 3.8 percent. OECD, "Developments in Individual OECD Countries," 107–86.

**TABLE EL.1 Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise: | | | | | | | |
| China | 12,375 | 11,133 | 13,493 | 11,889 | 12,331 | 442 | 3.7 |
| Mexico | 18,240 | 14,901 | 16,537 | 16,733 | 18,945 | 2,212 | 13.2 |
| Japan | 9,790 | 8,521 | 9,661 | 10,631 | 11,264 | 632 | 5.9 |
| Canada | 18,462 | 15,217 | 16,692 | 18,207 | 18,455 | 248 | 1.4 |
| Malaysia | 6,812 | 4,889 | 6,451 | 5,807 | 4,709 | -1,098 | -18.9 |
| Korea | 6,426 | 5,437 | 6,378 | 7,158 | 7,172 | 14 | 0.2 |
| Germany | 8,891 | 7,639 | 8,183 | 8,203 | 7,954 | -249 | -3.0 |
| Taiwan | 6,391 | 3,732 | 4,659 | 4,929 | 3,735 | -1,193 | -24.2 |
| Thailand | 2,487 | 1,855 | 2,496 | 2,294 | 2,152 | -143 | -6.2 |
| Singapore | 6,512 | 4,709 | 6,131 | 5,716 | 4,836 | -880 | -15.4 |
| All other | 78,396 | 64,905 | 69,150 | 72,971 | 75,450 | 2,480 | 3.4 |
| Total | 174,781 | 142,938 | 159,833 | 164,537 | 167,003 | 2,466 | 1.5 |
| EU-27 | 43,633 | 35,454 | 36,520 | 36,595 | 35,107 | -1,488 | -4.1 |
| OPEC | 5,959 | 5,460 | 5,269 | 6,103 | 7,614 | 1,511 | 24.8 |
| Latin America | 35,500 | 29,098 | 31,812 | 32,908 | 35,908 | 3,000 | 9.1 |
| Asia | 62,931 | 50,161 | 61,228 | 61,588 | 59,538 | -2,050 | -3.3 |
| Sub-Saharan Africa | 1,451 | 1,285 | 1,205 | 1,217 | 1,351 | 134 | 11.0 |
| U.S. imports for consumption: | | | | | | | |
| China | 117,986 | 110,794 | 143,716 | 158,671 | 171,159 | 12,488 | 7.9 |
| Mexico | 53,228 | 50,325 | 62,049 | 61,996 | 65,344 | 3,348 | 5.4 |
| Japan | 30,735 | 22,917 | 26,757 | 26,697 | 26,213 | -485 | -1.8 |
| Canada | 11,830 | 9,626 | 9,449 | 9,758 | 9,513 | -245 | -2.5 |
| Malaysia | 22,608 | 17,142 | 17,892 | 16,602 | 17,100 | 497 | 3.0 |
| Korea | 17,222 | 15,662 | 18,011 | 17,953 | 14,543 | -3,410 | -19.0 |
| Germany | 12,259 | 9,717 | 11,227 | 13,399 | 13,512 | 112 | 0.8 |
| Taiwan | 16,561 | 14,221 | 17,977 | 20,990 | 17,214 | -3,776 | -18.0 |
| Thailand | 9,748 | 7,900 | 9,514 | 9,556 | 10,983 | 1,427 | 14.9 |
| Singapore | 8,476 | 6,788 | 8,060 | 8,039 | 7,879 | -159 | -2.0 |
| All other | 50,973 | 46,330 | 52,964 | 56,930 | 60,308 | 3,378 | 5.9 |
| Total | 351,624 | 311,420 | 377,617 | 400,592 | 413,767 | 13,175 | 3.3 |
| EU-27 | 40,400 | 32,502 | 37,091 | 40,843 | 41,570 | 727 | 1.8 |
| OPEC | 33 | 25 | 27 | 40 | 45 | 5 | 12.7 |
| Latin America | 56,466 | 55,269 | 69,861 | 70,940 | 76,083 | 5,143 | 7.2 |
| Asia | 232,667 | 203,564 | 251,509 | 268,258 | 275,697 | 7,439 | 2.8 |
| Sub-Saharan Africa | 95 | 81 | 87 | 108 | 98 | -10 | -9.5 |



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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance: | | | | | | | |
| China | -105,612 | -99,661 | -130,223 | -146,782 | -158,828 | -12,046 | -8.2 |
| Mexico | -34,988 | -35,424 | -45,511 | -45,263 | -46,398 | -1,135 | -2.5 |
| Japan | -20,944 | -14,395 | -17,095 | -16,066 | -14,949 | 1,117 | 7.0 |
| Canada | 6,632 | 5,591 | 7,243 | 8,448 | 8,942 | 493 | 5.8 |
| Malaysia | -15,796 | -12,253 | -11,441 | -10,795 | -12,391 | -1,596 | -14.8 |
| Korea | -10,796 | -10,225 | -11,633 | -10,795 | -7,371 | 3,424 | 31.7 |
| Germany | -3,368 | -2,078 | -3,044 | -5,196 | -5,558 | -361 | -7.0 |
| Taiwan | -10,170 | -10,489 | -13,318 | -16,061 | -13,478 | 2,582 | 16.1 |
| Thailand | -7,261 | -6,045 | -7,019 | -7,262 | -8,831 | -1,569 | -21.6 |
| Singapore | -1,963 | -2,079 | -1,929 | -2,323 | -3,043 | -720 | -31.0 |
| All other | 27,423 | 18,575 | 16,187 | 16,041 | 15,143 | -898 | -5.6 |
| Total | -176,843 | -168,483 | -217,784 | -236,055 | -246,764 | -10,709 | -4.5 |
| EU-27 | 3,233 | 2,952 | -571 | -4,247 | -6,463 | -2,215 | -52.2 |
| OPEC | 5,926 | 5,435 | 5,242 | 6,063 | 7,569 | 1,506 | 24.8 |
| Latin America | -20,966 | -26,171 | -38,050 | -38,032 | -40,175 | -2,143 | -5.6 |
| Asia | -169,736 | -153,403 | -190,281 | -206,670 | -216,159 | -9,490 | -4.6 |
| Sub-Saharan Africa | 1,356 | 1,204 | 1,117 | 1,109 | 1,253 | 145 | 13.0 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

**TABLE EL.2 Electronic products: Leading changes in U.S. exports and imports, 2008–12**

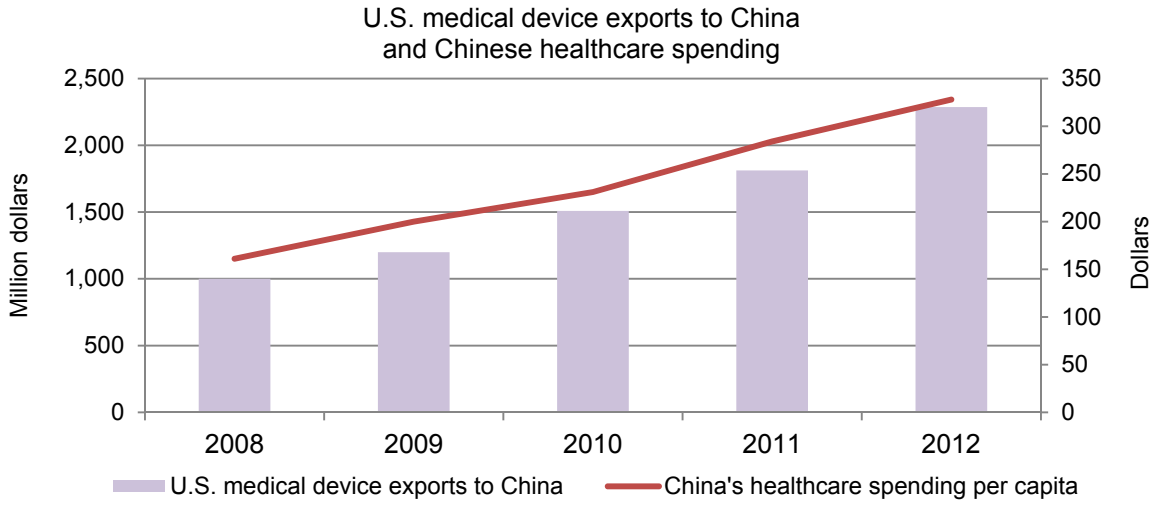
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS:** | | | | | | | |
| **Increases:** | | | | | | | |
| Measuring, testing, and controlling Instruments (EL025) | 22,195 | 19,251 | 22,161 | 24,738 | 26,496 | 1,758 | 7.1 |
| Medical goods (EL022) | 28,415 | 28,647 | 30,604 | 32,298 | 33,471 | 1,173 | 3.6 |
| Circuit apparatus assemblies (EL012) | 2,560 | 2,206 | 2,427 | 2,788 | 3,338 | 550 | 19.7 |
| Optical fibers, optical fiber bundles and cables (EL019) | 842 | 906 | 982 | 893 | 1,165 | 272 | 30.5 |
| **Decreases:** | | | | | | | |
| Semiconductors and integrated circuits (EL015) | 35,809 | 25,058 | 31,267 | 29,188 | 26,436 | -2,752 | -9.4 |
| Television receivers and video monitors (EL003A) | 1,186 | 1,223 | 1,540 | 1,718 | 1,374 | -344 | -20.0 |
| **All other** | 83,773 | 65,646 | 70,853 | 72,915 | 74,723 | 1,808 | 2.5 |
| Total | 174,781 | 142,938 | 159,833 | 164,537 | 167,003 | 2,466 | 1.5 |
| **U.S. IMPORTS:** | | | | | | | |
| **Increases:** | | | | | | | |
| Telecommunications equipment (EL002) | 64,331 | 60,299 | 74,065 | 79,771 | 83,831 | 4,060 | 5.1 |
| Computers, peripherals, and parts (EL017) | 102,338 | 95,391 | 118,898 | 121,300 | 123,283 | 1,983 | 1.6 |
| Measuring, testing, and controlling instruments (EL025) | 18,764 | 14,912 | 18,592 | 21,639 | 23,115 | 1,476 | 6.8 |
| Circuit apparatus assemblies (EL012) | 5,327 | 4,228 | 5,446 | 6,216 | 7,471 | 1,255 | 20.2 |
| Navigational instruments and remote control apparatus (EL005) | 5,794 | 5,501 | 5,341 | 5,405 | 6,390 | 986 | 18.2 |
| **Decreases:** | | | | | | | |
| Miscellaneous electrical equipment (EL016) | 3,857 | 3,638 | 5,587 | 6,841 | 6,105 | -736 | -10.8 |
| Photographic film and paper (EL018) | 1,340 | 1,067 | 1,056 | 999 | 804 | -195 | -19.5 |
| **All other** | 149,871 | 126,384 | 148,631 | 158,422 | 162,768 | 4,346 | 2.7 |
| Total | 351,624 | 311,420 | 377,617 | 400,592 | 413,767 | 13,175 | 3.3 |

*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.

The $1.2 billion expansion of U.S. medical goods exports to in 2012 was principally driven by increased exports to China. The country has one of the world's oldest populations,[2] which has translated into increased demand for orthopedic devices in particular. U.S. exports of these devices to China increased by nearly 80 percent to $286 million in 2012.[3] Further, over the past year, China's healthcare sector spending increased by an estimated $61 billion,[4] with much of this funding being directed towards acquiring medical devices, the majority of which are produced in the United States (figure EL.1).[5]

**FIGURE EL.1** Increased healthcare spending in China has caused U.S. exports of medical devices to more than double since 2008




*Sources:* USITC DataWeb/USDOC (accessed May 21, 2013); EIU, "China: Healthcare and Pharmaceuticals Report," March 4, 2013.

The largest decrease in U.S. exports of electronic products in 2012 was in semiconductors and integrated circuits (exports declined by 9.4 percent to $26.4 billion). Reduced demand for finished products containing dynamic random-access memory (DRAM)—PCs, laptops, and netbooks—were a factor in declining exports.[6] Taiwan, Korea, Singapore, and China, which are the leading computer producers, are the top four export markets for U.S. produced memory devices. These four countries cut their purchases of memory products by 50 percent (by value), and the average selling price also decreased slightly.[7] Taiwan, Korea, Singapore, and China, which are the top four export markets for U.S.-produced memory devices and leading computer producers cut their purchases of memory products by 50 percent (by value), and the average selling price also decreased slightly. The remaining decrease in exports of semiconductors and

[2] *Economist*, "Peak Toil," January 26, 2013.
[3] Compiled by USITC from official statistics from the U.S. Department of Commerce.
[4] EIU, "China: Healthcare and Pharmaceuticals Report," March 4, 2013.
[5] Seven of the world's 10 largest medical device manufacturers (by revenue) are based in the United States. MPO, "The Top 30," July/August 2012
[6] Coughlin, "The Impact of Declining PC Sales on Storage Devices," April 11, 2013; *Solid State Technology*, "H2 NAND Pricing: iPhone 5, DRAM, and Other Influencing Factors," August 17, 2012.
[7] Lineback et al., *The McLean Report*, 2013, 7–9.

integrated circuits resulted from large inventories held by chip suppliers, which lessened the need for additional semiconductor products.[8]

## *U.S. Imports*

U.S. imports of electronic products increased for the third consecutive year, to a record $413.8 billion in 2012. Computers remained by far the largest subgroup of U.S. imports ($123 billion), but increased by only 1.6 percent in 2012. The subgroups with notable import shifts in 2012 were telecommunications equipment (increased by $4.1 billion or 5 percent); measuring, testing, and controlling instruments (increased by $1.5 billion or 7 percent); and circuit apparatus assemblies (increased by $1.3 billion or 20 percent).

U.S. telecommunications imports increased, in large part, because U.S. consumers continued to purchase Internet-enabled "smart" cellular telephones. For instance, Apple released the iPhone 5 in September 2012, reportedly selling more than five million in the three days following the launch.[9] Other companies, including Samsung, Nokia, Motorola, and LG, also imported and launched new U.S. smartphone models. More than half ($43.7 billion) of the $83.3 billion in telecommunications equipment imports are cellphones. China was the largest single source of imports of telecommunications equipment, accounting for 60 percent of U.S. imports. The value of U.S. telecommunications imports from China increased $12 billion, a 32 percent change, reaching $49 billion in 2012.

U.S. imports of measuring, testing, and controlling instruments increased to a record high of $23.1 billion in 2012. Increases in imports from Mexico, China, Germany, Japan, and Singapore accounted for most of this shift, increasing by a collective $1.2 billion (10 percent) to $12.9 billion. The growth in U.S. imports in this subgroup resulted primarily from a general increase in demand from U.S. manufacturing, utilities, and mining firms[10]—major markets for this sector—and the globalization of the industry.[11] Contributing to the rise in imports were intra-company transfers by major U.S. companies and by large global producers with facilities in the U.S. market that have manufacturing operations in Mexico, Germany, China, Japan, and Singapore.

U.S. imports of circuit apparatus assemblies increased by 20 percent in 2012, reaching $7.5 billion. Mexico, China, Germany, Canada, and Japan accounted for three-quarters of these imports. More than 85 percent of the imports in this subgroup include equipment for electric control or the distribution of electricity, such as switchgear for use in wind towers and other electric grid control systems, and also smaller systems (i.e., home appliances). Increased imports in this category were likely driven by the supply chain needs of U.S. manufacturers of appliances and industrial equipment, who are sourcing components globally as they increase domestic activity to meet demand.[12]

[8] Solid State Technologies, "Intel Leads Unexpectedly Large Decline," March 13, 2013.
[9] Apple, "iPhone 5 First Weekend Sales Top Five Million," September 24, 2012.
[10] DOC, BEA, Table 6.1D: National Income without Capital Consumption, March 28, 2013.
[11] IBIS World Inc., "Navigational Instrument Manufacturing in the U.S.," December 2012, 23.
[12] Carbone, "Power Management IC Market Will Rebound," April 2, 2013; Fishman, "The Insourcing Boom," November 28, 2012.

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# Energy-Related Products

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Decreased by $40.6 billion (14 percent) to $256.2 billion**
**U.S. exports: Increased by $8.2 billion (6 percent) to $142.3 billion**
**U.S. imports: Decreased by $32.4 billion (8 percent) to $398.4 billion**

The U.S. trade deficit in the energy-related products sector[1] fell by 14 percent (table EP.1) in 2012, due principally to increased domestic production, lower domestic demand, and increased exports of petroleum products, particularly distillate fuel oils (a product of distillation used for diesel fuels and space heating) and motor fuels (figure EP.1 and table EP.2).

During 2011–12, prices for most energy-related products followed the trends in crude petroleum prices, remaining relatively stable or even declining slightly, albeit from historical highs (figure EP.2).

The world benchmark prices for a barrel of Brent Crude and West Texas Intermediate stabilized in response to increased production by the United States and other non-OPEC [2] suppliers, spurred by rising global consumption. U.S. natural gas prices decreased in 2012 in response to increased U.S. production from shale areas. Global coal prices also declined in 2012 as electric utilities (which have been primary consumers of coal) switched to the cleaner-burning natural gas.

Canada remains the primary U.S. trading partner for energy-related products, and the trade deficit with Canada in 2012 remained relatively stable at roughly $85 billion. By contrast, the U.S. trade deficit in energy-related products with OPEC member countries decreased by 12 percent to $140.9 billion in 2012. Further, the U.S. trade deficit with Latin American countries, which accounted for about 16 percent of the total U.S. trade deficit in this sector in 2012, dropped by 34 percent to $40.6 billion.

[1] The quantity and price data presented in this chapter are derived primarily from official statistics of the U.S. Department of Energy.
[2] OPEC is the Organization of the Petroleum Exporting Countries.

**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, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 16,772 | 10,127 | 12,436 | 17,437 | 18,204 | 768 | 4.4 |
| Mexico | 11,329 | 7,948 | 14,471 | 23,652 | 24,152 | 500 | 2.1 |
| Saudi Arabia | 94 | 70 | 70 | 153 | 135 | -17 | -11.4 |
| Venezuela | 637 | 797 | 654 | 768 | 3,653 | 2,885 | 375.8 |
| Russia | 116 | 103 | 187 | 135 | 104 | -31 | -22.8 |
| Colombia | 1,047 | 1,244 | 2,311 | 2,791 | 3,601 | 810 | 29.0 |
| Nigeria | 448 | 325 | 617 | 631 | 1,005 | 373 | 59.2 |
| Netherlands | 6,256 | 5,304 | 5,926 | 11,632 | 11,532 | -100 | -0.9 |
| Brazil | 2,381 | 2,022 | 4,368 | 6,501 | 7,382 | 880 | 13.5 |
| Iraq | (a) | 4 | 3 | 9 | 7 | -2 | -25.4 |
| All other | 42,658 | 31,882 | 44,425 | 70,379 | 72,520 | 2,141 | 3.0 |
| Total | 81,737 | 59,827 | 85,468 | 134,088 | 142,294 | 8,206 | 6.1 |
| EU | 15,653 | 12,581 | 14,213 | 26,266 | 25,567 | -699 | -2.7 |
| OPEC | 1,921 | 2,652 | 3,585 | 4,500 | 7,665 | 3,165 | 70.3 |
| Latin America | 31,722 | 23,444 | 39,593 | 60,883 | 69,932 | 9,049 | 14.9 |
| Asia | 8,978 | 8,146 | 12,229 | 16,760 | 16,492 | -268 | -1.6 |
| Sub-Saharan Africa | 1,538 | 1,166 | 1,493 | 1,959 | 2,107 | 149 | 7.6 |
| U.S. imports for consumption | | | | | | | |
| Canada | 111,953 | 64,367 | 82,587 | 103,749 | 103,042 | -707 | -0.7 |
| Mexico | 42,626 | 24,214 | 33,102 | 44,475 | 39,375 | -5,100 | -11.5 |
| Saudi Arabia | 48,651 | 18,916 | 26,278 | 38,738 | 45,245 | 6,507 | 16.8 |
| Venezuela | 45,277 | 25,044 | 28,901 | 35,326 | 30,237 | -5,089 | -14.4 |
| Russia | 17,313 | 12,768 | 18,248 | 24,757 | 21,617 | -3,140 | -12.7 |
| Colombia | 8,322 | 6,490 | 10,337 | 14,826 | 17,396 | 2,570 | 17.3 |
| Nigeria | 38,028 | 19,136 | 29,148 | 33,310 | 18,838 | -14,472 | -43.4 |
| Netherlands | 6,606 | 3,458 | 3,750 | 5,296 | 5,437 | 142 | 2.7 |
| Brazil | 8,345 | 6,118 | 7,000 | 8,918 | 8,631 | -287 | -3.2 |
| Iraq | 18,171 | 7,845 | 9,976 | 14,403 | 15,237 | 834 | 5.8 |
| All other | 127,032 | 72,521 | 88,857 | 106,999 | 93,386 | -13,612 | -12.7 |
| Total | 472,325 | 260,878 | 338,184 | 430,796 | 398,441 | -32,355 | -7.5 |
| EU | 33,956 | 18,970 | 22,150 | 26,701 | 27,028 | 327 | 1.2 |
| OPEC | 201,637 | 98,097 | 130,793 | 163,728 | 148,520 | -15,207 | -9.3 |
| Latin America | 124,181 | 73,035 | 92,230 | 122,221 | 110,576 | -11,645 | -9.5 |
| Asia | 7,055 | 4,223 | 7,214 | 8,805 | 8,137 | -668 | -7.6 |
| Sub-Saharan Africa | 71,727 | 37,674 | 51,266 | 58,816 | 36,467 | -22,348 | -38.0 |

**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, 2008–12—*Continued***

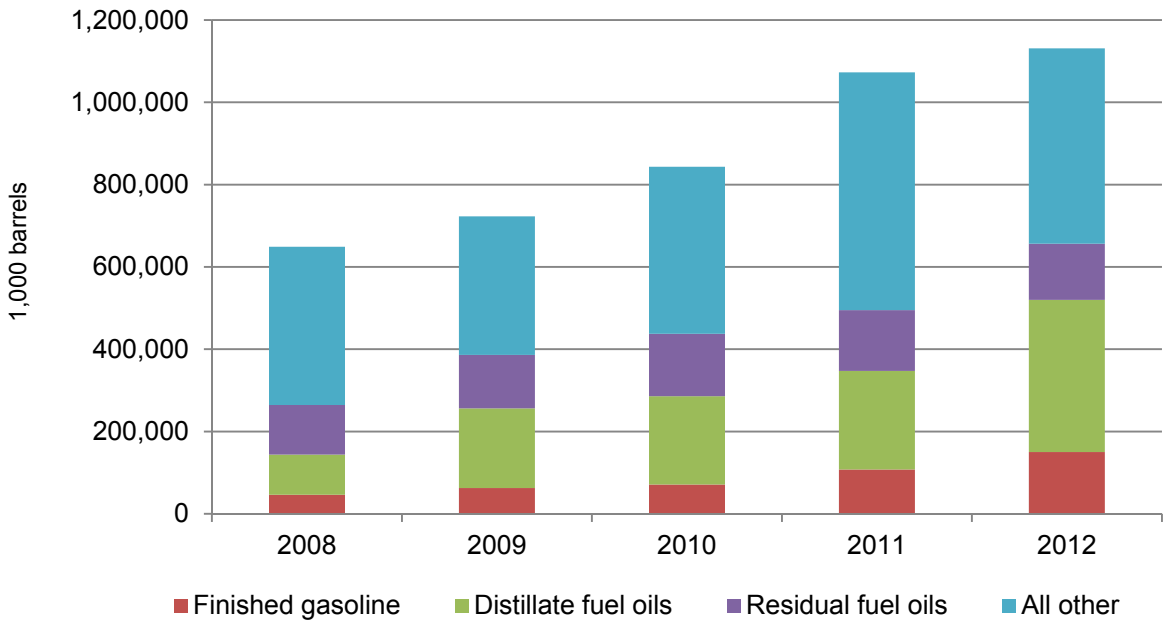
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -95,182 | -54,239 | -70,151 | -86,312 | -84,837 | 1,475 | 1.7 |
| Mexico | -31,297 | -16,267 | -18,631 | -20,823 | -15,223 | 5,600 | 26.9 |
| Saudi Arabia | -48,557 | -18,846 | -26,208 | -38,585 | -45,110 | -6,525 | -16.9 |
| Venezuela | -44,640 | -24,248 | -28,247 | -34,558 | -26,585 | 7,974 | 23.1 |
| Russia | -17,197 | -12,664 | -18,061 | -24,622 | -21,513 | 3,109 | 12.6 |
| Colombia | -7,275 | -5,247 | -8,026 | -12,034 | -13,795 | -1,760 | -14.6 |
| Nigeria | -37,579 | -18,811 | -28,531 | -32,678 | -17,833 | 14,845 | 45.4 |
| Netherlands | -350 | 1,847 | 2,177 | 6,336 | 6,094 | -242 | -3.8 |
| Brazil | -5,965 | -4,096 | -2,633 | -2,417 | -1,250 | 1,167 | 48.3 |
| Iraq | -18,171 | -7,840 | -9,974 | -14,394 | -15,231 | -836 | -5.8 |
| All other | -84,374 | -40,639 | -44,432 | -36,620 | -20,867 | 15,753 | 43.0 |
| Total | -390,588 | -201,051 | -252,716 | -296,708 | -256,147 | 40,561 | 13.7 |
| EU | -18,303 | -6,388 | -7,937 | -435 | -1,461 | -1,026 | -235.9 |
| OPEC | -199,716 | -95,445 | -127,208 | -159,228 | -140,855 | 18,373 | 11.5 |
| Latin America | -92,459 | -49,591 | -52,637 | -61,337 | -40,644 | 20,694 | 33.7 |
| Asia | 1,923 | 3,923 | 5,015 | 7,955 | 8,355 | 401 | 5.0 |
| Sub-Saharan Africa | -70,188 | -36,508 | -49,773 | -56,857 | -34,360 | 22,497 | 39.6 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

[a]Less than $500,000.

**FIGURE EP.1** U.S. exports of petroleum products increased in 2011 and 2012




*Source:* Derived from official statistics of the U.S. Department of Energy.

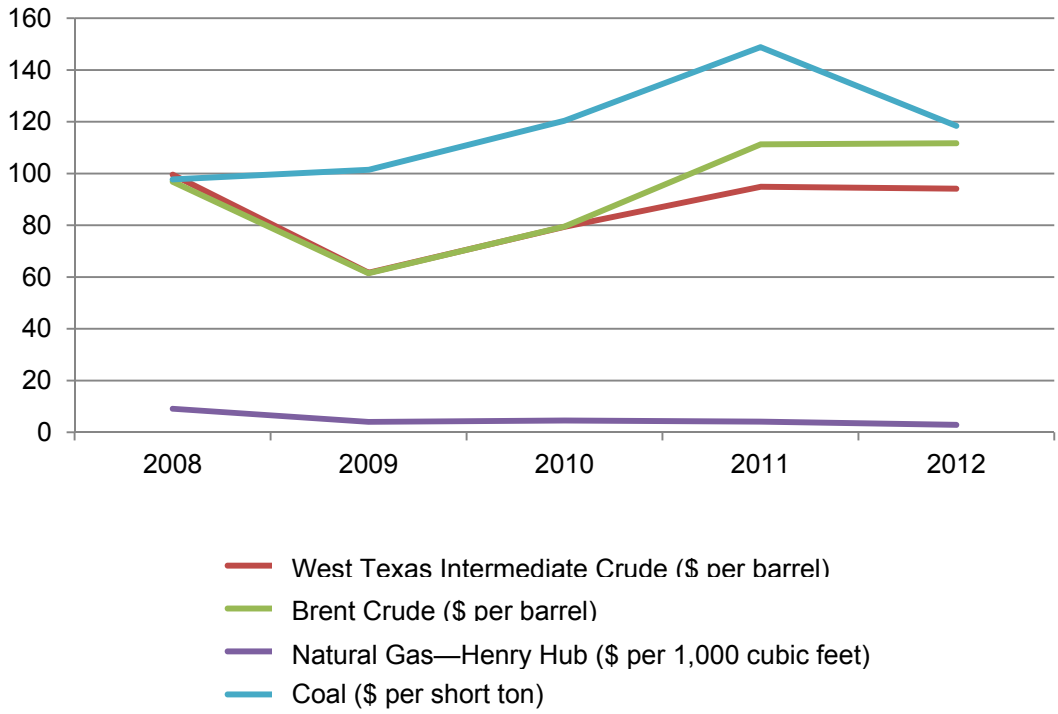
**TABLE EP.2 Energy-related products: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | *Million dollars* | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Petroleum products (EP005) | 58,765 | 42,048 | 61,131 | 100,425 | 111,355 | 10,930 | 10.9 |
| Crude petroleum (EP004) | 2,296 | 1,620 | 1,384 | 1,460 | 2,184 | 724 | 49.6 |
| **Decreases** | | | | | | | |
| Coal, coke, and related chemical products (EP003) | 10,255 | 8,079 | 12,612 | 19,471 | 17,779 | -1,691 | -8.7 |
| Natural gas and components (EP006) | 6,893 | 5,270 | 7,805 | 10,394 | 9,225 | -1,169 | -11.2 |
| Nuclear materials (EP002) | 2,141 | 2,235 | 1,886 | 1,948 | 1,518 | -429 | -22.0 |
| Electrical energy (EP001) | 1,386 | 575 | 648 | 391 | 233 | -158 | -40.5 |
| **All other** | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Total | 81,737 | 59,827 | 85,468 | 134,088 | 142,294 | 8,206 | 6.1 |
| **U.S. IMPORTS** | | | | | | | |
| **Decreases** | | | | | | | |
| Crude petroleum (EP004) | 274,950 | 150,809 | 196,862 | 246,894 | 228,944 | -17,950 | -7.3 |
| Natural gas and components (EP006) | 52,757 | 26,840 | 31,001 | 34,616 | 28,193 | -6,423 | -18.6 |
| Petroleum products (EP005) | 126,441 | 72,581 | 97,889 | 135,170 | 129,773 | -5,397 | -4.0 |
| Coal, coke, and related chemical products (EP003) | 9,102 | 4,123 | 5,335 | 7,076 | 5,447 | -1,629 | -23.0 |
| Nuclear materials (EP002) | 5,435 | 4,454 | 5,025 | 4,943 | 4,171 | -773 | -15.6 |
| Electrical energy (EP001) | 3,641 | 2,071 | 2,071 | 2,096 | 1,914 | -182 | -8.7 |
| **All other** | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Total | 472,325 | 260,878 | 338,184 | 430,796 | 398,441 | -32,355 | -7.5 |

*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.

**FIGURE EP.2** Trends in energy prices




*Source:* Derived from official statistics of the U.S. Department of Energy.

Crude petroleum is the primary energy product in this sector, accounting for 43 percent of total U.S. trade in energy-related products in 2012, and for 57 percent of imports of these products. The trade deficit in crude petroleum decreased in 2012 (by 8 percent) for the first time since 2009, due to falling U.S. imports. Nevertheless, the United States remained a significant importer of crude petroleum, accounting for about 23 percent of global crude petroleum imports.[3]

## *U.S. Exports*

U.S. exports of energy-related products increased by 6 percent to $142.3 billion in 2012. Mexico, followed by Canada, remained the primary markets for U.S. exports. However, the largest export shifts in 2012 were with South America, where the United States saw impressive growth in shipments to Venezuela, Colombia, and Brazil. The leading energy-related products exported from the United States in 2012 were petroleum

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

products and coal, along with relatively small quantities of natural gas and crude petroleum.[4]

**Petroleum Products**

The value of U.S. imports of petroleum products exceeded the value of exports because of the product mix and price. Beginning in late 2011 and continuing into 2012, the United States, for the first time in over 60 years, exported a larger volume of petroleum products than it imported; exports rose by about 7 percent to 1.1 billion barrels in 2012. Most of the increase in the quantity of U.S. exports of petroleum products is attributed to three factors: reduced domestic fuel demand, due in part to a lagging economy and more fuel-efficient cars; increased U.S. production of crude petroleum, particularly owing to U.S. refiners' increased supplies of crude petroleum from North Dakota's Bakken formation; and high demand for distillate fuel oils on the world market.

U.S. exports to Venezuela increased in quantity and value after a massive explosion occurred in September 2012 at the Paraguaná refinery, Venezuela's largest.[5] As a result, U.S. exports of motor fuels, distillate fuel oils, and specialty naphthas doubled in quantity.[6] 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, and Latin America, to supplement decreased production in Brazil after several refineries there had still not reached full capacity after a 2010–11 shutdown.[7]

**Coal, Coke, and Other Carbonaceous Materials**

In 2012, U.S. exports of coal, coke, and other related products decreased in value by 9 percent to $17.8 billion. However, the quantity of exports increased by 17 percent to 125.7 million short tons in 2012 due to growing foreign consumption of U.S. coking coals (used for steel making), which are considered to be among the highest quality bituminous coals available.

**Natural Gas**

The quantity of U.S. natural gas exports increased by 7 percent to 1.6 trillion cubic feet in 2012; 98 percent of these exports were pipeline natural gas. However, due to lower prices, the value of U.S. natural gas exports—pipeline gas and liquefied natural gas

[4] 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.

[5] *Oil and Gas Journal*, "Refining Report," March 7, 2011, and April 15, 2013.

[6] *Oil and Gas Journal*, "Refining Report," April 15, 2013.

[7] Refineries do not produce only one product from a barrel of crude petroleum; they produce a variety of products such as gasoline, diesel and bunker fuels, and heating oils. Ultimately, there is a market for all of these products, whether domestic or foreign. Petroleum products are traded globally, and the United States has a long history of exporting certain petroleum products and importing others to balance refinery output and global demand. *Oil and Gas Journal*, "Refining Report," March 7, 2011, and April 15, 2013.

(LNG)—actually decreased, from $10.4 billion in 2011 to $9.2 billion in 2012. The United States' North American Free Trade Agreement (NAFTA) partners remain the primary U.S. export markets, as most U.S. trade in natural gas is via pipelines shared with Canada and, to a lesser extent, Mexico; trade fluctuates from year to year based on market size along the pipeline.

The volume of U.S. exports of LNG decreased by 60 percent to 28.3 billion cubic feet in 2012, primarily as a result of increased consumption of natural gas in the United States and decreased exports to Japan and the Republic of Korea (Korea). U.S. exports of LNG to Japan fell from 18 trillion cubic feet in 2011 to 14 trillion cubic feet in 2012. The decline occurred primarily because Japanese power plants that use natural gas as their fuel source were still operating well below capacity, due to damage from the March 2011 Tohoku earthquake and tsunami. Korea stopped importing U.S. LNG in 2012 as a result of high spot market prices ranging from $15 to $18 per thousand cubic feet; instead, it increased purchases under multiyear contracts from Oman, Indonesia, and Qatar.[8]

## *U.S. Imports*

In 2012, U.S. imports of energy-related products decreased by 8 percent to $398.4 billion, as both the quantities and price of imports declined. Canada remained the leading source of U.S. imports of energy-related products, with Saudi Arabia, Mexico, Russia, Venezuela, and Nigeria being the other major U.S. import suppliers. However, there were significant shifts in importance among the suppliers; in particular, imports of crude petroleum from Nigeria saw very large declines, while those from Saudi Arabia saw significant growth. Crude petroleum continued to be the primary energy product imported in 2012, accounting for 58 percent of the total value of sector imports; petroleum products accounted for 32 percent, and natural gas for 7 percent.

### Crude Petroleum

The United States is the world's largest net importer of crude petroleum. The value of U.S. imports of crude petroleum declined by 7 percent to $298.9 billion in 2012, and the quantity declined by 5 percent to 3.1 billion barrels, as U.S. consumption fell by about 5 percent due to increased domestic production and a decline in domestic demand. U.S. production rose by 15 percent to 2.4 billion barrels, the largest production increase since 1990.

Canada has been the primary U.S. import source of crude petroleum for decades and continued to be so in 2012, accounting for 30 percent of the total value and 28 percent of the total volume of crude petroleum 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.-Canada border makes it easy to transport crude petroleum from the wellhead to refineries. U.S. imports of crude petroleum from Canada increased by 8 percent to 881 million barrels (or by $5 billion to $69 billion) in 2012.

[8] DOE, "Monthly Energy Review," 2012 issues.

Imports of crude petroleum from other sources declined in 2012. U.S. imports of crude petroleum from Mexico fell from 402.0 million barrels in 2011 to 355.7 million barrels in 2012. OPEC members together accounted for another 47 percent of the total quantity (39 percent of the value) of crude petroleum imported; U.S. imports from OPEC declined by 5 percent in quantity to 1.5 billion barrels in 2012. Saudi Arabia, Venezuela, Iraq, and Nigeria were the principal OPEC sources of U.S. crude petroleum imports. The decreases in imports of crude are due to increased U.S. production and lower domestic demand.

**Petroleum Products**

The value of U.S. petroleum product imports slid by 4 percent in 2012, while the quantity fell from 937.4 million barrels in 2011 to 770.4 million barrels in 2012. This decrease was due primarily to a 2.9 percent reduction in demand for gasoline, as average prices at the pump rose from $3.35 per gallon in 2011 to $3.52 per gallon.[9] Additionally, U.S. refineries, which generally satisfy over 90 percent of domestic consumption, increased their capacity utilization rates in 2012,[10] further reducing demand for imports.

U.S. imports of petroleum products from most suppliers decreased in quantity in 2012. Although Canada remained the primary source of U.S. imports of petroleum products, imports from Canada declined by 5 percent to 200 million barrels.[11] Imports from most other sources also decreased in quantity: those from Mexico, by 42 percent (from 38.2 million barrels in 2011 to 21.6 million barrels in 2012); from OPEC, by 32 percent (from 126.5 million barrels in 2011 to 86.8 million barrels in 2012). Among OPEC countries, imports from Venezuela were hit particularly hard, falling by 50 percent. These declines are attributed to a rise in U.S. production, lower U.S. demand for these products, and the massive gas explosion that occurred at the Paraguaná refinery, which resulted in its total closure.[12] Declining imports in 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 of petroleum products.

**Natural Gas**

The value of U.S. imports of natural gas decreased 19 percent to $28.2 billion in 2012, while the volume of imports fell by 9 percent 3.1 trillion cubic feet. These declines were due to a 10 percent increase in U.S. production, coupled with a 30 percent drop in natural gas prices. About 95 percent of U.S. imports of natural gas are via pipelines; the rest is imported as LNG. Canada remains the primary U.S. supplier, accounting for 99 percent of pipeline natural gas imports, which decreased by 3 percent to 3.0 trillion cubic feet in 2012. Trade between the United States and Canada fluctuates regularly, based on changes in market supply and demand along the pipeline.

The quantity of U.S. imports of LNG also declined in 2012, falling by 50 percent to 175 million cubic feet, largely due to reduced imports of LNG from Trinidad. The country

[9] DOE, *Short-Term Energy Outlook*, 2013.
[10] Ibid.
[11] U.S. imports of refined petroleum products from Canada are mostly distillate and residual fuel oils and gasoline (including stocks for blending motor fuel).
[12] *Oil and Gas Journal*, "Refining Report," April 15, 2013.

continued to reduce production at some locations because the price of its LNG was more than double the price for gas imported from Canada or domestically produced. Also, Trinidad embarked on an effort to diversify export markets for LNG, entering into long-term contracts with certain Latin American and Caribbean countries.[13]

[13] *Oil and Gas Journal*, "Trinidad and Tobago Energy Minister," October 29, 2012.

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# Forest Products

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## *Change in 2012 from 2011:*

**U.S. trade surplus: Decreased by $1.8 billion (60 percent) to $1.2 billion**
**U.S. exports: Decreased by $965 million (2.5 percent) to $38.3 billion**
**U.S. imports: Increased by $845 million (2.3 percent) to $37.1 billion**

For the third consecutive year, the United States experienced a trade surplus in forest products in 2012, although the surplus declined from 2011. Over the past five years, the trade balance in forest products has trended from a deficit of $6.9 billion in 2008 to a surplus of over $3.0 billion in 2011, with the surplus then declining to $1.2 billion in 2012 (table FP.1). Generally, increases in imports during 2012 mirrored the slow but steady recovery in U.S. housing construction, while overall decreases in exports reflected slower growth in China and Europe.

While trade with NAFTA partners Mexico and Canada represented about 40 percent of U.S. forest products exports and 48 percent of U.S. forest products imports, trade with China shifted the most in 2012. China is the second-largest U.S. export market for forest products behind Canada; it accounts for 16 percent of the total. China is also the United States' second-largest source of forest products imports, accounting for 22 percent of the total, also behind Canada. U.S. forest products exports to China declined by 8 percent ($514 million) in 2012, while U.S. imports from China increased by 10 percent ($747 million). Less robust growth in the Chinese economy in 2012 was the chief reason for the decline in U.S. exports. Other market factors also played a role, including increases in the Chinese paper recovery rate (affecting its imports of recovered paper)[1] and the availability of more competitive softwood lumber supplies from other countries. Conversely, notable increases in U.S. imports of wood panels from China, as the U.S. economy gradually recovered, contributed to a widening of the U.S. trade deficit with that country.

The trade surplus in forest products masks some variability in trade by commodity and trading partner. A strong export market for U.S. hardwood lumber in Asia (notably in China, Vietnam, and Japan) was not enough to offset higher U.S. imports of softwood lumber from Canada, spurred by an improvement in U.S. housing construction.

## *U.S. Exports*

The total value of U.S. forest products exports in 2012 declined by $965 million, or 2 percent. The largest absolute trade shift among forest products exports occurred in exports of wood pulp and recovered paper, which fell by $810 million (8 percent), primarily due to decreased demand in China (table FP.2). Chinese paper production expanded at a slower

[1] Industry representative, interview by USITC staff, Washington, DC, April 17, 2012.

**TABLE FP.1 Forest and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 10,557 | 9,142 | 10,150 | 10,249 | 10,236 | -13 | -0.1 |
| China | 3,518 | 3,720 | 5,050 | 6,722 | 6,208 | -514 | -7.6 |
| Mexico | 4,837 | 4,162 | 4,891 | 5,067 | 5,239 | 171 | 3.4 |
| Japan | 2,019 | 1,712 | 1,992 | 2,209 | 2,156 | -53 | -2.4 |
| Brazil | 409 | 359 | 445 | 481 | 418 | -63 | -13.2 |
| United Kingdom | 1,393 | 1,117 | 1,214 | 1,277 | 1,453 | 176 | 13.8 |
| Germany | 988 | 762 | 846 | 794 | 782 | -12 | -1.5 |
| Korea | 863 | 765 | 938 | 962 | 845 | -117 | -12.2 |
| Italy | 945 | 727 | 921 | 928 | 762 | -165 | -17.8 |
| India | 460 | 412 | 645 | 836 | 745 | -90 | -10.8 |
| All other | 9,372 | 7,611 | 9,289 | 9,749 | 9,464 | -285 | -2.9 |
| Total | 35,362 | 30,489 | 36,381 | 39,274 | 38,309 | -965 | -2.5 |
| EU | 5,698 | 4,476 | 5,139 | 5,241 | 5,110 | -131 | -2.5 |
| OPEC | 787 | 685 | 883 | 1,009 | 918 | -91 | -9.0 |
| Latin America | 7,930 | 6,647 | 8,028 | 8,288 | 8,363 | 75 | 0.9 |
| Asia | 8,868 | 8,284 | 10,652 | 12,844 | 12,000 | -844 | -6.6 |
| Sub-Saharan Africa | 276 | 206 | 267 | 317 | 284 | -33 | -10.5 |
| U.S. imports for consumption | | | | | | | |
| Canada | 20,496 | 14,781 | 16,544 | 16,521 | 16,464 | -57 | -0.3 |
| China | 7,371 | 6,281 | 7,123 | 7,333 | 8,080 | 747 | 10.2 |
| Mexico | 1,457 | 1,201 | 1,369 | 1,490 | 1,525 | 34 | 2.3 |
| Japan | 642 | 482 | 554 | 517 | 531 | 14 | 2.6 |
| Brazil | 1,928 | 1,300 | 1,790 | 1,793 | 1,802 | 9 | 0.5 |
| United Kingdom | 700 | 478 | 518 | 545 | 552 | 6 | 1.2 |
| Germany | 1,493 | 1,055 | 1,132 | 1,146 | 1,158 | 12 | 1.0 |
| Korea | 527 | 373 | 493 | 523 | 516 | -7 | -1.4 |
| Italy | 479 | 307 | 319 | 349 | 354 | 5 | 1.6 |
| India | 145 | 117 | 148 | 160 | 158 | -2 | -1.2 |
| All other | 7,053 | 5,137 | 5,759 | 5,894 | 5,977 | 83 | 1.4 |
| Total | 42,291 | 31,511 | 35,749 | 36,271 | 37,116 | 845 | 2.3 |
| EU | 5,671 | 3,974 | 4,340 | 4,559 | 4,528 | -32 | -0.7 |
| OPEC | 77 | 68 | 80 | 77 | 78 | 2 | 2.1 |
| Latin America | 4,515 | 3,384 | 4,068 | 4,235 | 4,271 | 37 | 0.9 |
| Asia | 10,642 | 8,693 | 9,982 | 10,134 | 10,981 | 847 | 8.4 |
| Sub-Saharan Africa | 169 | 79 | 87 | 109 | 122 | 12 | 11.4 |

**TABLE FP.1 Forest and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -9,939 | -5,639 | -6,394 | -6,272 | -6,228 | 44 | 0.7 |
| China | -3,853 | -2,561 | -2,073 | -612 | -1,872 | -1,260 | -206.0 |
| Mexico | 3,380 | 2,961 | 3,522 | 3,577 | 3,714 | 137 | 3.8 |
| Japan | 1,377 | 1,230 | 1,438 | 1,692 | 1,625 | -67 | -3.9 |
| Brazil | -1,519 | -941 | -1,345 | -1,311 | -1,384 | -73 | -5.5 |
| United Kingdom | 693 | 639 | 696 | 732 | 901 | 169 | 23.2 |
| Germany | -505 | -293 | -286 | -352 | -376 | -23 | -6.7 |
| Korea | 335 | 392 | 445 | 439 | 329 | -110 | -25.0 |
| Italy | 466 | 421 | 602 | 579 | 408 | -171 | -29.5 |
| India | 316 | 295 | 498 | 676 | 588 | -88 | -13.1 |
| All other | 2,319 | 2,474 | 3,529 | 3,856 | 3,487 | -369 | -9.6 |
| Total | -6,930 | -1,022 | 632 | 3,003 | 1,193 | -1,810 | -60.3 |
| EU | 27 | 501 | 799 | 681 | 582 | -99 | -14.6 |
| OPEC | 710 | 617 | 803 | 933 | 840 | -92 | -9.9 |
| Latin America | 3,415 | 3,264 | 3,960 | 4,054 | 4,092 | 39 | 1.0 |
| Asia | -1,774 | -410 | 670 | 2,710 | 1,018 | -1,692 | -62.4 |
| Sub-Saharan Africa | 107 | 127 | 181 | 208 | 162 | -46 | -21.9 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

**TABLE FP.2 Forest and related products: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Printing and writing papers (FP013) | 1,190 | 1,105 | 1,277 | 1,336 | 1,533 | 197 | 14.7 |
| Lumber (FP002) | 1,889 | 1,593 | 2,256 | 2,607 | 2,681 | 74 | 2.9 |
| **Decreases** | | | | | | | |
| Wood pulp and recovered paper (FP009) | 7,809 | 6,751 | 8,788 | 9,816 | 9,006 | -810 | -8.2 |
| Paperboard (FP011A) | 5,889 | 5,065 | 6,055 | 6,739 | 6,346 | -393 | -5.8 |
| **All other** | 18,584 | 15,975 | 18,005 | 18,776 | 18,742 | -33 | -0.2 |
| Total | 35,362 | 30,489 | 36,381 | 39,274 | 38,309 | -965 | -2.5 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Wood veneer and wood panels (FP004) | 3,941 | 2,961 | 3,413 | 3,263 | 3,931 | 668 | 20.5 |
| Lumber (FP002) | 4,404 | 2,639 | 3,391 | 3,366 | 3,961 | 595 | 17.7 |
| Moldings, millwork, and joinery (FP003) | 3,040 | 2,125 | 2,316 | 2,229 | 2,478 | 248 | 11.1 |
| **Decreases** | | | | | | | |
| Wood pulp and recovered paper (FP009) | 4,023 | 2,449 | 3,886 | 4,043 | 3,369 | -674 | -16.7 |
| Printing and writing papers (FP013) | 5,672 | 4,285 | 4,044 | 4,024 | 3,858 | -166 | -4.1 |
| Newsprint (FP012) | 2,365 | 1,442 | 1,377 | 1,464 | 1,344 | -120 | -8.2 |
| **All other** | 18,846 | 15,609 | 17,322 | 17,882 | 18,174 | 293 | 1.6 |
| Total | 42,291 | 31,511 | 35,749 | 36,271 | 37,116 | 845 | 2.3 |

*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.

rate last year and relied on more domestic sources of raw materials and recovered paper.[2] The Chinese economy in general grew at a somewhat slower rate during 2012 (8 percent) than during 2011 (9 percent) and previous years. Accordingly, U.S. exports of wood pulp and recovered paper to China declined by over $200 million.[3] The second-largest absolute shift occurred with respect to U.S. exports of paperboard, which decreased by $393 million, or 6 percent. Paperboard is mainly used for packaging, and the decrease in exports can again be largely attributed to the weaker economies in China and the European Union (EU).

While the value of U.S. exports of coniferous (softwood) and non-coniferous (hardwood) logs declined moderately in 2012, along with exports of softwood lumber, the value of U.S. hardwood lumber exports increased by nearly 10 percent, reaching a five-year high at $1.6 billion. U.S. hardwood lumber species are increasingly favored for use in the Chinese architectural woodwork, flooring, and furniture industries, and have become particularly competitive in China against other temperate and tropical lumber varieties.[4] The Lacey Act amendments and a new EU timber regulation, both aimed at reducing trade in illegally harvested and traded wood products, are also encouraging Asian and EU hardwood buyers to use American hardwoods rather than tropical wood species deemed to pose a higher sourcing risk.[5]

U.S. forest products exports to the EU were generally lower in 2012 because of Europe's weaker economy, a stronger U.S. dollar compared to the euro, and, for paper and paperboard, excess European capacity.[6] One exception involved a significant increase in U.S. exports of wood pellets—used for fueling power plants and other energy facilities—to the EU.[7] U.S. wood pellet export capacity has been increasing rapidly, with exports valued at $207.1 million in 2012,[8] and the EU accounted for 93 percent of those exports.[9] An important reason for the expanded exports is the EU renewable energy directive aiming to achieve a 20 percent share of energy from renewable sources by 2020. This directive has stimulated demand for wood pellets, many of which are being sourced from outside of Europe.[10] Reportedly, many European energy producers are entering into long-term supply agreements with U.S. wood pellet producers.[11]

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[2] Industry representative, interview by USITC staff, Washington, DC, April 17, 2012.

[3] Of paper and paperboard recovered for reuse in the United States, approximately 41 percent was exported in 2012; over two-thirds of that amount was exported to China. USITC calculation using data on U.S. exports of HTS 4707, recovered paper and paperboard, sourced from USITC DataWeb/USDOC and end markets for recovered paper http:/paperrecycles.org/statistics.

[4] Industry representative, interview by USITC staff, Washington, DC, April 26, 2012.

[5] Industry representative, interview by USITC staff, Washington, DC, April 26, 2012; CBP, "Lacey Act," October 8, 2008.

[6] Industry representative, interview by USITC staff, Washington, DC, April 17, 2012.

[7] Beginning in 2012, wood pellets were classified using a separate HTS 6-digit classification.

[8] By 2011, U.S. wood pellet production and export capacity had increased to about 2 million metric tons, up from less than 100,000 metric tons in 2008. See UNECE and FAO, 99.

[9] There is a large discrepancy in the reported data for U.S. exports to the EU and EU's reported imports from the United States. The EU reported wood pellet imports from the United States in 2012 valued at $331 million, 60 percent more than U.S. reported exports.

[10] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009, http://europa.eu/legislation_summaries/energy/renewable_energy/en0009_en.htm (accessed May 1, 2013).

[11] For example, Bloomberg, "Enviva LP Signs," August 24, 2010.

## *U.S. Imports*

Wood pulp and recovered paper represented the largest trade shift in forest products imports, with a decrease of $674 million or 17 percent. This mirrored, to some extent, a decline in exports (8 percent) in this commodity group, suggesting that some of the shipments that previously may have been exported were redirected into the U.S. market, thus reducing demand for imports.

U.S. housing starts rose by 28 percent in 2012, to 781,000 units, prompting an increase in U.S. wood products production, import demand, and prices.[12] The total value of U.S. forest products imports increased by $845 million (2 percent) in 2012. Canada continued to be the largest source of imports, accounting for 44 percent of the total in 2012, but its share has declined over the past decade. Canada accounted for nearly one-half of U.S. forest products imports as recently as 2008. In contrast, forest products imports from China, the second-largest supplier to the United States, have been increasing in both absolute and relative terms, accounting for 22 percent of the total in 2012.

U.S. paper demand weakened in 2012, particularly for printing and writing grades that use imported hardwood pulp. U.S. trade in pulp and paper products has been gradually affected by long-term trends in consumption. Over the past decade, electronic communications have significantly lowered U.S. demand for newsprint and printing/writing papers, triggering a gradual decline in imports of these paper grades.

In contrast to imports of wood pulp, recovered paper, and many paper grades, which declined, imports of most lumber and solid wood products increased in 2012 on increased U.S. demand from the housing construction industry. The value of U.S. lumber imports in 2012 rose 18 percent, while volume increased 5 percent. Wood veneer and panels also accounted for a large increase in the value of forest products imports, with imports from China accounting for most of the $668 million, or 21 percent, growth in this commodity group. Plywood imports from China in particular rose in volume and value, with unit values rising from $501 per cubic meter in 2011 to $548 per cubic meter in 2012.[13] Plywood and flooring shipments from Indonesia, Malaysia, Vietnam, and parts of South America (i.e., Ecuador and Paraguay) also increased significantly, while imports from Brazil declined.

[12] USDOC, New Residential Construction, (accessed April 23, 2013).

[13] Refers to all imports classified in HTS 4412, which comprises softwood and hardwood plywood and related products, including engineered wood flooring; USITC DataWeb/USDOC (accessed April 15, 2013). Included in HTS 4412 is multilayered wood flooring. Imports of such flooring from China were subject to countervailing and antidumping duties beginning in 2011.

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# Machinery

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $4.1 billion (10 percent) to $43.8 billion**
**U.S. exports: Increased by $7.2 billion (6 percent) to $122.4 billion**
**U.S. imports: Increased by $11.3 billion (7 percent) to $166.2 billion**

In 2012, the U.S. merchandise trade deficit in machinery increased to $43.8 billion, as domestic imports exceeded exports by $4.1 billion (table MT.1). Higher U.S. exports of machinery were principally due to a weakening U.S. dollar in certain major markets which made U.S. farm and garden machinery more price competitive, and to U.S. competitiveness in the production of electric generating sets. The import growth within this sector reflected growth in complementary industries, including the transportation equipment sector, given that the machinery sector produces critical inputs used in various manufacturing industries.

## *U.S. Exports*

In 2012, U.S. exports of machinery rose by $7.2 billion (6 percent) to $122.4 billion, with major shifts occurring in farm and garden machinery; electric motors, generators, and related equipment; and pumps for liquids (table MT.2). By destination, Mexico, Canada, and a number of smaller export markets (particularly Australia, Venezuela, Saudi Arabia, and Russia) accounted for the largest increases in the value of U.S. exports of machinery. The largest declines in U.S. exports were to China, Japan, Germany, and Hong Kong.

The largest absolute shift in machinery exports was the $1.9 billion increase in U.S. exports of farm and garden machinery (up 17 percent to $13.1 billion). This growth was driven largely by absolute increases in exports to Canada, Australia, and Brazil. The weaker U.S. dollar relative to the currencies of these three economies in particular made U.S. exports more competitive. Rising agricultural commodity prices and strong farm income and government support programs in most foreign markets, which strengthened demand for U.S. exports of farm and garden machinery, were also a factor.[1]

The second-largest absolute shift in machinery exports involved electric motors, generators, and related equipment, which rose by $1.4 billion (18 percent) to $9.3 billion in 2012. Canada and Mexico remained the largest and second-largest markets, respectively, for U.S. exports of these goods. The increase was driven largely by higher exports of electrical generating sets (typically a steam- or gas-powered turbine combined with an electric generator) and wind turbines (a wind turbine with an electric generator).

[1] Deere & Co., "Form 10-K," December 17, 2012, 23.

**TABLE MT.1 Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| China | 6,628 | 5,424 | 7,903 | 8,946 | 8,539 | -407 | -4.5 |
| Mexico | 12,532 | 10,442 | 11,655 | 13,450 | 15,508 | 2,058 | 15.3 |
| Canada | 21,092 | 17,437 | 20,324 | 23,025 | 24,938 | 1,913 | 8.3 |
| Japan | 4,214 | 2,588 | 2,992 | 3,467 | 3,068 | -399 | -11.5 |
| Germany | 4,263 | 2,869 | 3,734 | 4,213 | 4,029 | -184 | -4.4 |
| Korea | 4,145 | 3,454 | 5,659 | 5,499 | 5,632 | 133 | 2.4 |
| Taiwan | 3,798 | 3,276 | 5,856 | 4,529 | 4,602 | 73 | 1.6 |
| Italy | 1,170 | 918 | 977 | 1,066 | 1,012 | -54 | -5.1 |
| United Kingdom | 3,301 | 2,426 | 2,756 | 2,893 | 2,971 | 77 | 2.7 |
| Brazil | 2,662 | 2,144 | 3,061 | 3,516 | 3,794 | 278 | 7.9 |
| All other | 42,991 | 34,448 | 39,462 | 44,589 | 48,311 | 3,722 | 8.3 |
| Total | 106,796 | 85,427 | 104,379 | 115,193 | 122,404 | 7,211 | 6.3 |
| EU | 18,609 | 13,544 | 15,522 | 17,228 | 16,921 | -307 | -1.8 |
| OPEC | 7,670 | 6,487 | 7,055 | 7,224 | 8,869 | 1,645 | 22.8 |
| Latin America | 23,731 | 19,467 | 23,545 | 26,475 | 29,814 | 3,339 | 12.6 |
| Asia | 27,622 | 22,218 | 31,970 | 32,827 | 32,444 | -383 | -1.2 |
| Sub-Saharan Africa | 1,791 | 1,834 | 1,990 | 2,108 | 2,396 | 287 | 13.6 |
| U.S. imports for consumption | | | | | | | |
| China | 29,923 | 25,995 | 32,326 | 36,534 | 40,730 | 4,197 | 11.5 |
| Mexico | 20,028 | 16,584 | 20,548 | 23,144 | 25,280 | 2,136 | 9.2 |
| Canada | 13,613 | 10,352 | 10,899 | 12,511 | 13,350 | 839 | 6.7 |
| Japan | 17,053 | 11,633 | 15,202 | 19,014 | 20,461 | 1,447 | 7.6 |
| Germany | 16,086 | 11,063 | 12,286 | 15,302 | 15,767 | 465 | 3.0 |
| Korea | 4,835 | 4,786 | 5,675 | 6,379 | 6,824 | 445 | 7.0 |
| Taiwan | 3,382 | 2,324 | 2,810 | 3,487 | 3,908 | 421 | 12.1 |
| Italy | 5,832 | 4,492 | 4,369 | 5,872 | 6,045 | 173 | 2.9 |
| United Kingdom | 3,929 | 2,818 | 2,953 | 3,651 | 3,877 | 226 | 6.2 |
| Brazil | 1,387 | 969 | 1,062 | 1,231 | 1,279 | 48 | 3.9 |
| All other | 26,030 | 19,045 | 22,339 | 27,823 | 28,715 | 892 | 3.2 |
| Total | 142,096 | 110,061 | 130,469 | 154,948 | 166,237 | 11,288 | 7.3 |
| EU | 41,416 | 29,322 | 31,780 | 40,218 | 41,144 | 926 | 2.3 |
| OPEC | 122 | 73 | 95 | 120 | 146 | 26 | 21.7 |
| Latin America | 21,908 | 17,885 | 21,966 | 24,913 | 27,145 | 2,232 | 9.0 |
| Asia | 60,361 | 48,807 | 61,488 | 72,020 | 79,232 | 7,212 | 10.0 |
| Sub-Saharan Africa | 359 | 226 | 319 | 362 | 361 | -1 | -0.4 |

**TABLE MT.1 Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| China | -23,294 | -20,571 | -24,423 | -27,588 | -32,191 | -4,604 | -16.7 |
| Mexico | -7,496 | -6,142 | -8,893 | -9,695 | -9,773 | -78 | -0.8 |
| Canada | 7,479 | 7,085 | 9,425 | 10,514 | 11,588 | 1,074 | 10.2 |
| Japan | -12,839 | -9,045 | -12,209 | -15,546 | -17,393 | -1,846 | -11.9 |
| Germany | -11,823 | -8,193 | -8,552 | -11,089 | -11,738 | -649 | -5.9 |
| Korea | -690 | -1,331 | -17 | -880 | -1,192 | -312 | -35.5 |
| Taiwan | 415 | 952 | 3,045 | 1,042 | 694 | -348 | -33.4 |
| Italy | -4,662 | -3,574 | -3,392 | -4,806 | -5,033 | -227 | -4.7 |
| United Kingdom | -628 | -392 | -198 | -757 | -906 | -149 | -19.6 |
| Brazil | 1,275 | 1,174 | 1,999 | 2,285 | 2,516 | 231 | 10.1 |
| All other | 16,961 | 15,403 | 17,124 | 16,766 | 19,595 | 2,830 | 16.9 |
| Total | -35,300 | -24,634 | -26,090 | -39,755 | -43,833 | -4,078 | -10.3 |
| EU | -22,807 | -15,778 | -16,258 | -22,991 | -24,224 | -1,233 | -5.4 |
| OPEC | 7,549 | 6,414 | 6,959 | 7,104 | 8,724 | 1,619 | 22.8 |
| Latin America | 1,822 | 1,581 | 1,578 | 1,562 | 2,668 | 1,107 | 70.9 |
| Asia | -32,738 | -26,589 | -29,518 | -39,193 | -46,787 | -7,595 | -19.4 |
| Sub-Saharan Africa | 1,432 | 1,608 | 1,671 | 1,746 | 2,035 | 289 | 16.5 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

**TABLE MT.2 Machinery: Leading changes in U.S. exports and imports, 2008–12**

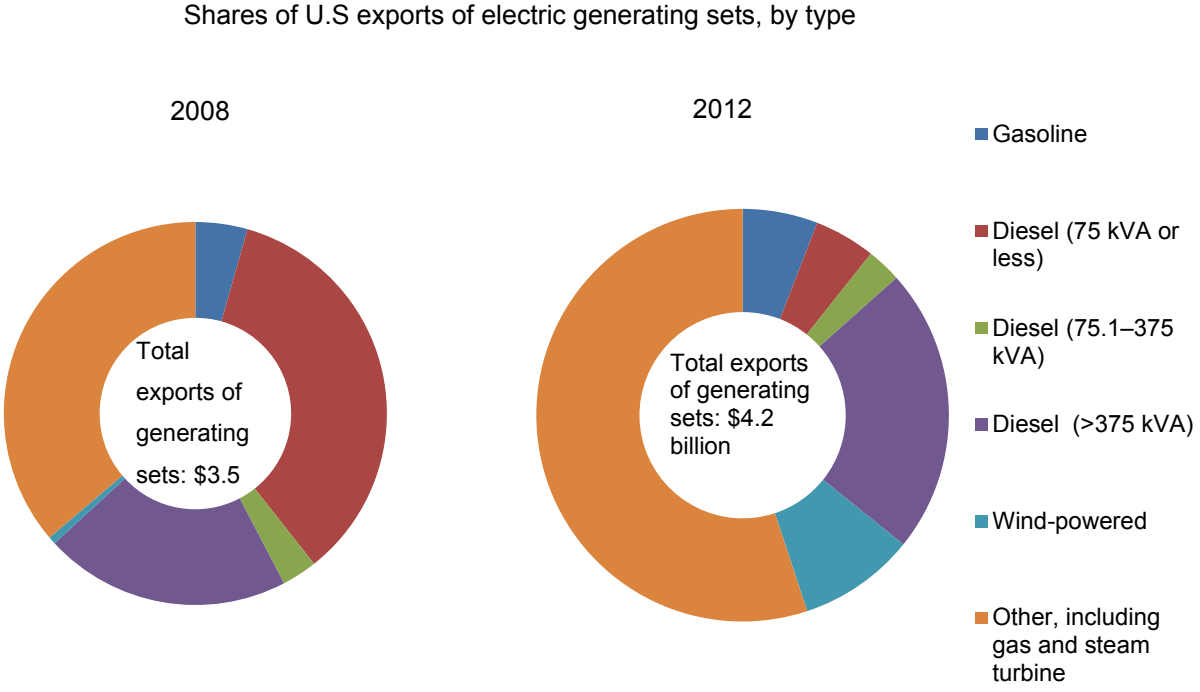
| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Farm and garden machinery and equipment (MT009) | 10,454 | 7,667 | 8,653 | 11,234 | 13,147 | 1,912 | 17.0 |
| Electric motors, generators, and related equipment (MT023) | 8,128 | 6,743 | 7,584 | 7,897 | 9,321 | 1,424 | 18.0 |
| Pumps for liquids (MT001) | 4,937 | 4,238 | 5,073 | 6,189 | 7,085 | 896 | 14.5 |
| **Decreases** | | | | | | | |
| Semiconductor manufacturing equipment and robotics (MT019) | 12,022 | 8,414 | 16,533 | 14,694 | 13,570 | -1,124 | -7.6 |
| **All other** | 71,255 | 58,366 | 66,535 | 75,180 | 79,281 | 4,101 | 5.5 |
| Total | 106,796 | 85,427 | 104,379 | 115,193 | 122,404 | 7,211 | 6.3 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Metal cutting machine tools (MT015) | 4,654 | 2,173 | 2,529 | 4,509 | 5,822 | 1,313 | 29.1 |
| Taps, cocks, valves, and similar devices (MT020) | 9,760 | 7,542 | 9,661 | 11,667 | 12,977 | 1,311 | 11.2 |
| Air-conditioning equipment and parts (MT002) | 10,859 | 8,576 | 10,695 | 12,810 | 14,045 | 1,235 | 9.6 |
| Electric motors, generators, and related equipment (MT023) | 12,888 | 10,075 | 10,338 | 12,055 | 13,189 | 1,134 | 9.4 |
| Farm and garden machinery and equipment (MT009) | 6,932 | 4,977 | 5,887 | 7,069 | 8,191 | 1,122 | 15.9 |
| **Decreases** | | | | | | | |
| Semiconductor manufacturing equipment and robotics (MT019) | 7,851 | 5,914 | 9,335 | 13,791 | 12,711 | -1,080 | -7.8 |
| **All other** | 89,151 | 70,804 | 82,025 | 93,047 | 99,302 | 6,255 | 6.7 |
| Total | 142,096 | 110,061 | 130,469 | 154,948 | 166,237 | 11,288 | 7.3 |

*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.

Electric generating sets accounted for $660 million in U.S. exports of electric motors, generators, and related equipment in 2012—almost half of the increase in this category—with Venezuela, Australia, and Russia being the leading U.S. markets for these products. These electric generating sets are typically used in the oil, gas, or mining industries, or in mobile or backup electric power generation applications. The United States has a globally competitive electric generator set industry. Wind turbines accounted for $261 million of the increase in exports of electric motors, generators, and related equipment, and was the second leading export product. Exports of wind turbines went principally to Mexico to equip new wind farms.

**FIGURE MT.1** U.S. exports of generating sets have shifted toward wind, gas, and steam turbine-powered sets




*Source:* USITC DataWeb/USDOC (accessed May 21, 2013).

U.S. exports of pumps for liquids increased by $896 million (15 percent) to $7.1 billion. The leading type of pump exported was centrifugal pumps, which accounted for almost one-third of exports. Such pumps are used in industrial, chemical/petroleum, water handling, greenhouse, hygienic, and marine applications. The major markets for these products were for power and energy and industrial end markets in North and South America and for food and beverage and industrial end markets in the Asia/Pacific region.[2] Some of these sales were for the aftermarket in the Americas, the Middle East, and the Asia/Pacific region, but sales of aftermarket pumps to Europe were weak because of the soft European economy.[3] Exports of pumps to Canada, the largest market for U.S. exports of these products, rose by $237 million to

[2] SPX Corp., "Form 10-K," February 22, 2013, 28.
[3] Flowserve Corporation, "Form 10-K," February 22, 2013, 33, 35.

$1.9 billion. Mexico was the second-largest market, and U.S. exports to Mexico rose by $106 million to $681 million.

The gains in U.S. machinery exports in 2012 were offset by a decline in U.S. exports of semiconductor manufacturing equipment, which fell by $1.1 billion (8 percent) to $13.6 billion. Semiconductor manufacturing equipment markets in all regions—except Taiwan and Korea—were significantly weaker in 2012, as reflected in reduced U.S. exports to China, Japan, and other large markets during that year.[4] The decline in these markets was due to weaker unit demand for semiconductors that led producers in these countries to curtail their capital expenditure plans, as well as a lack of new large projects in progress in 2012.[5] Nevertheless, U.S. exports to Taiwan and Korea increased due to continued investments in semiconductor fabrication plant expansions and equipment upgrades used to produce the next generation of semiconductors.[6]

## *U.S. Imports*

U.S. imports of machinery increased by $11.3 billion (7 percent) to $166.2 billion in 2012. Imports of machinery from virtually all suppliers increased, with China and Mexico representing the largest sources of U.S. imports within this sector.

The largest increase in U.S. machinery imports occurred in metal-cutting machine tools, which rose by $1.3 billion (29 percent) to $5.8 billion in 2012. The increase in imports of metal-cutting machine tools was likely due to demand from motor vehicle, aerospace, medical, and general machinery manufacturers, which were upgrading plants as they experienced strong demand for their products. Imports from Japan led the shift in this sector, increasing by $426 million to $2.3 billion, followed by imports from Germany, which rose by $252 million to $969 million. Imports from Taiwan rose by $173 million to $525 million. Notably, imports from Korea rose by $175 million (58 percent) to $475 million and likely benefited from the elimination of U.S. tariffs on these products (which ranged from 3 to 4 percent ad valorem) under the U.S.-Korea free trade agreement in 2012.

The second-largest increase in imports was of taps, cocks, valves, and similar devices, which rose by $1.3 billion (11 percent) to $13 billion. The leading import products responsible for this shift were other valves (including solenoid valves, of which motor vehicle fuel injectors are a subset), parts for valves, and check (nonreturn) valves. Sophisticated fuel injectors for automobiles and heavy-duty engines are increasingly being imported. Leading sources were China, Mexico, and Japan, all of which registered import increases in this commodity group in 2012.

U.S. imports of air-conditioning equipment and parts increased in absolute terms by $1.2 billion (10 percent) as imports of these articles from China rose by $555 million and from Mexico by $364 million. Warm temperatures in the spring and summer of 2012 increased demand for both air-conditioning equipment and imported parts used in the production of such equipment. Shipments into the United States of central air

[4] SEMI, "SEMI Reports 2012 Global Semiconductor Equipment Sales," March 12, 2013.

[5] Chamness, "2012: A Year in Review," April 9, 2013.

[6] Chamness, "2012: A Year in Review," April 9, 2013; Taiwan Semiconductor Manufacturing Co., Ltd., *Form F-20*, 29. Samsung Electronics Co., Ltd., "Samsung Electronics Announces Fourth Quarter and FY 2010 Results," January 28, 2013.

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conditioners and air-source heat pumps rose by almost 5 percent in 2012, rising from 3.7 million units to 3.9 million units.[7] Increased imports from China principally consisted of window air-conditioning equipment, ceiling and other fans, compressors and parts, motor vehicle air-conditioning machines, other parts of air-conditioning machines, and other air-conditioning machines. Increased imports from Mexico primarily comprised parts of air-conditioning machines, particularly for motor vehicles, for motor vehicle turbochargers and superchargers, and for other air-conditioning machines.

Other significant increases in U.S. imports of machinery occurred in electric motors, generators, and related equipment; farm and garden machinery; and household appliances, including commercial appliances. The increase in U.S. imports of machinery was offset by declining imports of semiconductor manufacturing equipment, which fell by $1.1 billion to $13.1 billion. Imports of such equipment from Japan fell by $613 million and from the Netherlands by $526 billion. The decline likely was related to the completion of major semiconductor equipment upgrades in 2012 at semiconductor plants of Intel and Samsung Austin Semiconductor, as well as the global downturn in semiconductor production in 2012.[8]

[7] AHRI, "AHRI Releases December 2012," February 19, 2013.

[8] Intel, "Intel Announces Multi-Billion-Dollar Investment," October 19, 2010; Ladendorf, "Samsung Says Austin Manufacturing Expansion Running," December 5, 2011.

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Taiwan Semiconductor Manufacturing Co., Ltd., "Form 20-F," n.d. http://www.tsmc.com/download/ir/secFillings/20F-2012.pdf (accessed May 10, 2013).

# Minerals and Metals

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $2.1 billion (4 percent) to $54.2 billion**
**U.S. exports: Decreased by $0.1 billion (-0.1 percent) to $140.5 billion**
**U.S. imports: Increased by $2.2 billion (1.1 percent) to $194.7 billion**

In 2012, U.S. imports of minerals and metals increased slightly over 2011 levels, while exports were largely flat, resulting in a $2.1 billion widening of the deficit in this commodity group (table MM.1). This was in contrast to the previous year, when exports increased by 27 percent and imports by 23 percent over 2010 levels. The very slight decline in exports principally reflected higher prices in key commodities, such as gold, as opposed to global demand shifts. Heightened U.S. imports partly resulted from increased gold prices as well, but also reflected a need to support U.S. domestic oil and gas production and motor vehicle manufacturing; imports from this sector are critical inputs to these industries.

## *U.S. Exports*

The slight decline in U.S. exports of minerals and metals was driven by lower exports of gold bullion (gold of a certain recognized purity level) and a sharp drop in exports of gold and silver scrap in 2012. Gold bullion exports fell by 8 percent to $19.3 billion. The United Kingdom, Hong Kong, and Switzerland are regional centers for trading refined gold and were the destinations for 86 percent of U.S. exports of gold bullion. Exports of gold scrap declined by 72 percent to $2.3 billion, while exports of silver scrap fell by 40 percent to $2.1 billion in 2012. The decline in U.S. exports of gold scrap reflects both a quantity decrease of 397 metric tons (60 percent) and a unit-value decrease, due to a lower gold content in the scrap exported during 2012. Gold scrap inventories were drawn down in 2011 as a result of high U.S. secondary refinery output. The 2011 drawdown reduced the availability of gold scrap in 2012, depressing U.S. secondary refinery output and decreasing exports. Canada was the largest destination for U.S. exports of gold waste and scrap in 2012, accounting for 55 percent of exports or $1.3 billion.

Export reductions of iron and steel scrap, which fell by $1.9 billion (17 percent) (table MM.2), also contributed to overall export declines within the minerals and metals sector. Turkey remained the largest destination for U.S. exports of iron and steel scrap in 2012, while there was a drop in U.S. exports to several other leading markets, including China, Taiwan, and the Republic of Korea (Korea). Overall, the drop in exports of iron and steel scrap may be attributed to robust demand for scrap in the United States, as steel

**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, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 27,816 | 18,907 | 24,978 | 28,710 | 28,691 | -19 | -0.1 |
| Mexico | 13,492 | 9,603 | 12,450 | 15,764 | 17,766 | 2,002 | 12.7 |
| China | 9,701 | 8,703 | 10,791 | 13,489 | 12,099 | -1,391 | -10.3 |
| Switzerland | 10,950 | 7,035 | 10,196 | 13,227 | 14,622 | 1,395 | 10.5 |
| United Kingdom | 9,865 | 9,311 | 9,975 | 13,048 | 11,162 | -1,887 | -14.5 |
| India | 2,868 | 2,176 | 3,159 | 2,835 | 4,645 | 1,810 | 63.8 |
| Germany | 3,635 | 2,371 | 3,710 | 4,338 | 3,903 | -435 | -10.0 |
| Japan | 3,995 | 2,043 | 3,026 | 3,670 | 3,088 | -582 | -15.9 |
| Israel | 2,516 | 737 | 700 | 1,156 | 1,903 | 747 | 64.6 |
| Korea | 3,385 | 2,658 | 3,176 | 4,170 | 3,829 | -341 | -8.2 |
| All other | 31,529 | 20,807 | 27,749 | 40,233 | 38,809 | -1,423 | -3.5 |
| Total | 119,753 | 84,351 | 109,910 | 140,640 | 140,516 | -124 | -0.1 |
| EU | 22,965 | 17,339 | 21,349 | 26,488 | 23,123 | -3,364 | -12.7 |
| OPEC | 3,275 | 2,222 | 2,172 | 3,077 | 3,670 | 593 | 19.3 |
| Latin America | 18,807 | 13,399 | 17,199 | 21,300 | 23,641 | 2,341 | 11.0 |
| Asia | 28,714 | 21,194 | 28,616 | 40,118 | 39,286 | -832 | -2.1 |
| Sub-Saharan Africa | 861 | 789 | 1,136 | 1,407 | 1,520 | 113 | 8.1 |
| U.S. imports for consumption | | | | | | | |
| Canada | 36,695 | 22,533 | 31,382 | 35,358 | 32,529 | -2,829 | -8.0 |
| Mexico | 14,715 | 12,142 | 16,236 | 21,944 | 21,997 | 53 | 0.2 |
| China | 28,975 | 19,146 | 22,208 | 25,258 | 26,890 | 1,632 | 6.5 |
| Switzerland | 1,168 | 1,102 | 1,259 | 1,667 | 1,642 | -25 | -1.5 |
| United Kingdom | 4,041 | 2,139 | 2,921 | 3,264 | 3,743 | 478 | 14.7 |
| India | 7,534 | 5,136 | 7,714 | 9,149 | 8,668 | -481 | -5.3 |
| Germany | 7,443 | 4,496 | 6,221 | 7,722 | 7,726 | 4 | 0.1 |
| Japan | 5,996 | 4,468 | 5,752 | 6,971 | 8,024 | 1,053 | 15.1 |
| Israel | 9,995 | 5,966 | 8,242 | 9,741 | 8,817 | -924 | -9.5 |
| Korea | 4,174 | 2,387 | 3,466 | 5,038 | 5,878 | 840 | 16.7 |
| All other | 64,258 | 37,512 | 50,797 | 66,437 | 68,798 | 2,361 | 3.6 |
| Total | 184,994 | 117,025 | 156,199 | 192,550 | 194,712 | 2,162 | 1.1 |
| EU | 29,376 | 18,305 | 23,514 | 28,968 | 30,086 | 1,118 | 3.9 |
| OPEC | 1,682 | 707 | 1,261 | 2,286 | 2,461 | 176 | 7.7 |
| Latin America | 31,453 | 22,469 | 29,944 | 41,802 | 44,226 | 2,424 | 5.8 |
| Asia | 55,456 | 36,410 | 46,351 | 55,319 | 59,271 | 3,952 | 7.1 |
| Sub-Saharan Africa | 7,274 | 3,813 | 5,702 | 6,519 | 5,523 | -996 | -15.3 |

**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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | -8,879 | -3,625 | -6,404 | -6,649 | -3,838 | 2,810 | 42.3 |
| Mexico | -1,223 | -2,540 | -3,786 | -6,180 | -4,230 | 1,949 | 31.5 |
| China | -19,274 | -10,443 | -11,416 | -11,769 | -14,792 | -3,022 | -25.7 |
| Switzerland | 9,783 | 5,933 | 8,937 | 11,560 | 12,980 | 1,421 | 12.3 |
| United Kingdom | 5,824 | 7,172 | 7,054 | 9,784 | 7,419 | -2,365 | -24.2 |
| India | -4,666 | -2,959 | -4,555 | -6,314 | -4,023 | 2,291 | 36.3 |
| Germany | -3,808 | -2,125 | -2,511 | -3,384 | -3,823 | -439 | -13.0 |
| Japan | -2,001 | -2,425 | -2,726 | -3,301 | -4,936 | -1,635 | -49.5 |
| Israel | -7,478 | -5,229 | -7,542 | -8,585 | -6,914 | 1,671 | 19.5 |
| Korea | -789 | 272 | -290 | -868 | -2,049 | -1,181 | -136.1 |
| All other | -32,728 | -16,705 | -23,048 | -26,204 | -29,989 | -3,785 | -14.4 |
| Total | -65,240 | -32,674 | -46,288 | -51,910 | -54,196 | -2,286 | -4.4 |
| EU | -6,410 | -966 | -2,165 | -2,480 | -6,963 | -4,483 | -180.7 |
| OPEC | 1,594 | 1,515 | 911 | 792 | 1,209 | 417 | 52.7 |
| Latin America | -12,646 | -9,070 | -12,745 | -20,502 | -20,585 | -83 | -0.4 |
| Asia | -26,743 | -15,216 | -17,735 | -15,201 | -19,986 | -4,785 | -31.5 |
| Sub-Saharan Africa | -6,412 | -3,024 | -4,565 | -5,113 | -4,003 | 1,110 | 21.7 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

**TABLE MM.2 Minerals and metals: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Unrefined and refined gold (MM020A) | 16,276 | 11,918 | 14,698 | 24,134 | 33,339 | 9,204 | 38.1 |
| Pipes and tubes of carbon and alloy steels (MM025L) | 3,604 | 2,565 | 3,042 | 3,204 | 3,895 | 691 | 21.6 |
| Unrefined and refined copper (MM036A) | 246 | 452 | 579 | 243 | 754 | 511 | 210.4 |
| **Decreases** | | | | | | | |
| Iron and steel waste and scrap (MM023) | 10,384 | 7,125 | 8,399 | 11,398 | 9,449 | -1,949 | -17.1 |
| Certain ores, concentrates, ash, and residues (MM007) | 2,073 | 768 | 1,225 | 1,609 | 1,276 | -333 | -20.7 |
| **All other** | 87,171 | 61,523 | 81,967 | 100,052 | 91,803 | -8,249 | -8.2 |
| Total | 119,753 | 84,351 | 109,910 | 140,640 | 140,516 | -124 | -0.1 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Pipes and tubes of carbon and alloy steels (MM025L) | 12,933 | 6,718 | 6,798 | 8,952 | 11,324 | 2,371 | 26.5 |
| **Decreases** | | | | | | | |
| Natural and synthetic gemstones (MM019) | 21,072 | 13,608 | 19,730 | 23,625 | 21,597 | -2,029 | -8.6 |
| Copper and related articles (MM036) | 11,153 | 6,125 | 8,609 | 11,158 | 9,735 | -1,424 | -12.8 |
| Precious metals and non-numismatic coins (MM020) | 18,750 | 16,287 | 23,701 | 33,423 | 32,257 | -1,166 | -3.5 |
| Certain base metals and chemical elements (MM041) | 7,253 | 3,822 | 6,106 | 7,563 | 6,744 | -818 | -10.8 |
| **All other** | 113,833 | 70,466 | 91,255 | 107,828 | 113,056 | 5,228 | 4.8 |
| Total | 184,994 | 117,025 | 156,199 | 192,550 | 194,712 | 2,162 | 1.1 |

*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.

production by the electric furnace method, which is the main use of such scrap, continued strong while scrap generation lagged.[1]

These reductions in U.S. exports of minerals and metals were offset by the unrefined and refined gold subgroup, exports of which grew by $9.2 billion in 2012. Gold doré (a semi-pure alloy of gold and other metals, usually silver) accounted for the largest increase among all forms of unrefined and refined gold exports. U.S. primary refinery output of gold was relatively unchanged, indicating that consumption of unrefined gold by those refineries was similarly unchanged.[2] U.S. mine output declined.[3] Accordingly, exports of gold doré increased in parallel with a drawdown of domestic inventories. This export increase was partially offset by an increase in the volume of imports of gold doré.[4] The increase was augmented by higher prices of gold in 2012, which were more than $97 per troy ounce above the previous year's average of $1,572 per troy ounce.[5] Switzerland, a global center for the refining, fabricating, and trading of gold and other precious metals, was the primary destination for U.S. exports, accounting for 80 percent of all U.S. exports of gold doré and for $8.3 billion (or 78 percent) of the U.S. export increase for gold doré in 2012. India became a significant destination for U.S. exports of gold doré for the first time, accounting for $1.6 billion in exports, compared to zero or insignificant amounts during prior years. The increase in exports of gold doré accounted for most of the overall increase in exports of minerals and metals to India.

## *U.S. Imports*

The expansion of U.S. imports of minerals and metals was primarily driven by increased imports of steel mill products, unrefined and refined gold, and miscellaneous base metal products during 2012. However, reduced imports of natural and synthetic gemstones, in particular, offset these import gains. Imports of steel mill products rose by $3.5 billion (11 percent) to $34.3 billion in 2012. Within that category, imports of steel pipes and tubes of carbon and alloy steels rose by $2.7 billion (26 percent) to $11.3 billion. These import increases were driven by robust domestic demand for steel tubular products for use in oil and gas production and transportation projects.

U.S. imports of unrefined and refined gold registered the second-largest increase, growing by $1.6 billion to $15.9 billion in 2012. Unrefined gold doré accounted for the largest absolute increase in imports (rising $3.1 billion, or 41 percent, to $10.8 billion) among all forms of unrefined and refined gold, while imports of gold scrap increased by $0.6 billion (70 percent) to $1.6 billion. The top sources of gold doré were Mexico, Colombia, Peru, and Bolivia, all of which have major precious-metal mining industries. These countries accounted for $2.1 billion (67 percent) of the increase in imports of gold doré. The increase in imports of unrefined gold partially offset the even larger increase in

[1] AISI, "Pig Iron and Raw Steel Production," December 2012.

[2] U.S. primary refinery output from mined gold was recorded at 220 metric tons in both 2011 and 2012. George, "Gold," January 2013, 66.

[3] U.S. mines' output of gold declined from 234 metric tons in 2011 to 230 metric tons in 2012. George, "Gold," January 2013, 66.

[4] Details are not readily available about inflows into and outflows from domestic inventories of gold doré held by mines, refineries, producers, consumers, or traders. Likewise, details are not readily available about contractual agreements between mines and refineries and among refineries.

[5] The average annual "London PM Fix" price for gold on the London Bullion Market was $1,669.98 per troy ounce in 2012, up from $1,571.52 per troy ounce in 2011. Compiled by the USITC from LBMA, "Historical Statistics, Gold Fixings," n.d. (accessed April 11, 2013).

U.S. exports mentioned above and was similarly augmented by higher gold prices during 2012.

U.S. imports of miscellaneous products of base metal registered the third-largest increase, as imports rose by $1.3 billion (10 percent) to $14.9 billion in 2012. Products within this subgroup include mountings, fittings, and similar articles for use in the production of motor vehicles. In 2012, the U.S. motor vehicle industry increased production to meet rising domestic and global demand, which likely translated into heightened demand for critical inputs, such as those found within the miscellaneous products of base metal subgroup. China, Mexico, and Canada were the top sources for $10.1 billion (or 68 percent) of all U.S. imports of these goods in 2012, which likely reflects each of these countries' significance as leading suppliers of automotive parts to the United States.

Increases in U.S. imports of steel mill products and unrefined and refined gold were partially offset by a $2.0 billion reduction in U.S. imports of natural and synthetic gemstones in 2012. The United States is one of the world's largest diamond markets but lacks notable diamond-bearing deposits, leaving the country highly dependent upon imports to meet domestic demand. Israel (Tel Aviv), India (Surat), and Belgium (Antwerp), all major diamond-processing locations (cutting and polishing) and trading centers, together accounted for $17.1 billion (or 87 percent) of U.S. imports of loose, worked diamonds in 2012. Such imports dropped nearly 10 percent by value in 2012, which was reportedly a "turbulent" year for the global diamond industry. During 2012, prices for 1-carat (0.2 gram) polished diamonds fell by 12.5 percent; disappointing holiday sales in the United States were attributed to economic uncertainties that dampened consumer confidence, depressing sales of diamond jewelry and other luxury goods.[6]

[6] JCK staff, "Rapaport Doesn't Foresee Diamond Price Increases," January 4, 2013.

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# Textiles and Apparel

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $119 million (0.1 percent) to $94.3 billion**
**U.S. exports: Decreased by $222 million (1 percent) to $19.2 billion**
**U.S. imports: Decreased by $103 million (0.1 percent) to $113.5 billion**

In 2012, the U.S. trade deficit in textiles and apparel rose slightly to $94.3 billion, the result of a relatively small drop in U.S. exports that outweighed the small decline in U.S. imports (table TX.1). Imports supplied most of U.S. consumer demand for textiles and apparel. While the average unit value of U.S. imports decreased slightly between 2011 and 2012, consumer spending on clothing increased by 5 percent, as a result of higher retail prices.[1] In 2012, imports in three categories—shirts and blouses; trousers; and robes, nightwear, and underwear—together accounted for the largest share (43 percent) of U.S. textile and apparel imports, decreasing by 1 percent to $49.0 billion (table TX.2). Though U.S. exports of fabric continued to lead sector exports, the slight increase of 1 percent to $6.3 billion in 2012 was outweighed by decreases in U.S. exports of other major textile products, primarily fibers and yarns.[2]

The United States continued to register a trade deficit with most of its major trading partners in this sector. Notably, the trade deficit with Honduras increased by $354 million (40 percent) to $1.2 billion in 2012. The only major exception was Canada, which is the second-largest export market for U.S.-made textile and apparel items. The United States registered a trade surplus of nearly $1.5 billion with Canada in this sector in 2012, having maintained a surplus every year during 2008–12. China supplied 40 percent of U.S. imports of textiles and apparel in 2012, remaining the largest supplier of these products.

## *U.S. Exports*

U.S. exports of textiles and apparel decreased by $222 million (1 percent) to $19.2 billion in 2012. U.S. exports in this sector are largely composed of textile articles, which represent 82 percent of all U.S. exports of textiles and apparel (table TX.2). These exports are often used as intermediate inputs for finished products manufactured abroad, which are then imported back into the United States. The top markets for U.S. textile exports are partner countries in the North American Free Trade Agreement (NAFTA) or the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR); these countries collectively accounted for 61 percent of all such exports in 2012. In addition to preferential duty treatment, these partners benefit from shorter lead times because of their

[1] Textile Outlook International, "World Textile and Apparel Trade and Production Trends," 2013, 18.
[2] USITC DataWeb/USDOC (accessed April 26, 2013).

**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, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| China | 940 | 846 | 1,083 | 1,240 | 1,243 | 3 | 0.2 |
| Mexico | 3,718 | 3,109 | 3,680 | 4,075 | 4,162 | 87 | 2.1 |
| Vietnam | 33 | 37 | 41 | 43 | 67 | 24 | 55.6 |
| India | 114 | 114 | 141 | 162 | 168 | 6 | 3.7 |
| Canada | 3,645 | 3,063 | 3,386 | 3,675 | 3,873 | 198 | 5.4 |
| Indonesia | 133 | 132 | 113 | 131 | 142 | 11 | 8.4 |
| Bangladesh | 21 | 20 | 8 | 20 | 28 | 8 | 38.2 |
| Honduras | 1,562 | 1,073 | 1,469 | 1,848 | 1,464 | -384 | -20.8 |
| Pakistan | 50 | 55 | 55 | 40 | 32 | -8 | -20.8 |
| Cambodia | 5 | 5 | 6 | 6 | 7 | (a) | 8.0 |
| All other | 7,584 | 6,199 | 7,369 | 8,192 | 8,026 | -167 | -2.0 |
| Total | 17,805 | 14,653 | 17,350 | 19,433 | 19,211 | -222 | -1.1 |
| EU | 2,121 | 1,666 | 1,980 | 2,133 | 2,070 | -63 | -2.9 |
| OPEC | 400 | 331 | 377 | 450 | 483 | 33 | 7.3 |
| Latin America | 7,997 | 6,409 | 7,769 | 9,034 | 8,600 | -433 | -4.8 |
| Asia | 2,872 | 2,517 | 3,035 | 3,327 | 3,352 | 25 | 0.8 |
| Sub-Saharan Africa | 222 | 199 | 236 | 261 | 278 | 16 | 6.2 |
| U.S. imports for consumption | | | | | | | |
| China | 36,368 | 35,083 | 42,095 | 44,798 | 44,949 | 152 | 0.3 |
| Mexico | 5,957 | 5,177 | 5,537 | 5,881 | 5,782 | -99 | -1.7 |
| Vietnam | 5,392 | 5,290 | 6,177 | 7,081 | 7,499 | 418 | 5.9 |
| India | 5,583 | 4,991 | 5,833 | 6,447 | 6,397 | -50 | -0.8 |
| Canada | 2,484 | 1,972 | 2,225 | 2,320 | 2,413 | 93 | 4.0 |
| Indonesia | 4,460 | 4,214 | 4,858 | 5,562 | 5,416 | -146 | -2.6 |
| Bangladesh | 3,566 | 3,557 | 4,104 | 4,719 | 4,639 | -81 | -1.7 |
| Honduras | 2,697 | 2,133 | 2,499 | 2,726 | 2,696 | -30 | -1.1 |
| Pakistan | 3,225 | 2,861 | 3,166 | 3,487 | 3,143 | -345 | -9.9 |
| Cambodia | 2,385 | 1,888 | 2,234 | 2,627 | 2,560 | -67 | -2.6 |
| All other | 32,210 | 23,416 | 25,472 | 27,962 | 28,013 | 51 | 0.2 |
| Total | 104,329 | 90,581 | 104,199 | 113,611 | 113,507 | -103 | -0.1 |
| EU | 5,791 | 3,972 | 4,500 | 5,243 | 5,362 | 119 | 2.3 |
| OPEC | 238 | 173 | 220 | 147 | 152 | 4 | 3.0 |
| Latin America | 15,938 | 13,321 | 14,673 | 15,996 | 15,777 | -219 | -1.4 |
| Asia | 74,516 | 66,826 | 77,998 | 84,873 | 84,703 | -170 | -0.2 |
| Sub-Saharan Africa | 1,184 | 943 | 814 | 929 | 891 | -37 | -4.0 |



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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| China | -35,429 | -34,237 | -41,013 | -43,558 | -43,707 | -149 | -0.3 |
| Mexico | -2,239 | -2,068 | -1,857 | -1,806 | -1,621 | 185 | 10.3 |
| Vietnam | -5,359 | -5,254 | -6,136 | -7,038 | -7,432 | -394 | -5.6 |
| India | -5,470 | -4,877 | -5,692 | -6,285 | -6,230 | 56 | 0.9 |
| Canada | 1,161 | 1,091 | 1,161 | 1,355 | 1,460 | 105 | 7.7 |
| Indonesia | -4,327 | -4,082 | -4,745 | -5,431 | -5,274 | 157 | 2.9 |
| Bangladesh | -3,545 | -3,537 | -4,096 | -4,699 | -4,611 | 89 | 1.9 |
| Honduras | -1,135 | -1,060 | -1,030 | -878 | -1,232 | -354 | -40.3 |
| Pakistan | -3,175 | -2,806 | -3,111 | -3,447 | -3,111 | 336 | 9.8 |
| Cambodia | -2,380 | -1,882 | -2,227 | -2,621 | -2,553 | 68 | 2.6 |
| All other | -24,626 | -17,217 | -18,103 | -19,770 | -19,987 | -217 | -1.1 |
| Total | -86,523 | -75,928 | -86,849 | -94,178 | -94,297 | -119 | -0.1 |
| EU | -3,670 | -2,307 | -2,520 | -3,110 | -3,292 | -182 | -5.9 |
| OPEC | 162 | 157 | 156 | 303 | 331 | 29 | 9.4 |
| Latin America | -7,940 | -6,912 | -6,904 | -6,962 | -7,177 | -214 | -3.1 |
| Asia | -71,644 | -64,309 | -74,963 | -81,546 | -81,351 | 195 | 0.2 |
| Sub-Saharan Africa | -961 | -744 | -577 | -667 | -614 | 54 | 8.0 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

[a]Less than $500,000.

**TABLE TX.2 Textiles and apparel: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Other fabrics (TX002F) | 1,445 | 1,248 | 1,537 | 1,676 | 1,772 | 96 | 5.7 |
| Shirts and blouses (TX005E) | 556 | 525 | 556 | 587 | 671 | 85 | 14.4 |
| **Decreases** | | | | | | | |
| Fibers and yarns, except raw cotton and raw wool (TX001) | 4,344 | 3,496 | 4,444 | 5,610 | 5,059 | -552 | -9.8 |
| **All other** | 11,459 | 9,385 | 10,813 | 11,560 | 11,709 | 149 | 1.3 |
| Total | 17,805 | 14,653 | 17,350 | 19,433 | 19,211 | -222 | -1.1 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Fabrics (TX002) | 5,891 | 4,410 | 5,444 | 6,241 | 6,587 | 347 | 5.6 |
| Women's and girls' dresses (TX005H) | 3,176 | 3,098 | 3,679 | 4,339 | 4,619 | 280 | 6.4 |
| Miscellaneous textile products (TX006) | 5,575 | 5,047 | 5,984 | 6,609 | 6,844 | 235 | 3.6 |
| **Decreases** | | | | | | | |
| Shirts and blouses (TX005E) | 24,876 | 21,962 | 24,728 | 26,728 | 26,030 | -698 | -2.6 |
| Women's and girls' suits, skirts, and coats (TX005G) | 5,851 | 4,739 | 5,121 | 5,465 | 5,125 | -340 | -6.2 |
| **All other** | 58,959 | 51,325 | 59,243 | 64,228 | 64,302 | 73 | 0.1 |
| Total | 104,329 | 90,581 | 104,199 | 113,611 | 113,507 | -103 | -0.1 |

*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.

proximity to the U.S. market. Since much of the fibers, yarns, and fabric exported to NAFTA and CAFTA-DR partner countries re-enter the United States as finished garments, demand for U.S. exports of textiles is closely correlated to U.S. imports of apparel from these countries. U.S. exports of textiles to these trading partners declined by 4 percent between 2011 and 2012, which was partly reflected in a 1.2 percent decrease in U.S. imports of apparel from these countries during the same period (see discussion of U.S. imports below).[3]

U.S. exports to its three leading export markets—Mexico, Canada, and Honduras— showed mixed results between 2011 and 2012. U.S. exports to Mexico rose by $87 million (2 percent) to $4.2 billion, and exports to Canada rose by $198 million (5 percent) to $3.9 billion. Meanwhile, U.S. exports to Honduras dropped by $384 million (21 percent) to $1.5 billion.

Exports of fibers and yarns experienced the greatest decline, of $552 million (10 percent) to $5.1 billion, while U.S. exports of fabric were largely unchanged. As these inputs are primarily used in the production of finished apparel, the decrease in U.S. exports reflects fewer shipments of inputs to apparel manufacturing facilities abroad.

## *U.S. Imports*

For the first time since 2009, U.S. imports of textiles and apparel declined, falling by a modest 0.1 percent or $103 million to $113.5 billion in 2012. Imports from China, by far the largest supplier of textiles and apparel to the United States, were mostly flat, rising just 0.3 percent to $44.9 billion. In contrast to the substantial increases in U.S. imports of textiles and apparel from China each year between 2009 and 2011, the stable level of imports in 2012 largely reflects efforts by producers to diversify their supply chains by moving some manufacturing capacity from China to other Asian producers, notably Vietnam.[4]

Compared with 2011, the value of U.S. apparel retail sales increased by nearly 6 percent in 2012.[5] This increase reflects growth of $13.4 billion in consumer expenditures on garments.[6] As U.S. imports of apparel by quantity, or square meter equivalents (SMEs), declined by 1 percent in 2012, higher sales volumes do not explain this growth. Instead, increased expenditures are likely attributable to retail inflation due to increased commodity input prices, rising wages in manufacturing countries (primarily China), and increasing freight costs.[7]

U.S. imports from Asia, the largest regional supplier—accounting for three-quarters of all sector imports—decreased by $170 million (0.2 percent) to $84.7 billion in 2012. Imports from Pakistan accounted for much of the decline, falling by 10 percent to $3.1 billion. In 2012, textile and apparel production in Pakistan experienced major setbacks as a result of natural gas and electricity shortages. Approximately 40 percent of textile factories either

[3] Rules of origin for 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 in the U.S. market.

[4] Verma, "Suppliers Developing Their Own Design Hubs," October 1, 2012; Barrie, "Apparel Supply Chain Challenges in 2012," May 1, 2012.

[5] USDOC, Census, *Monthly Retail Trade and Food Services: Clothing Stores*, March 2013, table 4481.

[6] USDOL, BEA, *Personal Consumption Expenditures*, March 2013, table 4.5.U.

[7] Standard & Poor's, "Apparel and Footwear: Retailers and Brands," October 25, 2012.

shut down or ran at reduced capacity, and thousands of workers were laid off, cutting production and exports from the country.[8] By contrast, U.S. imports from Vietnam increased by $418 million (6 percent), the only gain among the 10 largest suppliers. The United States is Vietnam's largest export market for textiles and apparel.[9]

U.S. imports from Latin America, comprising CAFTA-DR countries and Mexico, accounted for 14 percent of total sector imports in 2012 and fell by $219 million (1 percent). The decrease was primarily driven by imports from Mexico, which declined by $99 million (2 percent). Mexican safeguards against imports of textiles and apparel from China expired in December 2011, which intensified competitive pressures on the Mexican industry in 2012 [10] Regional FTAs, including CAFTA-DR, also hampered the competitiveness of the Mexican industry.[11]

Unlike U.S. exports, U.S. imports of textiles and apparel are largely composed of apparel, which represented three-quarters of all U.S. sector imports in 2012. By quantity, U.S. apparel imports were stable between 2011 and 2012, as a decrease in imports of cotton apparel was offset by a corresponding increase in imports of manmade-fiber apparel.[12] Driven by volatile cotton prices, demand by apparel manufacturers shifted away from cotton in favor of relatively cheaper manmade fibers.[13]

By value, apparel registered the largest overall change for U.S. imports—a decline of $706 million to $85.0 billion. This decline was driven by decreases in imports of shirts and blouses; women's and girls' suits, skirts, and coats; other wearing apparel; and men's and boys' coats and jackets. Within these subcategories, U.S. imports of shirts and blouses experienced the largest decline, falling nearly $700 million to $26.0 billion (3 percent).

[8] Thomasson, "Pakistan Faces Challenges," September 2012.

[9] Deschamps, "Sourcing Winners and Losers," December 14, 2012.

[10] Protective duties were eliminated on 112 apparel items, 14 textiles items, and a range of footwear products. USDA, FAS, "Mexico: Cotton and Products," April 25, 2012, 3.

[11] Textile Outlook International, "Trends in World Textile and Clothing Trade," 2013, 75.

[12] OTEXA, Major Shippers Report, April 2, 2013.

[13] ChinaTexNet, "U.S. Next Textile and Apparel Imports Decline in 2012," March 18, 2013; USDA, FAS, "Mexico: Cotton and Products," April 25, 2012, 4.

# Footwear

## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $1.2 billion (6 percent) to $22.9 billion**
**U.S. exports: Decreased by $7 million (1 percent) to $824 million**
**U.S. imports: Increased by $1.2 billion (5 percent) to $23.7 billion**

In 2012, the U.S. trade deficit in footwear grew by $1.2 billion (6 percent), owing to a sizable increase in U.S. imports of $1.2 billion and a marginal decrease of $7 million in U.S. exports (table TX.3). Imports supplied over 95 percent of domestic demand in 2012.[14] China was by far the largest supplier of footwear to the United States, accounting for 72 percent of all U.S. footwear imports. However, other Asian producers, particularly Vietnam and Indonesia, continued to steadily increase their share of the U.S. market at China's expense. Though U.S. exports declined slightly in 2012 from a peak of $832 million in 2011, the 2012 level was the second-highest during the past five years.

While U.S. exports to most major export destinations decreased moderately in 2012, exports to Canada, the largest export market, increased by $22 million. Consumer spending on footwear increased by 5 percent between 2011 and 2012.[15] According to industry sources, expenditures on women's footwear led this growth, particularly spending on shoes, sandals, and lightweight running shoes.[16] However, for many products, higher consumer expenditures were mostly the result of higher retail prices, as rising materials, transportation, and labor costs were passed on to consumers. For example, while revenues from athletic shoes increased by 4 percent in 2012 compared with 2011, unit sales were flat.[17]

## *U.S. Exports*

Canada and the Republic of Korea (Korea) were the top two export markets for U.S. producers; these countries accounted for 14 percent and 12 percent, respectively, of U.S. exports of footwear by value in 2012. U.S. exports of footwear to its largest market, Canada, increased by the greatest percentage and amount, up $22 million (24 percent) to $116 million. U.S. exports to Korea, meanwhile, increased by $7 million (7 percent) to $101 million. Other important markets for U.S. footwear exports in 2012 were Japan, Mexico, and Hong Kong.[18] U.S. exports to most major export destinations decreased moderately.

[14] IBISWorld, "Shoe and Footwear Manufacturing in the U.S.," July 2012, 15.
[15] USDOL, BEA, *Personal Consumption Expenditures,* March 2013, table 4.5U.
[16] NPD Group, "NPD Reports Women Are Back to 'Sole' Searching," February 5, 2013.
[17] NPD Group, "The NPD Group Reports Annual Athletic Footwear Sales up 4%," February 6, 2013.
[18] Compiled from official statistics of the U.S. Dept. of Commerce. These countries do not appear in table TX.3 because the table was generated based on U.S. imports, which far exceed U.S. exports.

**TABLE TX.3 Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| China | 35 | 44 | 55 | 56 | 47 | -9 | -15.4 |
| Vietnam | 26 | 25 | 47 | 54 | 39 | -15 | -28.0 |
| Italy | 6 | 6 | 4 | 6 | 4 | -2 | -32.0 |
| Indonesia | 8 | 6 | 7 | 12 | 12 | 1 | 4.3 |
| Mexico | 79 | 63 | 79 | 65 | 57 | -8 | -11.8 |
| Dominican Rep | 27 | 22 | 23 | 26 | 26 | -1 | -2.3 |
| India | 6 | 5 | 4 | 4 | 4 | (a) | -7.1 |
| Brazil | 4 | 1 | 2 | 4 | 2 | -2 | -41.0 |
| Spain | 3 | 2 | 3 | 4 | 2 | -2 | -43.1 |
| Canada | 86 | 83 | 87 | 94 | 116 | 22 | 23.8 |
| All other | 393 | 363 | 417 | 507 | 514 | 7 | 1.4 |
| Total | 673 | 620 | 728 | 832 | 824 | -7 | -0.9 |
| EU | 68 | 53 | 56 | 56 | 56 | (a) | (z) |
| OPEC | 45 | 32 | 37 | 53 | 50 | -4 | -7.2 |
| Latin America | 194 | 176 | 218 | 230 | 216 | -14 | -6.0 |
| Asia | 238 | 229 | 287 | 347 | 336 | -11 | -3.2 |
| Sub-Saharan Africa | 32 | 34 | 29 | 35 | 27 | -8 | -22.3 |
| U.S. imports for consumption | | | | | | | |
| China | 14,444 | 13,415 | 15,727 | 16,677 | 17,026 | 349 | 2.1 |
| Vietnam | 1,212 | 1,323 | 1,616 | 2,019 | 2,388 | 368 | 18.2 |
| Italy | 1,127 | 771 | 896 | 1,113 | 1,198 | 86 | 7.7 |
| Indonesia | 408 | 446 | 593 | 764 | 940 | 175 | 22.9 |
| Mexico | 255 | 254 | 319 | 371 | 492 | 121 | 32.6 |
| Dominican Rep | 134 | 121 | 167 | 207 | 244 | 38 | 18.3 |
| India | 188 | 164 | 180 | 196 | 264 | 68 | 34.8 |
| Brazil | 518 | 382 | 360 | 253 | 210 | -44 | -17.2 |
| Spain | 170 | 106 | 115 | 142 | 164 | 21 | 14.9 |
| Canada | 77 | 66 | 66 | 55 | 49 | -6 | -11.8 |
| All other | 918 | 617 | 671 | 762 | 771 | 9 | 1.2 |
| Total | 19,451 | 17,666 | 20,710 | 22,559 | 23,745 | 1,185 | 5.3 |
| EU | 1,586 | 1,090 | 1,278 | 1,560 | 1,676 | 116 | 7.4 |
| OPEC | 1 | 1 | 1 | 1 | (a) | -1 | -57.0 |
| Latin America | 931 | 780 | 871 | 878 | 1,003 | 126 | 14.3 |
| Asia | 16,766 | 15,658 | 18,414 | 19,979 | 20,921 | 942 | 4.7 |
| Sub-Saharan Africa | 2 | 1 | 1 | 2 | 9 | 7 | 295.4 |



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, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| China | -14,409 | -13,371 | -15,671 | -16,622 | -16,979 | -358 | -2.2 |
| Vietnam | -1,186 | -1,298 | -1,569 | -1,965 | -2,349 | -384 | -19.5 |
| Italy | -1,120 | -765 | -892 | -1,107 | -1,194 | -87 | -7.9 |
| Indonesia | -399 | -440 | -586 | -752 | -927 | -175 | -23.2 |
| Mexico | -176 | -191 | -239 | -307 | -435 | -129 | -41.9 |
| Dominican Rep | -107 | -99 | -144 | -180 | -219 | -38 | -21.3 |
| India | -182 | -159 | -176 | -192 | -260 | -69 | -35.8 |
| Brazil | -514 | -381 | -358 | -249 | -207 | 42 | 16.9 |
| Spain | -167 | -104 | -113 | -138 | -161 | -23 | -16.7 |
| Canada | 9 | 18 | 21 | 39 | 68 | 29 | 74.1 |
| All other | -525 | -254 | -254 | -255 | -256 | -2 | -0.7 |
| Total | -18,778 | -17,046 | -19,982 | -21,728 | -22,920 | -1,193 | -5.5 |
| EU | -1,518 | -1,037 | -1,222 | -1,504 | -1,620 | -116 | -7.7 |
| OPEC | 45 | 32 | 36 | 52 | 49 | -3 | -6.3 |
| Latin America | -737 | -604 | -653 | -648 | -787 | -139 | -21.5 |
| Asia | -16,528 | -15,429 | -18,127 | -19,632 | -20,585 | -953 | -4.9 |
| Sub-Saharan Africa | 30 | 33 | 27 | 33 | 18 | -15 | -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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

[a]Less than $500,000.
[b]Less than 0.05 percent.

Exports are a significant source of revenue for domestic footwear manufacturers, accounting for an estimated 38 percent of industry revenues in 2012.[19] U.S. production of footwear is largely concentrated in niche markets—rubber/fabric footwear,[20] men's work shoes, and plastic/protective footwear.[21] These products are technologically advanced, meet particular health, defense, and safety standards, and have garnered a reputation for quality in major export markets.[22] Footwear parts, including removable insoles, heel cushions, and gaiters, made up about one-quarter of U.S. exports in 2012.[23] Such exports are generally used to assemble final goods overseas.

## *U.S. Imports*

U.S. imports of footwear increased by $1.2 billion (5 percent) to $23.7 billion in 2012. This growth was driven by imports from Asia, which increased by nearly $1 billion ($942 million) between 2011 and 2012, particularly from China, Vietnam, and to a lesser extent, Indonesia. The largest absolute increases were in imports from China and Vietnam, the two leading U.S. suppliers. Nearly three-quarters (72 percent) of U.S. imports of footwear in 2012 were supplied by China. However, many footwear companies are employing a "China plus one" sourcing strategy in order to diversify their supply chains, expanding into nearby countries such as Vietnam and Indonesia.[24] U.S. imports from Vietnam and Indonesia grew by 134 percent and 130 percent, respectively, during 2008–12 and by 18 percent and 23 percent in 2012 over 2011, respectively.

Because the footwear industry is highly labor intensive, many U.S. producers have shifted production to low-cost countries, maintaining branding and design capabilities in the United States.[25] For example, Nike produced 98 percent of its footwear overseas in 2012.[26] Between 2007 and 2012, the number of domestic footwear manufacturing facilities declined from 1,050 to 721 and the workforce declined from 15,761 to 11,581.[27]

While Asian producers supply low-cost shoes, Italy specializes in high-end shoes and fashion footwear that use expensive inputs (especially leather) and command a price premium.[28] Thus, Italy continues to be an important supplier to the high-end U.S. market and remained the third-largest supplier of footwear to the United States in 2012, growing by 8 percent over 2011.

[19] IBISWorld, "Shoe and Footwear Manufacturing," July 2012, 8.
[20] Rubber and plastic footwear products have vulcanized, molded, or cemented soles and fabric uppers.
[21] AAFA, "ShoeStats 2012," September 2012, 12.
[22] IBISWorld, "Shoe and Footwear Manufacturing," July 2012, 14.
[23] Compiled from official statistics of the U.S. Department of Commerce.
[24] AAFA, "ShoeStats 2012," September 2012, 5.
[25] IBISWorld, "Shoe and Footwear Manufacturing," July 2012, 4.
[26] Nike, "Form 10-K," July 24, 2012. (Nike's fiscal year 2012 ended on May 31, 2012).
[27] IBISWorld, "Shoe and Footwear Manufacturing," July 2012, 15.
[28] IBISWorld, "Shoe and Footwear Manufacturing," July 2012, 6, 11, 2012; values are estimates.

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# Transportation Equipment[1]

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## *Change in 2012 from 2011:*

**U.S. trade deficit: Increased by $23.6 billion (48 percent) to $72.6 billion**
**U.S. exports: Increased by $28.2 billion (11 percent) to $285.8 billion**
**U.S. imports: Increased by $51.8 billion (17 percent) to $358.4 billion**

The U.S. trade deficit in transportation equipment grew for the third straight year in tandem with the slow recovery from the economic downturn, as growth in U.S. imports of transportation equipment again outpaced growth in U.S. exports in 2012 (table TE.1). The trade deficit in motor vehicles and parts ($137.7 billion) continued to drive the increased U.S. trade deficit in the sector, though it was partially offset by the growing trade surplus in aircraft ($71.1 billion). The United States had a trade deficit in transportation equipment with many of its leading trade partners in 2012, including Canada, Mexico, Japan, Germany, and Korea, but maintained a trade surplus with China.

## *U.S. Exports*

In terms of absolute value, the growth in U.S. exports of transportation equipment in 2012 was led by aircraft equipment, increasing $13.2 billion (16 percent) to $95.2 billion, followed by exports of motor vehicles, which rose by $6.2 billion (11 percent) (table TE.2). U.S. exports of aircraft equipment, which accounted for 33 percent ($95.2 billion) of sector exports, grew largely on the strength of Boeing,[2] one of the world's leading large civil aircraft producers. U.S. exports of motor vehicles continued to recover from the economic recession, accounting for 23 percent ($65.7 billion) of total export value in 2012. Other leading exports in 2012 included motor vehicle parts, which rose by 6 percent, and construction equipment, which increased by 7 percent.

On a percentage basis, the largest increase in U.S. exports occurred in the ship, boat, and related products industry, which posted a 40 percent increase ($967 million) in 2012 to $3.4 billion. U.S. exports of floating or submersible drilling or production platforms led the increase, rising from nearly $22 million in 2011 to $912 million in 2012, likely reflecting greater investment in offshore oilfield development in response to higher global demand and prices.[3]

[1] Transportation equipment includes motor vehicles, trailers, semitrailers, and parts; aircraft, spacecraft, and related equipment; ships, boats, and similar vessels; rail locomotives and rolling stock; motorcycles, all-terrain vehicles, and similar vehicles; turbines; motors and engines; batteries; and ball and roller bearings.

[2] Boeing reported deliveries of 601 commercial aircraft in 2012, up from 477 aircraft in 2011. Boeing website, http://boeing.mediaroom.com/ (accessed May 8, 2013).

[3] For example, the number of oil and gas rigs globally increased by 53 units to 3,518 rigs in 2012. IBISWorld, *Global Oil and Gas Exploration and Production,* March 2013, 30.

**TABLE TE.1 Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. exports of domestic merchandise | | | | | | | |
| Canada | 63,980 | 44,447 | 57,243 | 63,354 | 67,427 | 4,072 | 6.4 |
| Mexico | 21,572 | 16,804 | 22,528 | 27,130 | 31,213 | 4,083 | 15.0 |
| Japan | 10,693 | 7,095 | 7,535 | 7,748 | 11,463 | 3,715 | 47.9 |
| Germany | 16,196 | 11,659 | 11,312 | 13,118 | 13,507 | 388 | 3.0 |
| China | 9,659 | 9,193 | 12,519 | 15,827 | 17,494 | 1,667 | 10.5 |
| Korea | 4,304 | 3,238 | 4,704 | 4,807 | 5,578 | 771 | 16.0 |
| United Kingdom | 11,072 | 8,208 | 8,818 | 9,933 | 9,574 | -358 | -3.6 |
| France | 8,364 | 9,161 | 7,677 | 7,828 | 8,261 | 434 | 5.5 |
| Brazil | 9,108 | 6,407 | 7,205 | 9,140 | 8,997 | -142 | -1.6 |
| Australia | 6,613 | 4,491 | 5,918 | 8,522 | 10,728 | 2,206 | 25.9 |
| All other | 95,955 | 73,380 | 76,943 | 90,182 | 101,530 | 11,348 | 12.6 |
| Total | 257,516 | 194,082 | 222,403 | 257,589 | 285,772 | 28,183 | 10.9 |
| EU | 59,168 | 44,357 | 41,916 | 48,272 | 47,994 | -278 | -0.6 |
| OPEC | 23,304 | 18,164 | 17,730 | 20,677 | 29,266 | 8,589 | 41.5 |
| Latin America | 43,810 | 34,594 | 41,802 | 50,207 | 56,535 | 6,329 | 12.6 |
| Asia | 43,056 | 35,712 | 42,824 | 48,467 | 55,032 | 6,566 | 13.5 |
| Sub-Saharan Africa | 6,791 | 4,969 | 5,330 | 7,043 | 7,926 | 884 | 12.5 |
| U.S. imports for consumption | | | | | | | |
| Canada | 63,547 | 43,301 | 58,922 | 64,420 | 73,230 | 8,811 | 13.7 |
| Mexico | 48,042 | 37,697 | 57,439 | 67,167 | 77,547 | 10,380 | 15.5 |
| Japan | 65,731 | 40,241 | 52,674 | 55,569 | 69,277 | 13,707 | 24.7 |
| Germany | 31,252 | 20,809 | 27,458 | 32,826 | 38,113 | 5,287 | 16.1 |
| China | 10,837 | 8,553 | 11,850 | 15,284 | 16,866 | 1,582 | 10.4 |
| Korea | 11,315 | 9,059 | 11,397 | 15,542 | 18,899 | 3,357 | 21.6 |
| United Kingdom | 11,008 | 7,690 | 9,367 | 10,859 | 12,667 | 1,808 | 16.7 |
| France | 11,404 | 9,478 | 10,588 | 10,638 | 11,494 | 856 | 8.0 |
| Brazil | 4,898 | 2,066 | 2,221 | 2,949 | 3,325 | 376 | 12.7 |
| Australia | 1,449 | 548 | 502 | 717 | 827 | 110 | 15.3 |
| All other | 29,214 | 20,367 | 24,527 | 30,607 | 36,164 | 5,557 | 18.2 |
| Total | 288,697 | 199,808 | 266,946 | 306,579 | 358,409 | 51,831 | 16.9 |
| EU | 70,232 | 48,048 | 59,848 | 71,354 | 82,394 | 11,040 | 15.5 |
| OPEC | 55 | 25 | 35 | 48 | 60 | 12 | 25.2 |
| Latin America | 53,852 | 40,391 | 60,576 | 71,230 | 82,097 | 10,867 | 15.3 |
| Asia | 94,340 | 63,267 | 82,566 | 93,389 | 113,831 | 20,442 | 21.9 |
| Sub-Saharan Africa | 2,052 | 1,549 | 1,713 | 2,318 | 2,167 | -151 | -6.5 |

**TABLE TE.1 Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2008–12—*Continued***

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| U.S. merchandise trade balance | | | | | | | |
| Canada | 433 | 1,146 | -1,679 | -1,065 | -5,804 | -4,739 | -444.8 |
| Mexico | -26,470 | -20,892 | -34,912 | -40,037 | -46,334 | -6,297 | -15.7 |
| Japan | -55,038 | -33,146 | -45,138 | -47,821 | -57,814 | -9,993 | -20.9 |
| Germany | -15,056 | -9,150 | -16,146 | -19,707 | -24,606 | -4,899 | -24.9 |
| China | -1,178 | 640 | 669 | 543 | 628 | 85 | 15.6 |
| Korea | -7,011 | -5,821 | -6,694 | -10,735 | -13,321 | -2,586 | -24.1 |
| United Kingdom | 64 | 518 | -549 | -926 | -3,093 | -2,166 | -233.9 |
| France | -3,040 | -317 | -2,911 | -2,811 | -3,233 | -422 | -15.0 |
| Brazil | 4,210 | 4,341 | 4,985 | 6,190 | 5,672 | -518 | -8.4 |
| Australia | 5,164 | 3,944 | 5,416 | 7,805 | 9,901 | 2,096 | 26.9 |
| All other | 66,740 | 53,012 | 52,416 | 59,575 | 65,366 | 5,791 | 9.7 |
| Total | -31,181 | -5,726 | -44,543 | -48,989 | -72,637 | -23,648 | -48.3 |
| EU | -11,064 | -3,691 | -17,933 | -23,082 | -34,400 | -11,318 | -49.0 |
| OPEC | 23,248 | 18,139 | 17,695 | 20,629 | 29,206 | 8,577 | 41.6 |
| Latin America | -10,041 | -5,797 | -18,774 | -21,023 | -25,562 | -4,538 | -21.6 |
| Asia | -51,284 | -27,555 | -39,742 | -44,923 | -58,799 | -13,877 | -30.9 |
| Sub-Saharan Africa | 4,738 | 3,420 | 3,618 | 4,725 | 5,759 | 1,034 | 21.9 |

*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. The countries shown are those with the largest total U.S. trade (U.S. imports plus U.S. exports) in these products in the current year. See appendix B for country group definitions.

**TABLE TE.2 Transportation equipment: Leading changes in U.S. exports and imports, 2008–12**

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|
| | Million dollars | | | | | | |
| **U.S. EXPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Aircraft, spacecraft, and related equipment (TE013) | 69,516 | 77,700 | 73,949 | 82,028 | 95,210 | 13,182 | 16.1 |
| Motor vehicles (TE009) | 56,898 | 35,963 | 48,940 | 59,454 | 65,669 | 6,215 | 10.5 |
| Ships, tugs, pleasure boats, and similar vessels (TE014) | 3,155 | 1,946 | 2,525 | 2,420 | 3,387 | 967 | 39.9 |
| **All other** | 127,946 | 78,474 | 96,989 | 113,687 | 121,507 | 7,819 | 6.9 |
| Total | 257,516 | 194,082 | 222,403 | 257,589 | 285,772 | 28,183 | 10.9 |
| **U.S. IMPORTS** | | | | | | | |
| **Increases** | | | | | | | |
| Motor vehicles (TE009) | 142,541 | 94,348 | 132,471 | 144,426 | 171,556 | 27,130 | 18.8 |
| Certain motor-vehicle parts (TE010) | 49,190 | 35,296 | 51,903 | 59,875 | 69,605 | 9,729 | 16.2 |
| Construction and mining equipment (TE004) | 12,291 | 6,345 | 8,213 | 12,935 | 16,302 | 3,367 | 26.0 |
| Motors and engines, except internal combustion, aircraft, or electric (TE015) | 3,370 | 2,240 | 2,431 | 3,358 | 4,466 | 1,109 | 33.0 |
| Ships, tugs, pleasure boats, and similar vessels (TE014) | 1,862 | 1,510 | 1,804 | 1,395 | 2,005 | 610 | 43.8 |
| **All other** | 79,443 | 60,068 | 70,124 | 84,590 | 94,475 | 9,885 | 11.7 |
| Total | 288,697 | 199,808 | 266,946 | 306,579 | 358,409 | 51,831 | 16.9 |

*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. 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 caused 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.

Canada remained the leading U.S. market for transportation equipment, accounting for 24 percent of U.S. exports in 2012, followed by Mexico with 11 percent. Motor vehicles and parts were the leading U.S. exports to these two markets, in large part because of the integration of the motor vehicle industry in North America spurred by the North American Free Trade Agreement (NAFTA). China, Germany, and Japan rounded out the top five export markets for transportation equipment, representing 6 percent, 5 percent, and 4 percent, respectively, of U.S. sector exports.

U.S. exports of aircraft to China rose by nearly $1.6 billion (25 percent) to $7.9 billion in 2012, representing 45 percent of total U.S. transportation equipment exports to China. U.S. exports to Japan were also dominated by aircraft, which posted a strong gain in 2012, up 73 percent to $8.1 billion.[4] U.S. exports to Germany, on the other hand, were led by motor vehicles and parts, reflecting the strong ties between the German domestic industry and U.S. "transplant" producers BMW and Mercedes-Benz, both of which have a localized supply network in the United States.

## *U.S. Imports*

The largest contributors to the increase in U.S. imports of transportation equipment in 2012, in terms of absolute value, were the motor vehicle and motor-vehicle parts industries. Imports of these products rose by $171.6 billion (19 percent) and $69.6 billion (16 percent), respectively. These two industries accounted for a combined 67 percent ($241.2 billion) of total U.S. imports of transportation equipment in 2012. The continuing economic recovery, with improved consumer demand and credit availability,[5] contributed to the growth in motor vehicle and parts imports as U.S. sales and production of motor vehicles both increased during 2012. U.S. light motor vehicle sales, for example, rose to 14.4 million units, up 13 percent from the 2011 total of 12.7 million units,[6] and total U.S. motor vehicle production grew to 10.3 million units in 2012, up 19 percent from the 2011 total of 8.7 million units (figure TE.1).[7] Other leading imports included certain internal combustion engines (up 9 percent, or nearly $2 billion) and aircraft (up 12 percent, or $24.1 billion).

As with U.S. exports, U.S. imports of ships, boats, and related products posted the greatest percentage shift in 2012, increasing by 44 percent ($610 million) to $2.0 billion, largely driven by imports of floating or submersible drilling or production platforms. Imports of these goods increased more than fivefold to nearly $600 million in 2012, likely in response to increased investment in offshore oil drilling spurred by growing demand and higher prices for oil, as previously noted.

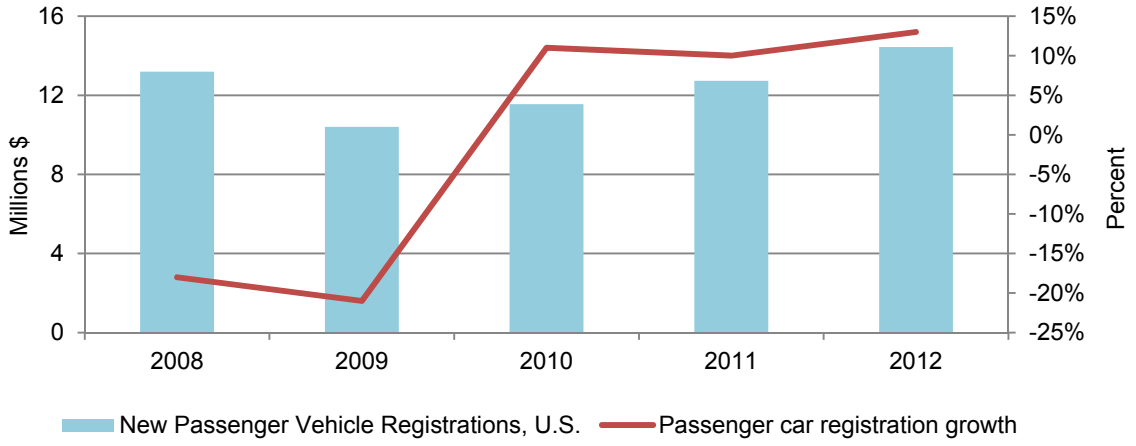
[4] Boeing reported deliveries of 79 commercial aircraft to China in 2012, up from 57 aircraft in 2011, and of 37 commercial aircraft to Japan in 2012, up from 21 aircraft in 2011. Deliveries to Japan included twenty-one 787 Dreamliners. Boeing website. http://www.boeing.com/boeing (accessed April 5, 2013).

[5] Woodall and Klayman, "Auto Industry Posts Best U.S. Sales Year," January 3, 2013.

[6] Ward's Automotive Reports, "Ward's U.S. Light-Vehicle Sales," January 7, 2013, 6.

[7] Ward's Automotive Reports, "Ward's North America Vehicle Production Summary," January 14, 2013, 8.

**FIGURE TE. 1** New passenger vehicle registrations reached a four-year high in 2012




*Source:* EIU, "United States of America: Automotive Report," April 23, 2013.

Many leading U.S. export markets in 2012—specifically Mexico, Canada, Japan, and Germany—were also the major sources of U.S. imports, with Korea rounding out the top five U.S. import sources. These five countries have strong ties to the U.S. motor vehicle and motor vehicle parts industries through transplant production or regional industry integration. They accounted for 77 percent ($277 billion) of total transportation equipment imports in 2012 and 84 percent ($201.8 billion) of total motor vehicle and motor vehicle parts imports.

Imports from NAFTA partners and Japan account for the majority of U.S. imports of motor vehicles and parts. Mexico was by far the leading source of U.S. imports of certain motor-vehicle parts in 2012, accounting for 38 percent ($26.6 billion) of total U.S. parts imports, and Canada provided another 14 percent ($9.9 billion) of such imports. These two NAFTA partners were also among the three largest sources of U.S. imports of motor vehicles in 2012, in addition to Japan. U.S. imports of motor vehicles from Canada, the leading U.S. supplier, rose by 18 percent to $47.2 billion in 2012, and accounted for 28 percent of total motor vehicle imports. U.S. imports of motor vehicles from Japan increased by 25 percent to $39.7 billion, reflecting the industry's ongoing recovery from the severe effects of the Tohoku earthquake and tsunami in early 2011. U.S. motor vehicle imports from Mexico increased as well, by 16 percent to $35.7 billion.

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# Part IV: Special Topic Chapter

The Special Topic Chapter, entitled “Trends in the Use of Trade Preference Programs for U.S. Imports,” examines U.S. import shifts during 2008–12 under various trade preference programs, including the African Growth and Opportunity Act, Andean Trade Preference Act, Caribbean Basin Initiative, and the Generalized System of Preferences. Specifically, it discusses fluctuations in the share of imports from eligible countries receiving preferential treatment; examines shifts in the composition of merchandise imported under the provisions; and lists the names of countries added to or removed from eligibility for one or more of the programs since 2008.

# Trends in the Use of Trade Preference Programs for U.S. Imports[1]

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To assist developing, industrializing, and transitional economies, the United States offers duty-free market access principally through four trade preference programs:[2]

- the African Growth and Opportunity Act (AGOA);
- the Andean Trade Preference Act (ATPA);
- the Caribbean Basin Initiative (CBI), and
- the Generalized System of Preferences (GSP) program.

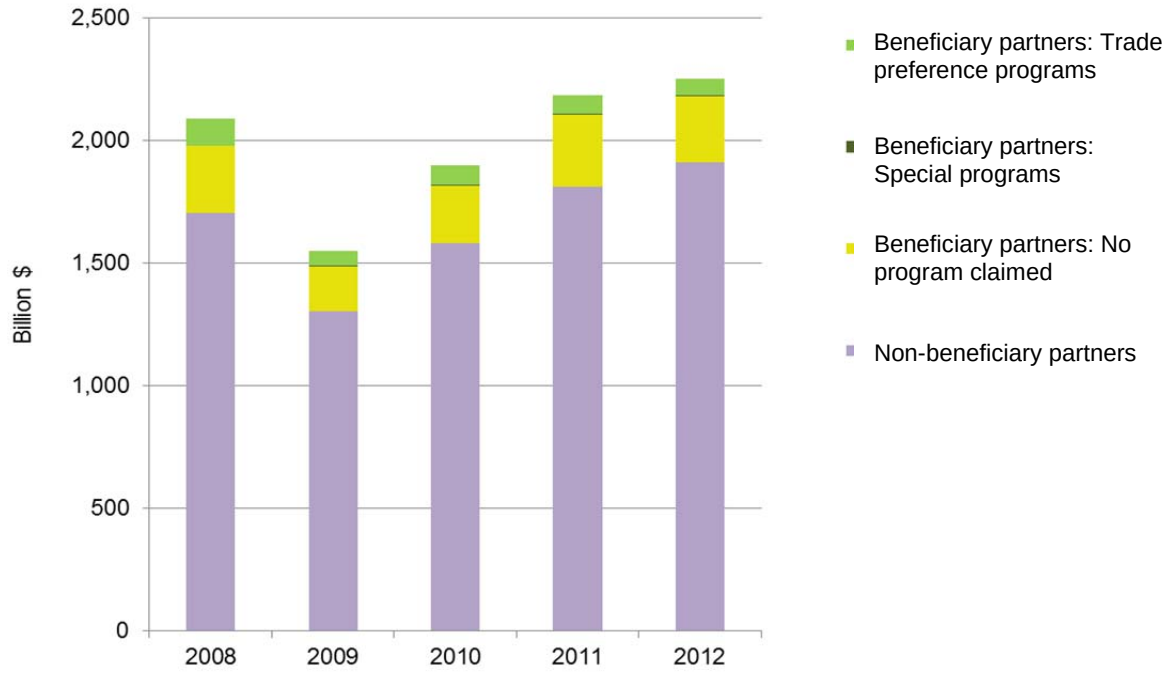
Most trade preference program beneficiary countries are not major U.S. trade partners. Their shipments entering the U.S. market—whether under trade preference programs, other special programs,[3] or no program claimed—collectively accounted for 15 percent of all U.S. imports in 2012 (figure ST.1), 3 percentage points less than in 2008. However, compared to U.S. imports from all trade partners, the share entering the United States under these trade preference programs was in the range of 3–5 percent during 2008–12. U.S. imports under the four trade preference programs have risen every year since 2009 following the global recession, but have not regained the levels recorded in 2008. Likewise, imports entering the U.S. market under each individual trade preference program in successive years did not reach their 2008 values (figure ST.2).

[1] Import trends in this chapter are presented over the longer five-year period, from 2008 to 2012, to gain greater insight into the shifts in U.S. imports form a larger group of trade partners designated as beneficiaries of U.S. trade preference programs. The leading shifts over the five-year period are identified in terms of the relevant merchandise sectors (and products within the sectors), along with the predominant beneficiary sources. For a previous assessment of U.S. import trends under trade preference programs during the five-year period 2004–08, see Tsuji, "U.S. Imports from Trade Preference Program Beneficiaries," July 2009, US-11 to US-16.

[2] Country beneficiary status and product eligibility can differ significantly among trade preference programs. Further, some trade partners may be designated as a beneficiary of both the Generalized System of Preferences program and a regional trade preference program. For more information about these trade preference programs, see USTR, "Preference Programs," at http://www.ustr.gov/trade-topics/trade-development/preference-programs.

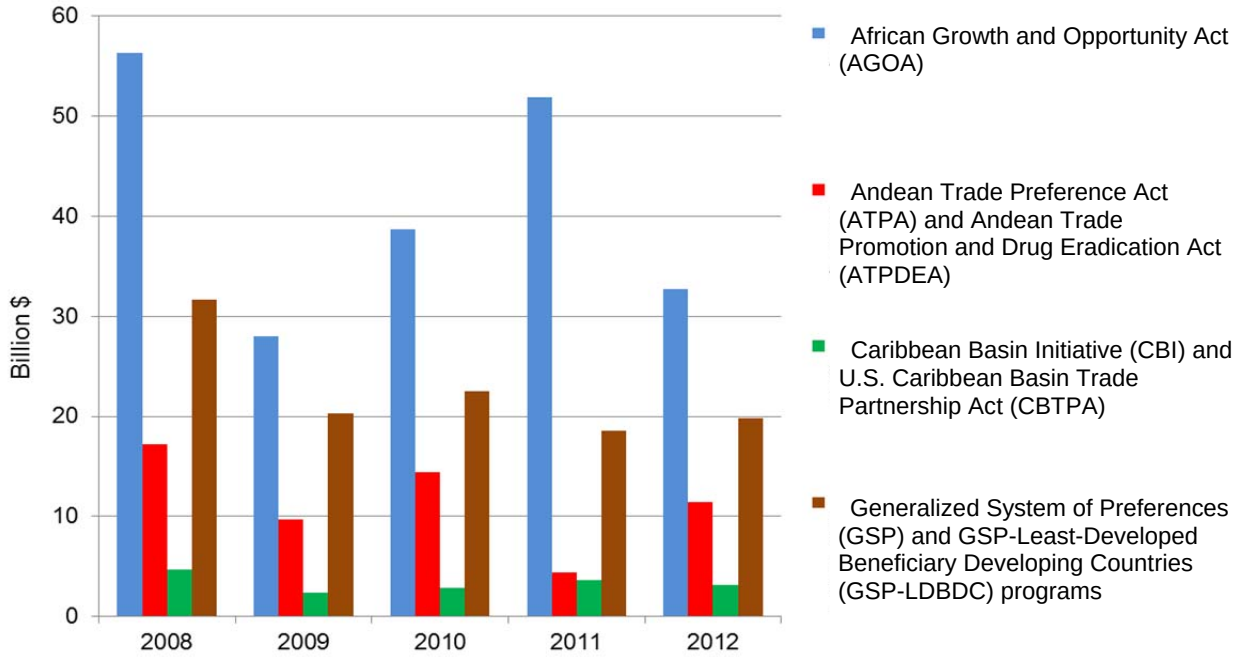
[3] Special import programs include the Agreement on Trade in Pharmaceutical Products, Agreement on Trade in Civil Aircraft, Automotive Products Trade Act, Uruguay Round Concessions on Intermediate Chemicals for Dyes, and West Bank and Qualifying Industrial Zones. Imports from countries eligible for benefits under the four trade preference programs entering the U.S. market under these special programs totaled $3–5 billion or 0.1–0.3 percent of all U.S. imports from beneficiary partners during 2008–12 (figure ST.1). Hence, due to these very small overall values and shares, shifts among U.S. imports from beneficiary partners under these special import programs are not examined further in this chapter.

**FIGURE ST.1** U.S. imports from beneficiary partners and non-partners, 2008–12




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

**FIGURE ST.2** U.S. imports by trade preference programs, 2008–12




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

Levels of imports under trade preference programs reflect not only the overall shifts in U.S. imports affecting all trade partners, as the U.S. economy resumed growing over the past three years since the 2008–09 recession,[4] but also several notable additions of and removals from beneficiary status for individual countries under these programs (table ST.1). In the following sections, imports under each U.S. trade preference program are examined in more detail, not only among leading industry sectors, but also for more specific products.

## *African Growth and Opportunity Act*[5]

Imports entering the U.S. market under AGOA provisions accounted for between 46 percent and 66 percent of U.S. imports entering under all U.S. during 2008–12. Energy-related products accounted for 90–93 percent of all AGOA imports in each of the five most recent years (figure ST.3), as several sub-Saharan African (SSA) countries eligible for AGOA benefits are major export-oriented producers of crude petroleum—particularly Nigeria (the largest producer in Africa), but also Angola, the Republic of Congo (Congo-Brazzaville), Chad, and Gabon.[6] The value of U.S. imports of energy-related products has significantly decreased since 2008 reflecting both smaller imported quantities due to recessionary economic conditions in 2009 and import-offsetting increased domestic production in 2011.[7]

Transportation equipment and textiles and apparel were the next largest import categories under AGOA. U.S. motor vehicle imports from South Africa, in particular, accounted for much of the overall increased imports of transportation equipment. Multinational Western European, U.S., and Japanese automakers have invested in South Africa to produce motor vehicle parts and assemble motor vehicles for both local and international markets.[8]

[4] See the "Overview of Economic Performance" chapter of this report.

[5] The original AGOA (AGOA I) was signed into law on May 18, 2000, as Title 1 of The Trade and Development Act of 2000. It offered duty-free U.S. market access for almost all products originating in the designated beneficiary sub-Saharan African (SSA) countries. Its goals were to expand U.S. international trade and foreign direct investment with the region, stimulate regional economic growth, and facilitate the region's integration into the global economy. The act has been amended three times since its original passage to offer further benefits for eligible SSA countries. Forty SSA countries were eligible for AGOA benefits in 2012. AGOA preferences are currently scheduled to expire on September 30, 2015. For further information, see: "African Growth and Opportunity Act," in USITC, *The Year in Trade 2012*, July 2013, 2-15 to 2-17; USDOC, ITA, "AGOA, Legislation," n.d. (accessed April 24, 2013); USDOC, ITA, "AGOA, Eligibility," n.d. (accessed April 24, 2013); USTR, "African Growth and Opportunity Act (AGOA)," n.d. (accessed April 24, 2013); USTR, "Ambassador Kirk Announces Results," December 29, 2011.

[6] USDOE, EIA, "Nigeria," October 16, 2012; "Angola," January 8, 2013; "Congo-Brazzaville," January 31, 2013; "Chad," March 2013; and "Gabon," February 13, 2013.

[7] Foreso, "Energy-related Products," August 2010, EP-1 and EP-7. See also the "Energy-related Products" chapter of this publication.

[8] SouthAfrica.info, "South Africa's Automotive Industry," November 27, 2012. North America is the third-largest continental market after Europe and Africa. South African assembly facilities exported about 68,000 motor vehicles to North America in 2012, up from about 58,000 in 2010. AIEC, "South Africa's Top 5 Exports by Continent," n.d. (accessed April 29, 2013). More specifically, among the nine multinational motor vehicle manufacturers currently operating in South Africa, at least two report exporting their passenger vehicles to the United States: BMW's 3-Series and Mercedes-Benz's C-Class model vehicles. BMW South Africa, "BMW Markets, Exports;" and MBSA, "Corporate Profile."

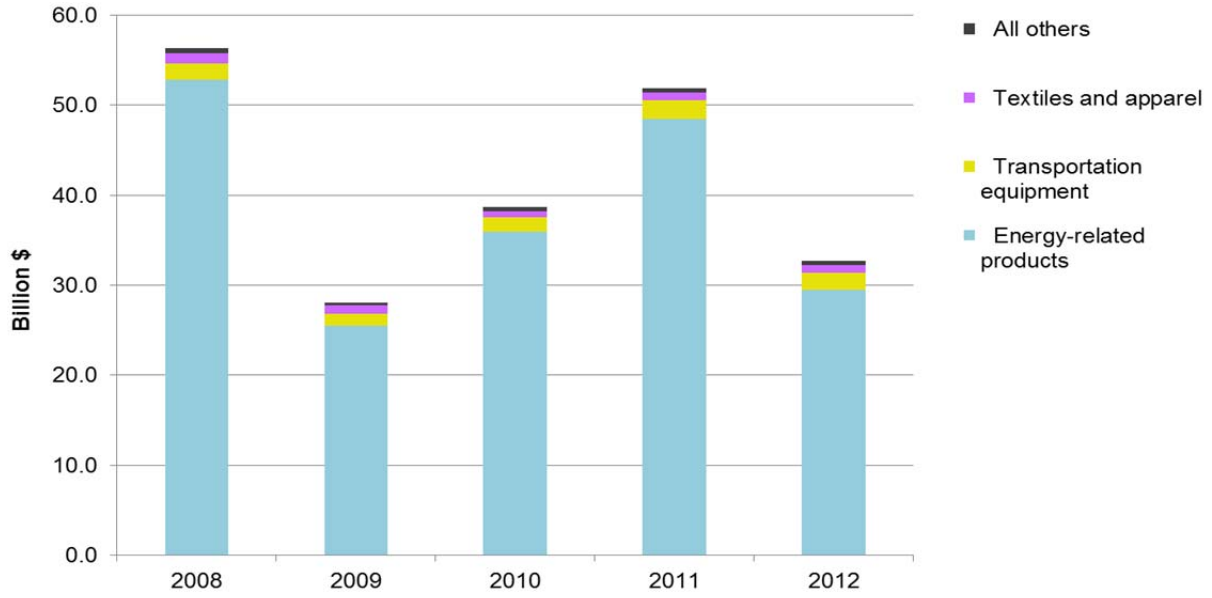
**TABLE ST.1** Changes in countries' designations as beneficiaries under U.S. trade preference programs, January 1, 2008–December 31, 2012

| Effective date | Changes in countries' designations as beneficiaries |
|---|---|
| May 17, 2008 | The Republic of **Togo** is included as a beneficiary country under the African Growth and Opportunity Act (AGOA). |
| June 21, 2008 | **The Solomon Islands** is included as a least-developed beneficiary developing country (LDBDC) under the Generalized System of Preferences (GSP) program. |
| July 30, 2008 | The single country of Serbia and Montenegro is replaced by **Montenegro** and **Serbia** as two separate beneficiary developing countries under the GSP program. |
| December 15, 2008 | **Bolivia** is removed as a beneficiary country under the Andean Trade Preference Act (ATPA). |
| January 1, 2009 | The Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR) enters into force for **Costa Rica**. Costa Rica is also removed as a beneficiary developing country under the GSP and as a beneficiary country under both the Caribbean Basin Economic Recovery Act (CBERA) and the United States-Caribbean Basin Trade Partnership Act of 2000 (CBTPA). |
| January 1, 2009 | **Mauritania** is removed as a beneficiary country under AGOA. |
| January 1, 2009 | The United States-**Oman** Free Trade Agreement (UOFTA) enters into force, and Oman is removed as a beneficiary developing country under the GSP program. |
| February 1, 2009 | **Azerbaijan** and **Kosovo** are included as beneficiary developing countries under the GSP program. |
| February 1, 2009 | The United States-**Peru** Trade Promotion Agreement Implementation Act enters into force, and Peru is removed as a beneficiary developing country under the GSP program. |
| January 1, 2010 | **The Maldives** is included as a beneficiary developing country under the GSP program. |
| January 1, 2010 | **Trinidad and Tobago** is removed as a beneficiary developing country under the GSP program. |
| January 1, 2010 | **Cape Verde** is removed as a LDBDC under the GSP program. |
| January 1, 2010 | **Mauritania** is included as a beneficiary country under AGOA. |
| January 1, 2011 | **Cape Verde** and **Croatia** are removed as beneficiary developing countries, and **Equatorial Guinea** is removed as both a beneficiary developing country and a LDBDC, under the GSP program. |
| January 1, 2011 | **The Democratic Republic of the Congo** is removed as a beneficiary country under AGOA. |
| January 1, 2011 | **Peru** is removed as a beneficiary country under ATPA. |
| October 25, 2011 | **Côte d'Ivoire**, **Guinea**, and **Niger** are included as beneficiary countries under AGOA. |
| May 28, 2012 | **Argentina** is removed as a beneficiary developing country under the GSP program. |
| May 15, 2012 | The United States-**Colombia** Trade Promotion Agreement Implementation Act enters into force, and Colombia is removed as a beneficiary country under ATPA. |
| May 28, 2012 | **South Sudan** is included as both a beneficiary developing country and a LDBDC under the GSP program. |
| July 1, 2012 | **Timor-Leste**[a] replaces East Timor as both a beneficiary developing country and an LDBDC under the GSP program. |
| October 31, 2012 | United States-**Panama** Trade Promotion Agreement Implementation Act enters into force. Panama is also removed as a beneficiary developing country for the GSP program and as a beneficiary country under both CBERA and CBTPA. |

*Source:* USITC, "Change Record," *Harmonized Tariff Schedule of the United States*, various editions.

[a]East Timor changed its name to Timor-Leste in 2002.

**FIGURE ST.3** U.S. imports under the African Growth and Opportunity Act (AGOA), by industry sectors, 2008–12




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

Over the recent five-year period, the United States imported textiles and apparel under AGOA provisions—textiles primarily from South Africa and apparel primarily from Lesotho, followed by Kenya and Swaziland. U.S. AGOA imports of apparel from Swaziland declined each successive year over this period, a reflection of the industry's fragmentation, inadequate transportation infrastructure, inefficient labor markets, and other constraints that hamper textile and apparel production in Swaziland and other SSA countries.[9]

[9] Corcoran, "Investing in Africa's Clothing Industry," May 2013, 3.

## *Andean Trade Preference Act*[10]

Lower U.S. imports recorded under ATPA provisions over the five-year period reflect the decreasing number of eligible beneficiary countries during this time. In 2008, U.S. imports from Bolivia, Columbia, Ecuador, and Peru were all eligible for ATPA preferences; by the end of 2012, Ecuador was the sole remaining eligible beneficiary country (table ST.1). Additionally, the authority to provide preferential treatment under the ATPA program lapsed for eight months in 2011 before being extended in October 2011 retroactively through July 2013. The legislation extending preferential treatment authority allowed importers that paid duties during the lapse to apply for a refund of duties paid,[11] but the lapse in authorization was considered to have discouraged imports during the eight months it was in existence.

During the five-year period, energy-related products led all U.S. imports granted ATPA preference, growing from 76 percent in 2009 to 92 percent by 2012 (figure ST.4). Colombia and Ecuador are major export-oriented producers of crude petroleum.[12]

U.S. imports of agricultural products under ATPA provisions (the second-largest type of import), particularly fresh flowers from Colombia and Ecuador, decreased in 2011, probably due to the eight-month lapse in the ATPA preferential treatment authority that year. U.S. imports of fresh flowers (other than roses) from both Andean countries were also eligible to enter the United States duty-free under the U.S. GSP program (roses were not eligible for duty-free treatment under the GSP program).

Andean countries are endowed with significant mineral resources and have long histories of mining. The notable declines of U.S. imports of minerals and metals under ATPA provisions in 2009 and 2011 partially reflect the suspension of ATPA eligibility for Bolivia, a major producer of silver, and the removal of Peru, a major producer of copper.[13] The lapse in preferential treatment authority under the ATPA during much of 2011 likely played a role in that year's decline as well.

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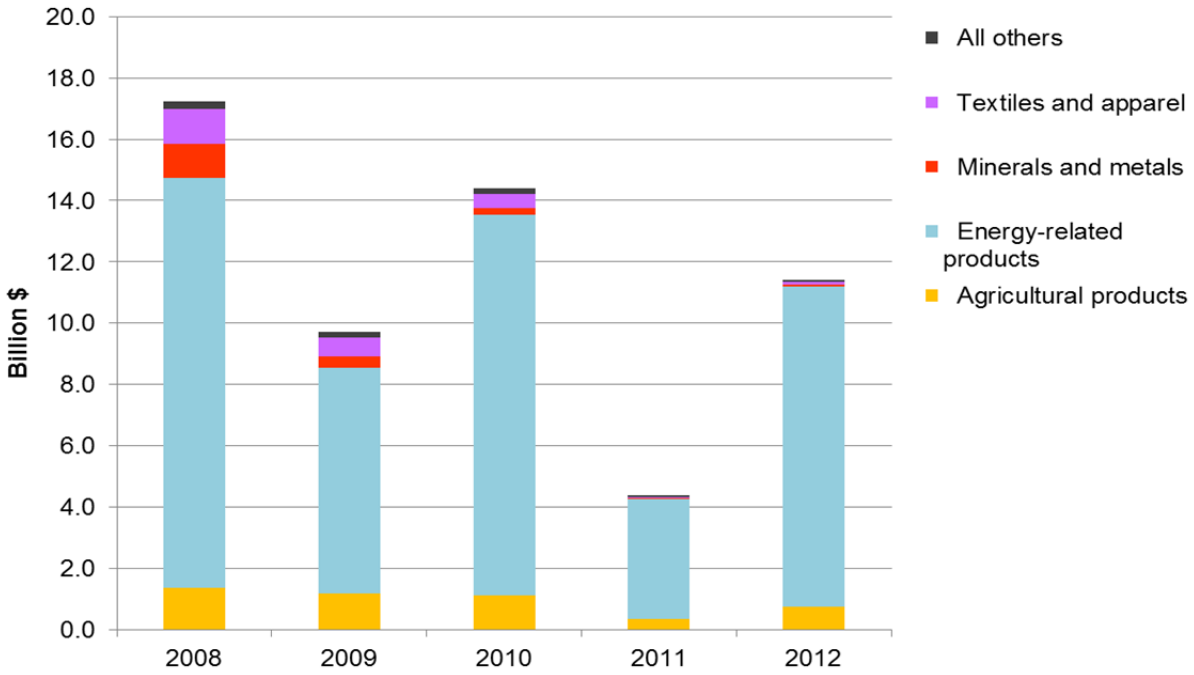
[10] The ATPA was enacted in December 1991 to assist Bolivia, Colombia, Ecuador, and Peru in fighting drug production and trafficking by expanding economic alternatives through duty-free access to the U.S. market for eligible products. The Andean Trade Promotion and Drug Eradication Act (ATPDEA), enacted on August 6, 2002, renewed and amended the ATPA to provide duty-free treatment for certain previously excluded products under the ATPA. Ecuador became the only remaining ATPA/ATPDEA beneficiary country in the second half of 2012, as Bolivia was removed as a beneficiary country on December 15, 2008; Peru was removed as a beneficiary country by statue (see 19 U.S.C. § 3206) on January 1, 2011, after the entry into force of the United States-Peru Trade Promotion Agreement in February 1, 2009; and Colombia was removed as a beneficiary country by statute after the United States-Colombia Trade Promotion Agreement entered into force on May 15, 2012 (see section 201(a)(3) of the United States-Colombia Trade Promotion Agreement Implementation Act, 19 U.S.C. § 3805 note). For further information, see: "Andean Trade Preference Act" in USITC, *The Year in Trade 2012*, July 2013, 2-13 to 2-15; USTR, "Andean Trade Preference Act (ATPA)," n.d. **(**accessed April 25, 2013). Statutory authority for ATPA expired on July 31, 2013 and as of this writing, prospects for its renewal are considered uncertain. See e.g., Alvaro, "Ecuador to Compensate Exporters Hurt by End of U.S. Trade Preferences," July 31, 2013; Gill, "Ecuador Scraps Trade Pact Over U.S. Threats in Snowden Case," Bloomberg, June 27, 2013.

[11] USDHS. USCBP, "ATPA/ATPDEA Extended with Retroactivity," October 26, 2011.

[12] USDOE, EIA, "Colombia," June 2012, and "Ecuador," October 26, 2012.

[13] Anderson, "The Mineral Industry of Bolivia," April 2012; and Gurmendi, "The Mineral Industry of Peru," April 2013.

**FIGURE ST.4** U.S. imports under the Andean Trade Preference Act (ATPA) and the Andean Trade Promotion and Drug Eradication Act (ATPDEA), by industry sectors, 2008–12




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

Similarly, the decline of U.S. imports under ATPA provisions for textiles and apparel in 2011, particularly of apparel, resulted both from the removal of Peru from ATPA eligibility and from the temporary lapse of preferential treatment authority under ATPA that year. During the lapse, apparel imports from Colombia entered at MFN rates of duty with no preferential treatment sought.[14]

[14] As noted above (table ST.1), Colombia was removed as an ATPA beneficiary country by statute following the May 2012 entry into force of the United States-Colombia Trade Promotion Agreement.

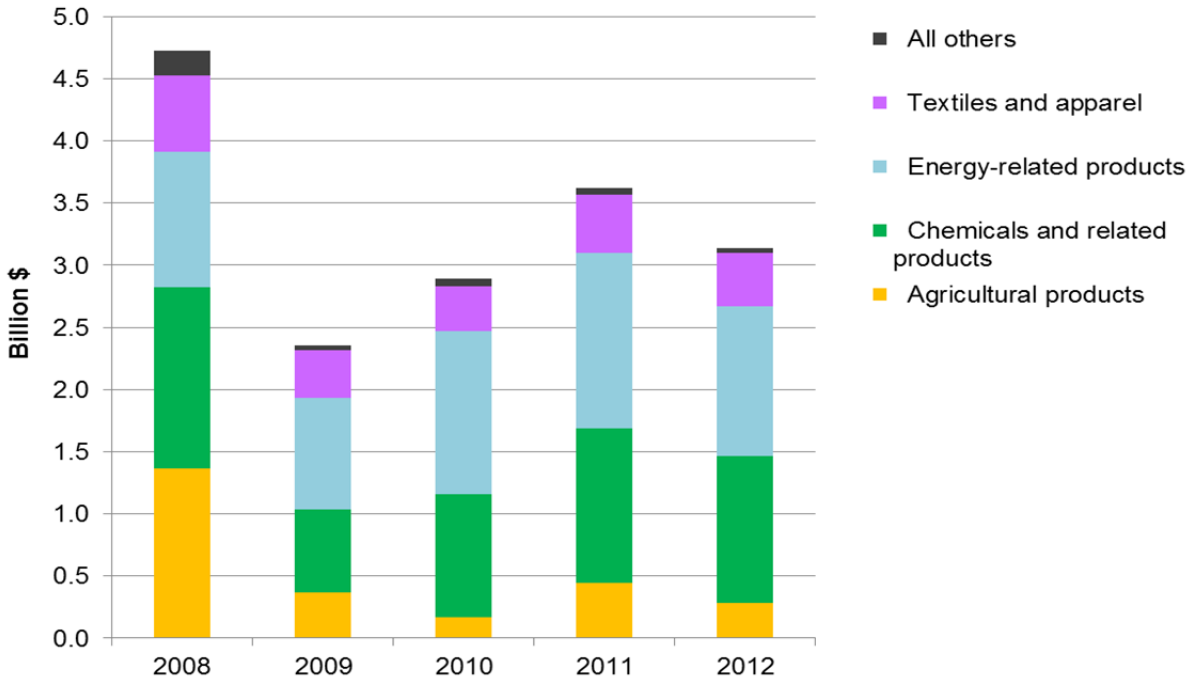
## *Caribbean Basin Initiative*[15]

U.S. imports under the CBI recorded a significant decline from 2008 to 2009, and have fluctuated subsequently (figure ST.5). A major factor influencing decreased U.S. imports under CBI provisions in 2009 was the removal of Costa Rica from eligibility once the Dominican Republic-Central America-United States FTA (CAFTA-DR) entered into force for that trade partner in January 2009. Costa Rica is a major regional producer of textiles and apparel, as well as tropical fruit, which was the leading category for agricultural products imported by the United States from CBI beneficiary countries. Costa Rica is also a source of other types of fresh or processed fruit and vegetables; live plants; cut flowers; beef; and sugar, all of which are now entering under CAFTA-DR rather than CBI.

The leading import sector decrease in 2009 was of certain organic chemicals, primarily from Trinidad and Tobago, in the form of methanol converted from natural-gas liquids production. This decrease was largely attributable to decreased demand in the U.S. market due to the recession. As the largest crude petroleum producer in the Caribbean Basin and the site of a medium-capacity (175,000 barrels per day) petroleum refinery, Trinidad and Tobago was also the predominant source for U.S. imports of energy-related products under CBI provisions, primarily crude petroleum but also certain refined petroleum products. Costa Rica's removal from eligibility for CBI benefits also contributed to decreased U.S. imports of tires, the second-largest product among chemicals and related products imported under CBI provisions in 2009.

[15] The CBI was initiated in 1983, through the Caribbean Basin Economic Recovery Act (CBERA), and was substantially expanded in October 1, 2000, through the U.S.-Caribbean Basin Trade Partnership Act (CBTPA). The CBI is intended to facilitate both economic development and export diversification among Caribbean Basin countries by providing designated beneficiary countries with duty-free access for most CBI-origin goods entering into the U.S. market. The CBTPA remains in effect for individual CBI beneficiary countries either until September 30, 2020, or until a free trade agreement enters into force between the United States and a former CBTPA beneficiary country. When the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR) entered into force for El Salvador on March 1, 2006; for Honduras on April 1, 2006; for Nicaragua on April 1, 2006; for Guatemala on July 1, 2006; for the Dominican Republic on March 1, 2007; and for Costa Rica on January 1, 2009; these CAFTA-DR partners ceased to be designated as CBERA and CBTPA beneficiary countries. Panama ceased to be a designated CBERA beneficiary country when the United States-Panama Trade Promotion Agreement Implementation Act entered into force on October 31, 2012. There are currently 17 CBERA beneficiary countries, of which 7 are also CBTPA beneficiary countries. For further information, see: "Caribbean Basin Economic Recovery Act," in USITC, *The Year in Trade 2012,* July 2013, 2-18 to 2-23; USTR, "Caribbean Basin Initiative (CBI)," n.d. (accessed April 24, 2013).

**FIGURE ST.5** U.S. imports under the Caribbean Basin Initiative (CBI) and the U.S.-Caribbean Basin Trade Partnership Act (CBTPA), by industry sectors, 2008–12




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

## *Generalized System of Preferences*[16]

GSP was the second leading trade preference program (behind AGOA) in terms of the value of U.S. imports during the 2008–12 period. However, authority to provide preferential treatment under the GSP program lapsed for nearly ten months in 2011 before being extended in October 2011 retroactively through July 31, 2013.[17] Although

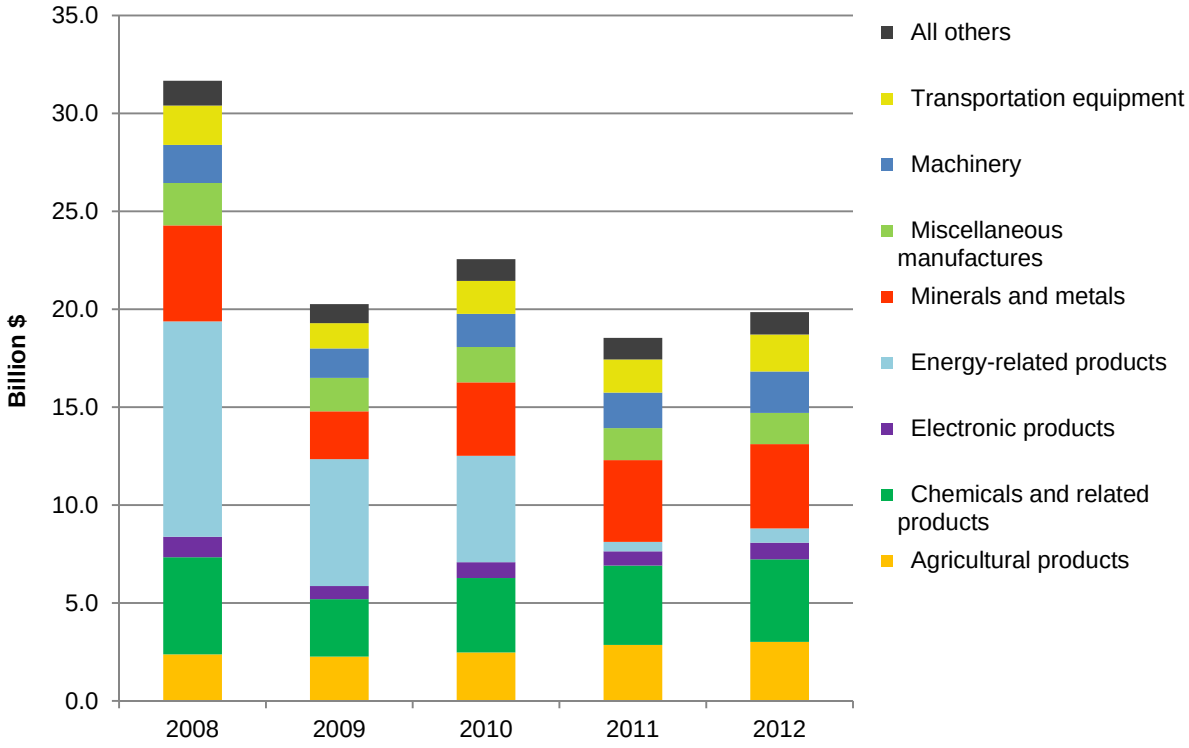
[16] GSP is the oldest U.S. trade preference program. It was initiated on January 1, 1976, by the Trade Act of 1974, to promote economic growth in the developing world. GSP provides preferential duty-free entry for some 3,500 products imported from 127 designated GSP beneficiary countries and territories, including 44 least-developed beneficiary developing countries (LDBDCs). An additional 1,500 products are GSP-eligible only when imported from designated LDBDCs. Products eligible for duty-free treatment under the GSP program include most manufactured items; many types of chemicals, minerals, and building stone; jewelry; many types of carpets; and certain agricultural and fishery products. Ineligible products include most textiles and apparel; watches; and most footwear, handbags, and luggage products. Statutory authority for GSP preferences lapsed on December 31, 2010 and was not renewed until October 21, 2011, when the GSP program was reauthorized through July 31, 2013. For further information, see: "Generalized System of Preferences" in USITC, *The Year in Trade 2012*, July 2013, 2-17 to 2-18; USTR, "Generalized System of Preferences (GSP)," n.d. (accessed May 2, 2013); USTR, *U.S. Generalized System of Preferences (GSP) Guidebook*, December 2012, 3. As of this writing, statutory authority for GSP has again expired but the Administration supports renewal and is working with Congress to extend this program. USTR, "Statement by U.S. Trade Representative Michael Froman on Expiration of the Generalized System of Preferences Program," July 31, 2013; USTR, "GSP Expiration: Frequently Asked Questions," n.d.

[17] USDHS, USCBP, "Generalized System of Preference (GSP) Extended with Retroactivity," October 26, 2011.

the legislation extending preferential treatment authority allowed importers that paid duties during the lapse to apply for a refund of duties paid, the lapse in authorization was considered to have discouraged imports during the ten months it was in existence.

GSP imports were much less concentrated than those of the other programs, with no single industry sector accounting for more than 35 percent of all GSP imports in any year of the recent five-year period (figure ST.6). Energy-related products was the largest industry sector during 2008–10. However, a large decrease was recorded for imports of energy-related products in 2011, due primarily to smaller imported quantities due to reduced domestic consumption and import-offsetting increased domestic production,[18] as well as by the removal from GSP eligibility of Equatorial Guinea, a major producer of crude petroleum since the 1990s.[19]

**FIGURE ST.6** U.S. imports under the Generalized System of Preferences (GSP) and the GSP-Least-Developed Beneficiary Developing Countries (LDBDCs) programs, by industry sectors, 2008–12




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

[18] Derived from official statistics of the U.S. Department of Energy. See also the "Energy-related Products" chapter of this publication.

[19] USDOE, EIA, "Equatorial Guinea," February 28, 2012.

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# APPENDIX A
# DEFINITION OF COUNTRY GROUPS

## ASEAN (ASSOCIATION OF SOUTHEAST ASIAN NATIONS)

Brunei
Burma (Myanmar)
Cambodia
Indonesia
Laos
Malaysia
Philippines
Singapore
Thailand
Vietnam

## ASIA

Afghanistan
Bangladesh
Bhutan
Brunei
Burma (Myanmar)
Cambodia
China
Hong Kong
India
Indonesia
Japan
Korea
Laos
Macao
Malaysia
Maldive Is
Mongolia
Nepal
North Korea
Pakistan
Philippines
Singapore
Sri Lanka
Taiwan
Thailand
Vietnam

## CBERA (CARRIBEAN BASIN ECONOMIC RECOVERY ACT) BENEFICIARIES

Antigua Barbuda
Aruba
Bahamas
Barbados
Belize
British Virgin Islands
Dominica
Grenada
Guyana
Haiti
Jamaica
Montserrat
Netherlands Antilles
Panama
St. Kitts-Nevis
St. Lucia Is
St. Vincent and the Grenadines
Trinidad and Tobago

## CENTRAL AND EASTERN EUROPE

Albania
Bosnia-Hercegovina
Bulgaria
Croatia
Czech Republic
Hungary
Macedonia
Montenegro
Poland
Romania
Serbia
Slovak Republic
Slovenia

## EU-27 (EUROPEAN UNION)

Austria
Belgium
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Poland
Portugal
Slovak Republic
Slovenia
Spain
Sweden
United Kingdom

## LATIN AMERICA

Anguilla
Antigua Barbuda
Argentina
Aruba
Bahamas
Barbados
Belize
Bermuda
Bolivia
British Virgin Islands
Brazil
Cayman Island
Chile
Colombia
Costa Rica
Cuba
Dominica Island
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guiana
Grenada
Guadeloupe
Guatemala
Guyana
Haiti
Honduras
Jamaica
Martinique
Mexico
Montserrat
Netherlands Antilles
Nicaragua
Panama
Paraguay
Peru
St. Kitts-Nevis
St. Lucia
St. Pierre & Miquelon
St. Vincent & Grenadines
Suriname
Trinidad & Tobago
Turks & Caicos Islands
Uruguay
Venezuela

## NAFTA (NORTH AMERICAN FREE TRADE AGREEMENT)

Canada
Mexico
United States

## OPEC (ORGANIZATION OF PETROLEUM EXPORTING COUNTRIES)

Algeria
Angola
Ecuador
Iran
Iraq
Kuwait
Libya
Nigeria
Qatar
Saudi Arabia
United Arab Emirates
Venezuela

## SUB-SAHARAN AFRICA

Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Cen African Rep
Chad
Comoros
Democratic Republic of the Congo
(Congo-Kinshasa)
Republic of the Congo
(Congo-Brazzaville)
Côte d`Ivoire
Djibouti
Eq Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
Rwanda
São Tomé & Príncipe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Sudan
Swaziland
Tanzania
Togo
Uganda
Zambia
Zimbabwe

# APPENDIX B
# U.S. TRADE BY INDUSTRY GROUP AND SUBGROUP

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG001 | Certain miscellaneous animals and meats: | | | | | | | |
| | Exports | 2,497 | 2,308 | 2,500 | 2,916 | 2,808 | –108 | –3.7 |
| | Imports | 2,054 | 1,747 | 1,738 | 2,020 | 2,099 | 79 | 3.9 |
| | Trade balance | 443 | 561 | 762 | 896 | 709 | –187 | –20.9 |
| AG002 | Cattle and beef: | | | | | | | |
| | Exports | 3,085 | 2,817 | 3,873 | 5,222 | 5,627 | 404 | 7.7 |
| | Imports | 4,524 | 3,784 | 4,314 | 4,457 | 5,353 | 897 | 20.1 |
| | Trade balance | –1,439 | –967 | –442 | 766 | 273 | –492 | –64.3 |
| AG003 | Swine and pork: | | | | | | | |
| | Exports | 4,278 | 3,645 | 4,003 | 5,263 | 5,498 | 235 | 4.5 |
| | Imports | 1,246 | 1,020 | 1,292 | 1,367 | 1,354 | –13 | –1.0 |
| | Trade balance | 3,032 | 2,625 | 2,711 | 3,895 | 4,144 | 248 | 6.4 |
| AG004 | Sheep and meat of sheep: | | | | | | | |
| | Exports | 35 | 34 | 28 | 27 | 20 | –7 | –25.1 |
| | Imports | 446 | 434 | 512 | 659 | 552 | –107 | –16.2 |
| | Trade balance | –410 | –400 | –484 | –632 | –532 | 100 | 15.8 |
| AG005 | Poultry: | | | | | | | |
| | Exports | 4,607 | 4,297 | 4,298 | 5,009 | 5,535 | 526 | 10.5 |
| | Imports | 256 | 263 | 301 | 310 | 373 | 63 | 20.3 |
| | Trade balance | 4,351 | 4,034 | 3,997 | 4,699 | 5,162 | 463 | 9.9 |
| AG006 | Fresh or frozen fish: | | | | | | | |
| | Exports | 2,576 | 2,326 | 2,649 | 3,343 | 3,185 | –158 | –4.7 |
| | Imports | 5,021 | 4,880 | 5,432 | 5,981 | 6,396 | 415 | 6.9 |
| | Trade balance | –2,444 | –2,554 | –2,783 | –2,638 | –3,211 | –573 | –21.7 |
| AG007 | Canned fish: | | | | | | | |
| | Exports | 268 | 251 | 234 | 264 | 269 | 5 | 1.9 |
| | Imports | 1,130 | 1,090 | 1,215 | 1,334 | 1,557 | 223 | 16.7 |
| | Trade balance | –862 | –839 | –981 | –1,069 | –1,287 | –218 | –20.4 |
| AG008 | Cured and other fish: | | | | | | | |
| | Exports | 187 | 194 | 229 | 243 | 273 | 31 | 12.6 |
| | Imports | 456 | 443 | 468 | 518 | 548 | 30 | 5.7 |
| | Trade balance | –269 | –249 | –239 | –275 | –274 | 1 | 0.3 |
| AG009 | Shellfish: | | | | | | | |
| | Exports | 1,013 | 1,035 | 1,179 | 1,489 | 1,501 | 12 | 0.8 |
| | Imports | 7,379 | 6,587 | 7,469 | 8,704 | 8,055 | –649 | –7.5 |
| | Trade balance | –6,366 | –5,552 | –6,290 | –7,215 | –6,555 | 661 | 9.2 |
| AG010 | Dairy produce: | | | | | | | |
| | Exports | 3,493 | 2,020 | 3,441 | 4,490 | 4,810 | 320 | 7.1 |
| | Imports | 2,533 | 1,977 | 1,984 | 2,277 | 2,503 | 226 | 9.9 |
| | Trade balance | 960 | 43 | 1,457 | 2,213 | 2,307 | 94 | 4.2 |
| AG011 | Eggs: | | | | | | | |
| | Exports | 297 | 347 | 358 | 408 | 483 | 75 | 18.3 |
| | Imports | 47 | 30 | 40 | 42 | 43 | 1 | 2.6 |
| | Trade balance | 250 | 317 | 319 | 366 | 440 | 74 | 20.1 |



See footnote(s) at end of table.

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG012 | Sugar and other sweeteners: | | | | | | | |
| | Exports | 748 | 687 | 1,101 | 1,334 | 1,484 | 150 | 11.3 |
| | Imports | 1,734 | 1,905 | 2,744 | 3,734 | 3,311 | –423 | –11.3 |
| | Trade balance | –986 | –1,218 | –1,643 | –2,400 | –1,827 | 573 | 23.9 |
| AG012A | Sugar: | | | | | | | |
| | Exports | 175 | 137 | 231 | 273 | 259 | –14 | –5.1 |
| | Imports | 1,117 | 1,246 | 2,046 | 2,867 | 2,351 | –516 | –18.0 |
| | Trade balance | –943 | –1,109 | –1,815 | –2,594 | –2,092 | 502 | 19.3 |
| AG012B | High fructose corn sweetener: | | | | | | | |
| | Exports | 254 | 257 | 511 | 597 | 784 | 187 | 31.3 |
| | Imports | 82 | 92 | 104 | 108 | 120 | 12 | 11.0 |
| | Trade balance | 172 | 165 | 407 | 489 | 664 | 175 | 35.8 |
| AG013 | Animal feeds: | | | | | | | |
| | Exports | 8,467 | 8,498 | 9,677 | 10,103 | 12,476 | 2,372 | 23.5 |
| | Imports | 1,375 | 1,290 | 1,472 | 2,067 | 2,671 | 603 | 29.2 |
| | Trade balance | 7,092 | 7,208 | 8,204 | 8,036 | 9,805 | 1,769 | 22.0 |
| AG014 | Live plants: | | | | | | | |
| | Exports | 198 | 190 | 197 | 208 | 218 | 10 | 4.8 |
| | Imports | 540 | 487 | 524 | 549 | 525 | –24 | –4.4 |
| | Trade balance | –342 | –297 | –327 | –341 | –307 | 34 | 10.1 |
| AG015 | Seeds: | | | | | | | |
| | Exports | 1,348 | 1,190 | 1,292 | 1,460 | 1,559 | 99 | 6.8 |
| | Imports | 786 | 792 | 813 | 941 | 1,302 | 361 | 38.4 |
| | Trade balance | 562 | 398 | 479 | 519 | 257 | –263 | –50.6 |
| AG015A | Grass Seed: | | | | | | | |
| | Exports | 378 | 315 | 357 | 454 | 447 | –7 | –1.5 |
| | Imports | 192 | 141 | 124 | 142 | 164 | 21 | 15.1 |
| | Trade balance | 186 | 173 | 234 | 312 | 284 | –28 | –9.0 |
| AG015B | Fruit Seed: | | | | | | | |
| | Exports | 46 | 51 | 55 | 66 | 53 | –14 | –20.6 |
| | Imports | 47 | 41 | 46 | 56 | 66 | 10 | 17.5 |
| | Trade balance | –1 | 10 | 8 | 10 | –13 | –24 | [a] |
| AG015C | Vegetable Seeds: | | | | | | | |
| | Exports | 394 | 457 | 490 | 519 | 495 | –24 | –4.6 |
| | Imports | 233 | 309 | 340 | 409 | 495 | 86 | 21.0 |
| | Trade balance | 162 | 148 | 150 | 110 | [b] | –110 | –99.8 |
| AG015D | Grain Seeds: | | | | | | | |
| | Exports | 373 | 255 | 235 | 275 | 343 | 68 | 24.9 |
| | Imports | 281 | 253 | 240 | 262 | 469 | 207 | 78.8 |
| | Trade balance | 93 | 1 | –5 | 12 | –126 | –138 | [a] |
| AG015E | Sugar Beet Seed: | | | | | | | |
| | Exports | 3 | 4 | 4 | 5 | 5 | [b] | 9.7 |
| | Imports | 1 | [b] | 1 | 5 | [b] | –4 | –90.3 |
| | Trade balance | 3 | 3 | 4 | [b] | 5 | 5 | 4,927.9 |



See footnote(s) at end of table.

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG015F | Oilseed Seeds: | | | | | | | |
| | Exports | 151 | 107 | 148 | 139 | 213 | 74 | 53.4 |
| | Imports | 33 | 46 | 62 | 65 | 106 | 40 | 62.0 |
| | Trade balance | 118 | 61 | 86 | 73 | 107 | 34 | 45.8 |
| AG015G | Tobacco Seeds: | | | | | | | |
| | Exports | 2 | 2 | 2 | 2 | 2 | (b) | –7.5 |
| | Imports | (b) | 1 | (b) | 1 | 2 | 1 | 170.5 |
| | Trade balance | 2 | 2 | 2 | 1 | (b) | –1 | –84.7 |
| AG016 | Cut flowers: | | | | | | | |
| | Exports | 42 | 39 | 37 | 33 | 26 | –7 | –20.5 |
| | Imports | 804 | 768 | 847 | 881 | 968 | 87 | 9.9 |
| | Trade balance | –762 | –728 | –810 | –848 | –942 | –94 | –11.1 |
| AG017 | Miscellaneous vegetable substances: | | | | | | | |
| | Exports | 786 | 822 | 872 | 902 | 1,007 | 105 | 11.7 |
| | Imports | 1,407 | 1,280 | 1,465 | 2,349 | 5,042 | 2,693 | 114.7 |
| | Trade balance | –622 | –458 | –593 | –1,447 | –4,035 | –2,588 | –178.9 |
| AG018 | Fresh, chilled, or frozen vegetables: | | | | | | | |
| | Exports | 2,070 | 2,005 | 2,179 | 2,338 | 2,265 | –73 | –3.1 |
| | Imports | 5,003 | 4,800 | 5,846 | 6,490 | 6,513 | 23 | 0.4 |
| | Trade balance | –2,933 | –2,796 | –3,668 | –4,151 | –4,247 | –96 | –2.3 |
| AG019 | Prepared or preserved vegetables, mushrooms, and olives: | | | | | | | |
| | Exports | 2,523 | 2,446 | 2,567 | 2,794 | 3,197 | 403 | 14.4 |
| | Imports | 2,813 | 2,736 | 2,894 | 3,199 | 3,430 | 231 | 7.2 |
| | Trade balance | –289 | –290 | –327 | –405 | –233 | 172 | 42.4 |
| AG020 | Edible nuts: | | | | | | | |
| | Exports | 3,742 | 4,024 | 4,756 | 5,679 | 6,870 | 1,191 | 21.0 |
| | Imports | 1,351 | 1,275 | 1,463 | 1,865 | 1,998 | 133 | 7.1 |
| | Trade balance | 2,391 | 2,749 | 3,293 | 3,815 | 4,872 | 1,057 | 27.7 |
| AG021 | Tropical fruit: | | | | | | | |
| | Exports | 77 | 70 | 101 | 107 | 153 | 46 | 42.9 |
| | Imports | 2,761 | 3,130 | 3,301 | 3,836 | 3,974 | 138 | 3.6 |
| | Trade balance | –2,684 | –3,060 | –3,201 | –3,729 | –3,821 | –92 | –2.5 |
| AG022 | Citrus fruit: | | | | | | | |
| | Exports | 874 | 832 | 998 | 1,115 | 1,136 | 21 | 1.9 |
| | Imports | 689 | 683 | 776 | 838 | 862 | 24 | 2.9 |
| | Trade balance | 185 | 149 | 222 | 277 | 274 | –3 | –1.0 |
| AG023 | Deciduous fruit: | | | | | | | |
| | Exports | 1,422 | 1,396 | 1,550 | 1,771 | 2,040 | 269 | 15.2 |
| | Imports | 448 | 372 | 424 | 392 | 373 | –19 | –4.9 |
| | Trade balance | 974 | 1,024 | 1,126 | 1,379 | 1,667 | 288 | 20.9 |



See footnote(s) at end of table.

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG024 | Other fresh fruit: | | | | | | | |
| | Exports | 1,346 | 1,326 | 1,435 | 1,640 | 1,782 | 142 | 8.6 |
| | Imports | 2,121 | 2,302 | 2,803 | 2,659 | 2,941 | 282 | 10.6 |
| | Trade balance | –775 | –976 | –1,368 | –1,019 | –1,160 | –141 | –13.8 |
| AG025 | Dried fruit other than tropical: | | | | | | | |
| | Exports | 589 | 533 | 608 | 710 | 689 | –20 | –2.9 |
| | Imports | 191 | 180 | 183 | 207 | 218 | 11 | 5.3 |
| | Trade balance | 398 | 353 | 426 | 503 | 471 | –31 | –6.2 |
| AG026 | Frozen fruit: | | | | | | | |
| | Exports | 143 | 130 | 148 | 191 | 210 | 19 | 9.9 |
| | Imports | 444 | 348 | 393 | 526 | 624 | 98 | 18.6 |
| | Trade balance | –300 | –218 | –244 | –335 | –414 | –79 | –23.6 |
| AG027 | Prepared or preserved fruit: | | | | | | | |
| | Exports | 387 | 365 | 412 | 515 | 522 | 7 | 1.4 |
| | Imports | 1,263 | 1,213 | 1,320 | 1,523 | 1,631 | 108 | 7.1 |
| | Trade balance | –876 | –848 | –909 | –1,008 | –1,109 | –101 | –10.1 |
| AG028 | Coffee and tea: | | | | | | | |
| | Exports | 807 | 819 | 945 | 1,206 | 1,352 | 146 | 12.1 |
| | Imports | 4,855 | 4,509 | 5,469 | 8,666 | 7,618 | –1,048 | –12.1 |
| | Trade balance | –4,048 | –3,690 | –4,524 | –7,460 | –6,266 | 1,194 | 16.0 |
| AG029 | Spices: | | | | | | | |
| | Exports | 110 | 117 | 122 | 131 | 148 | 17 | 13.0 |
| | Imports | 819 | 729 | 872 | 1,124 | 1,197 | 73 | 6.5 |
| | Trade balance | –709 | –612 | –750 | –992 | –1,048 | –56 | –5.7 |
| AG030 | Cereals: | | | | | | | |
| | Exports | 28,625 | 17,240 | 19,930 | 28,110 | 20,347 | –7,763 | –27.6 |
| | Imports | 2,496 | 1,808 | 1,610 | 1,930 | 2,637 | 708 | 36.7 |
| | Trade balance | 26,129 | 15,432 | 18,320 | 26,180 | 17,709 | –8,471 | –32.4 |
| AG031 | Milled grains, malts, and starches: | | | | | | | |
| | Exports | 840 | 824 | 736 | 769 | 817 | 48 | 6.3 |
| | Imports | 1,077 | 957 | 982 | 1,089 | 1,114 | 25 | 2.3 |
| | Trade balance | –237 | –132 | –246 | –319 | –297 | 23 | 7.2 |
| AG032 | Oilseeds: | | | | | | | |
| | Exports | 15,853 | 16,780 | 18,936 | 17,875 | 25,040 | 7,165 | 40.1 |
| | Imports | 1,002 | 668 | 647 | 870 | 843 | –28 | –3.2 |
| | Trade balance | 14,851 | 16,112 | 18,289 | 17,005 | 24,197 | 7,192 | 42.3 |
| AG033 | Animal or vegetable fats and oils: | | | | | | | |
| | Exports | 4,475 | 3,354 | 4,484 | 4,729 | 4,433 | –296 | –6.3 |
| | Imports | 5,261 | 3,779 | 4,306 | 6,558 | 5,965 | –593 | –9.0 |
| | Trade balance | –786 | –425 | 177 | –1,829 | –1,532 | 297 | 16.2 |
| AG034 | Pasta, cereals, and other bakery goods: | | | | | | | |
| | Exports | 2,398 | 2,489 | 2,708 | 3,024 | 3,382 | 358 | 11.8 |
| | Imports | 4,011 | 3,971 | 4,415 | 4,888 | 5,127 | 240 | 4.9 |
| | Trade balance | –1,614 | –1,482 | –1,706 | –1,863 | –1,745 | 118 | 6.3 |



See footnote(s) at end of table.

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG035 | Sauces, condiments, and soups: | | | | | | | |
| | Exports | 1,178 | 1,172 | 1,285 | 1,412 | 1,575 | 163 | 11.5 |
| | Imports | 1,027 | 964 | 1,030 | 1,156 | 1,229 | 73 | 6.3 |
| | Trade balance | 150 | 208 | 255 | 256 | 345 | 89 | 35.0 |
| AG036 | Infant formulas, malt extracts, and other edible preparations: | | | | | | | |
| | Exports | 3,879 | 3,786 | 4,174 | 4,815 | 5,415 | 600 | 12.5 |
| | Imports | 1,618 | 1,615 | 1,930 | 2,109 | 2,267 | 159 | 7.5 |
| | Trade balance | 2,262 | 2,171 | 2,244 | 2,706 | 3,148 | 442 | 16.3 |
| AG037 | Cocoa, chocolate, and confectionery: | | | | | | | |
| | Exports | 1,396 | 1,384 | 1,530 | 1,799 | 1,976 | 176 | 9.8 |
| | Imports | 4,534 | 4,659 | 5,599 | 6,096 | 5,578 | –518 | –8.5 |
| | Trade balance | –3,138 | –3,275 | –4,069 | –4,296 | –3,602 | 694 | 16.2 |
| AG038 | Fruit and vegetable juices: | | | | | | | |
| | Exports | 1,061 | 990 | 1,084 | 1,247 | 1,212 | –35 | –2.8 |
| | Imports | 1,925 | 1,357 | 1,402 | 1,944 | 1,844 | –100 | –5.2 |
| | Trade balance | –864 | –367 | –317 | –697 | –632 | 65 | 9.3 |
| AG039 | Nonalcoholic beverages, excluding fruit and vegetable juices: | | | | | | | |
| | Exports | 819 | 887 | 886 | 1,024 | 1,169 | 145 | 14.1 |
| | Imports | 1,875 | 1,626 | 1,789 | 2,030 | 2,406 | 376 | 18.5 |
| | Trade balance | –1,056 | –739 | –902 | –1,006 | –1,237 | –231 | –23.0 |
| AG040 | Malt beverages: | | | | | | | |
| | Exports | 275 | 306 | 327 | 365 | 446 | 82 | 22.5 |
| | Imports | 3,648 | 3,325 | 3,493 | 3,551 | 3,683 | 132 | 3.7 |
| | Trade balance | –3,372 | –3,020 | –3,166 | –3,187 | –3,236 | –50 | –1.6 |
| AG041 | Wine and certain other fermented beverages: | | | | | | | |
| | Exports | 964 | 860 | 1,064 | 1,293 | 1,336 | 43 | 3.3 |
| | Imports | 4,655 | 4,039 | 4,306 | 4,901 | 5,151 | 250 | 5.1 |
| | Trade balance | –3,691 | –3,180 | –3,242 | –3,608 | –3,816 | –207 | –5.7 |
| AG042 | Distilled spirits: | | | | | | | |
| | Exports | 1,102 | 1,051 | 1,175 | 1,361 | 1,501 | 141 | 10.3 |
| | Imports | 5,061 | 4,810 | 5,218 | 5,770 | 6,067 | 297 | 5.1 |
| | Trade balance | –3,959 | –3,759 | –4,042 | –4,409 | –4,566 | –156 | –3.5 |
| AG043 | Unmanufactured tobacco: | | | | | | | |
| | Exports | 1,238 | 1,160 | 1,167 | 1,149 | 1,098 | –51 | –4.4 |
| | Imports | 804 | 900 | 720 | 737 | 885 | 147 | 20.0 |
| | Trade balance | 435 | 260 | 447 | 412 | 213 | –198 | –48.2 |
| AG044 | Cigars and certain other manufactured tobacco: | | | | | | | |
| | Exports | 118 | 76 | 83 | 105 | 166 | 60 | 57.0 |
| | Imports | 465 | 475 | 532 | 590 | 673 | 83 | 14.1 |
| | Trade balance | –347 | –399 | –450 | –484 | –508 | –23 | –4.8 |



See footnote(s) at end of table.

**APPENDIX TABLE B.1 Agricultural products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| AG045 | Cigarettes: | | | | | | | |
| | Exports | 705 | 414 | 371 | 383 | 317 | –67 | –17.4 |
| | Imports | 165 | 156 | 137 | 125 | 137 | 12 | 9.8 |
| | Trade balance | 540 | 258 | 234 | 258 | 179 | –79 | –30.5 |
| AG046 | Hides, skins, and leather: | | | | | | | |
| | Exports | 2,607 | 1,812 | 2,827 | 3,248 | 3,156 | –92 | –2.8 |
| | Imports | 688 | 450 | 593 | 609 | 674 | 66 | 10.8 |
| | Trade balance | 1,919 | 1,362 | 2,233 | 2,639 | 2,482 | –158 | –6.0 |
| AG047 | Furskins: | | | | | | | |
| | Exports | 300 | 182 | 265 | 397 | 575 | 178 | 44.8 |
| | Imports | 129 | 102 | 142 | 166 | 207 | 40 | 24.1 |
| | Trade balance | 170 | 80 | 123 | 230 | 368 | 138 | 59.8 |
| AG048 | Wool and other animal hair: | | | | | | | |
| | Exports | 24 | 21 | 24 | 24 | 18 | –6 | –23.6 |
| | Imports | 37 | 20 | 20 | 35 | 34 | –1 | –2.5 |
| | Trade balance | –13 | 2 | 3 | –11 | –16 | –5 | –41.5 |
| AG049 | Cotton, not carded or combed: | | | | | | | |
| | Exports | 4,829 | 3,384 | 5,746 | 8,424 | 6,246 | –2,178 | –25.9 |
| | Imports | 5 | ([b]) | 1 | 16 | 7 | –9 | –57.8 |
| | Trade balance | 4,825 | 3,384 | 5,744 | 8,408 | 6,239 | –2,169 | –25.8 |
| AG050 | Ethyl alcohol for nonbeverage purposes: | | | | | | | |
| | Exports | 374 | 245 | 883 | 3,260 | 1,927 | –1,333 | –40.9 |
| | Imports | 1,260 | 564 | 326 | 903 | 1,839 | 937 | 103.8 |
| | Trade balance | –886 | –318 | 556 | 2,357 | 87 | –2,270 | –96.3 |

*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.

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

**APPENDIX TABLE B.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| CH001 | Major primary olefins: | | | | | | | |
| | Exports | 685 | 439 | 587 | 887 | 620 | –267 | –30.1 |
| | Imports | 12,812 | 5,931 | 10,496 | 13,079 | 11,148 | –1,931 | –14.8 |
| | Trade balance | –12,127 | –5,493 | –9,909 | –12,192 | –10,527 | 1,664 | 13.7 |
| CH002 | Other olefins: | | | | | | | |
| | Exports | 615 | 430 | 623 | 676 | 629 | –47 | –7.0 |
| | Imports | 506 | 375 | 473 | 630 | 696 | 66 | 10.5 |
| | Trade balance | 110 | 56 | 150 | 47 | –67 | –114 | (a) |
| CH003 | Primary aromatics: | | | | | | | |
| | Exports | 478 | 531 | 816 | 1,161 | 1,053 | –108 | –9.3 |
| | Imports | 4,004 | 2,054 | 2,992 | 3,951 | 4,524 | 573 | 14.5 |
| | Trade balance | –3,527 | –1,523 | –2,176 | –2,790 | –3,472 | –682 | –24.4 |
| CH004 | Organic commodity chemicals: | | | | | | | |
| | Exports | 4,845 | 3,633 | 5,073 | 6,047 | 6,499 | 452 | 7.5 |
| | Imports | 3,691 | 2,104 | 3,139 | 3,811 | 3,414 | –397 | –10.4 |
| | Trade balance | 1,155 | 1,529 | 1,935 | 2,236 | 3,085 | 849 | 38.0 |
| CH005 | Organic specialty chemicals: | | | | | | | |
| | Exports | 8,805 | 6,956 | 9,739 | 9,449 | 9,396 | –53 | –0.6 |
| | Imports | 9,324 | 7,805 | 8,580 | 10,620 | 11,111 | 491 | 4.6 |
| | Trade balance | –520 | –849 | 1,160 | –1,171 | –1,714 | –544 | –46.4 |
| CH006 | Certain organic chemicals: | | | | | | | |
| | Exports | 16,360 | 13,339 | 17,679 | 20,754 | 20,315 | –439 | –2.1 |
| | Imports | 9,184 | 6,663 | 9,072 | 11,261 | 10,659 | –602 | –5.3 |
| | Trade balance | 7,176 | 6,675 | 8,607 | 9,493 | 9,656 | 163 | 1.7 |
| CH007 | Miscellaneous inorganic chemicals: | | | | | | | |
| | Exports | 11,674 | 9,059 | 11,379 | 12,613 | 12,822 | 209 | 1.7 |
| | Imports | 9,279 | 6,388 | 8,314 | 11,000 | 10,218 | –782 | –7.1 |
| | Trade balance | 2,395 | 2,671 | 3,066 | 1,613 | 2,604 | 991 | 61.5 |
| CH008 | Inorganic acids: | | | | | | | |
| | Exports | 852 | 535 | 657 | 909 | 849 | –61 | –6.7 |
| | Imports | 907 | 496 | 529 | 679 | 735 | 56 | 8.2 |
| | Trade balance | –55 | 38 | 128 | 230 | 113 | –117 | –50.7 |
| CH009 | Chlor–alkali chemicals: | | | | | | | |
| | Exports | 2,044 | 1,601 | 1,583 | 2,123 | 2,393 | 269 | 12.7 |
| | Imports | 646 | 453 | 355 | 487 | 405 | –82 | –16.8 |
| | Trade balance | 1,398 | 1,149 | 1,228 | 1,637 | 1,988 | 351 | 21.4 |
| CH010 | Fertilizers: | | | | | | | |
| | Exports | 7,171 | 3,684 | 3,941 | 5,429 | 4,984 | –444 | –8.2 |
| | Imports | 16,485 | 7,373 | 11,801 | 16,763 | 16,791 | 28 | 0.2 |
| | Trade balance | –9,314 | –3,689 | –7,860 | –11,334 | –11,807 | –472 | –4.2 |
| CH011 | Paints, inks, and related items, and certain components thereof: | | | | | | | |
| | Exports | 5,914 | 5,195 | 6,937 | 8,185 | 7,542 | –643 | –7.9 |
| | Imports | 2,748 | 2,151 | 2,744 | 3,168 | 3,377 | 209 | 6.6 |
| | Trade balance | 3,166 | 3,044 | 4,193 | 5,017 | 4,165 | –852 | –17.0 |

See footnote(s) at end of table.

**APPENDIX TABLE B.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| CH012 | Synthetic organic pigments: | | | | | | | |
| | Exports | 452 | 329 | 445 | 425 | 375 | –50 | –11.8 |
| | Imports | 477 | 330 | 494 | 526 | 530 | 4 | 0.7 |
| | Trade balance | –26 | –1 | –48 | –101 | –155 | –54 | –53.5 |
| CH013 | Synthetic dyes and azoic couplers: | | | | | | | |
| | Exports | 321 | 300 | 379 | 414 | 391 | –23 | –5.5 |
| | Imports | 367 | 260 | 380 | 367 | 390 | 23 | 6.3 |
| | Trade balance | –47 | 40 | –1 | 47 | 1 | –46 | –97.5 |
| CH014 | Synthetic tanning agents: | | | | | | | |
| | Exports | 21 | 19 | 24 | 22 | 23 | 1 | 5.8 |
| | Imports | 9 | 6 | 8 | 9 | 9 | ([b]) | 2.2 |
| | Trade balance | 12 | 13 | 16 | 13 | 14 | 1 | 8.2 |
| CH015 | Natural tanning and dyeing materials: | | | | | | | |
| | Exports | 78 | 67 | 78 | 81 | 88 | 7 | 9.0 |
| | Imports | 109 | 122 | 138 | 146 | 186 | 40 | 27.2 |
| | Trade balance | –32 | –55 | –60 | –65 | –98 | –32 | –49.7 |
| CH016 | Photographic chemicals and preparations: | | | | | | | |
| | Exports | 693 | 610 | 803 | 693 | 700 | 7 | 1.0 |
| | Imports | 451 | 343 | 394 | 402 | 359 | –43 | –10.8 |
| | Trade balance | 243 | 267 | 409 | 291 | 341 | 50 | 17.3 |
| CH017 | Pesticide products and formulations: | | | | | | | |
| | Exports | 3,773 | 3,737 | 4,507 | 4,310 | 4,604 | 294 | 6.8 |
| | Imports | 2,354 | 2,249 | 2,169 | 2,946 | 3,396 | 449 | 15.3 |
| | Trade balance | 1,419 | 1,488 | 2,338 | 1,364 | 1,208 | –156 | –11.4 |
| CH018 | Adhesives and glues: | | | | | | | |
| | Exports | 1,119 | 997 | 1,257 | 1,333 | 1,386 | 53 | 4.0 |
| | Imports | 358 | 276 | 315 | 332 | 356 | 24 | 7.3 |
| | Trade balance | 762 | 721 | 942 | 1,002 | 1,031 | 29 | 2.9 |
| CH019 | Medicinal chemicals: | | | | | | | |
| | Exports | 42,146 | 46,359 | 47,304 | 45,928 | 48,673 | 2,746 | 6.0 |
| | Imports | 79,943 | 82,417 | 86,603 | 92,732 | 88,771 | –3,961 | –4.3 |
| | Trade balance | –37,797 | –36,057 | –39,299 | –46,805 | –40,098 | 6,707 | 14.3 |
| CH020 | Essential oils and other flavoring materials: | | | | | | | |
| | Exports | 1,813 | 1,816 | 2,055 | 2,216 | 2,355 | 139 | 6.3 |
| | Imports | 3,400 | 2,940 | 3,141 | 3,395 | 3,376 | –19 | –0.6 |
| | Trade balance | –1,587 | –1,124 | –1,085 | –1,180 | –1,021 | 159 | 13.5 |
| CH021 | Perfumes, cosmetics, and toiletries: | | | | | | | |
| | Exports | 6,271 | 5,911 | 6,600 | 6,892 | 7,495 | 603 | 8.8 |
| | Imports | 5,221 | 4,738 | 5,492 | 6,237 | 6,864 | 627 | 10.1 |
| | Trade balance | 1,050 | 1,173 | 1,108 | 655 | 631 | –24 | –3.7 |
| CH022 | Soaps, detergents, and surface–active agents: | | | | | | | |
| | Exports | 4,660 | 4,409 | 5,115 | 5,566 | 5,809 | 243 | 4.4 |
| | Imports | 2,025 | 1,737 | 2,026 | 2,269 | 2,480 | 211 | 9.3 |
| | Trade balance | 2,635 | 2,672 | 3,089 | 3,298 | 3,329 | 31 | 0.9 |

See footnote(s) at end of table.

**APPENDIX TABLE B.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| CH023 | Miscellaneous chemicals and specialties: | | | | | | | |
| | Exports | 7,854 | 5,155 | 5,730 | 6,777 | 6,844 | 66 | 1.0 |
| | Imports | 5,315 | 3,507 | 4,310 | 5,202 | 4,997 | –206 | –4.0 |
| | Trade balance | 2,539 | 1,648 | 1,420 | 1,575 | 1,847 | 272 | 17.3 |
| CH024 | Explosives, propellant powders, and related items: | | | | | | | |
| | Exports | 602 | 575 | 732 | 720 | 766 | 46 | 6.3 |
| | Imports | 535 | 512 | 608 | 626 | 642 | 16 | 2.5 |
| | Trade balance | 67 | 63 | 124 | 95 | 125 | 30 | 31.7 |
| CH025 | Polyethylene resins in primary forms: | | | | | | | |
| | Exports | 7,578 | 6,236 | 6,959 | 7,495 | 7,370 | –125 | –1.7 |
| | Imports | 3,932 | 2,454 | 3,330 | 4,118 | 3,812 | –306 | –7.4 |
| | Trade balance | 3,646 | 3,781 | 3,630 | 3,377 | 3,557 | 181 | 5.3 |
| CH026 | Polypropylene resins in primary forms: | | | | | | | |
| | Exports | 3,563 | 2,659 | 3,085 | 3,442 | 3,133 | –309 | –9.0 |
| | Imports | 379 | 162 | 255 | 304 | 360 | 55 | 18.1 |
| | Trade balance | 3,183 | 2,498 | 2,830 | 3,137 | 2,774 | –364 | –11.6 |
| CH027 | Polyvinyl chloride resins in primary forms: | | | | | | | |
| | Exports | 2,213 | 2,228 | 3,149 | 3,500 | 3,402 | –98 | –2.8 |
| | Imports | 362 | 247 | 368 | 472 | 452 | –20 | –4.3 |
| | Trade balance | 1,851 | 1,981 | 2,781 | 3,028 | 2,950 | –78 | –2.6 |
| CH028 | Styrene polymers in primary forms: | | | | | | | |
| | Exports | 1,401 | 1,000 | 1,307 | 1,441 | 1,437 | –4 | –0.3 |
| | Imports | 938 | 653 | 862 | 989 | 1,145 | 156 | 15.8 |
| | Trade balance | 463 | 347 | 446 | 452 | 292 | –161 | –35.6 |
| CH029 | Saturated polyester resins: | | | | | | | |
| | Exports | 1,188 | 963 | 1,346 | 1,353 | 1,377 | 24 | 1.8 |
| | Imports | 1,302 | 873 | 960 | 1,351 | 1,387 | 36 | 2.7 |
| | Trade balance | –113 | 90 | 387 | 2 | –10 | –12 | ([a]) |
| CH030 | Other plastics in primary forms: | | | | | | | |
| | Exports | 13,430 | 10,412 | 14,512 | 16,134 | 15,771 | –363 | –2.2 |
| | Imports | 4,620 | 3,377 | 4,606 | 5,030 | 5,503 | 473 | 9.4 |
| | Trade balance | 8,810 | 7,034 | 9,906 | 11,104 | 10,268 | –836 | –7.5 |
| CH031 | Synthetic rubber: | | | | | | | |
| | Exports | 3,674 | 2,697 | 3,734 | 4,792 | 4,637 | –155 | –3.2 |
| | Imports | 1,924 | 1,178 | 1,816 | 2,507 | 2,604 | 96 | 3.8 |
| | Trade balance | 1,750 | 1,519 | 1,918 | 2,285 | 2,033 | –252 | –11.0 |
| CH032 | Tires and tubes: | | | | | | | |
| | Exports | 4,279 | 3,799 | 4,385 | 5,423 | 5,891 | 468 | 8.6 |
| | Imports | 9,811 | 8,229 | 10,806 | 13,411 | 14,752 | 1,341 | 10.0 |
| | Trade balance | –5,533 | –4,429 | –6,421 | –7,989 | –8,861 | –873 | –10.9 |

See footnote(s) at end of table.

**APPENDIX TABLE B.2 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| CH033 | Miscellaneous plastic products: | | | | | | | |
| | Exports | 20,189 | 17,719 | 21,235 | 23,108 | 23,755 | 648 | 2.8 |
| | Imports | 22,726 | 19,328 | 22,956 | 25,279 | 27,344 | 2,066 | 8.2 |
| | Trade balance | –2,537 | –1,609 | –1,721 | –2,171 | –3,589 | –1,418 | –65.3 |
| CH034 | Miscellaneous rubber products: | | | | | | | |
| | Exports | 2,912 | 2,442 | 3,121 | 3,500 | 3,880 | 380 | 10.9 |
| | Imports | 4,342 | 3,331 | 4,491 | 5,153 | 5,713 | 561 | 10.9 |
| | Trade balance | –1,430 | –890 | –1,370 | –1,653 | –1,833 | –180 | –10.9 |
| CH035 | Gelatin: | | | | | | | |
| | Exports | 69 | 62 | 65 | 88 | 100 | 12 | 13.7 |
| | Imports | 150 | 179 | 181 | 205 | 265 | 60 | 29.5 |
| | Trade balance | –81 | –117 | –116 | –116 | –165 | –48 | –41.4 |
| CH036 | Natural rubber: | | | | | | | |
| | Exports | 44 | 45 | 83 | 94 | 87 | –7 | –7.7 |
| | Imports | 2,857 | 1,274 | 2,820 | 4,772 | 3,382 | –1,390 | –29.1 |
| | Trade balance | –2,813 | –1,228 | –2,737 | –4,678 | –3,295 | 1,383 | 29.6 |

*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.

**APPENDIX TABLE B.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| EL001 | Office machines: | | | | | | | |
| | Exports | 1,087 | 759 | 724 | 675 | 589 | –86 | –12.8 |
| | Imports | 1,876 | 1,487 | 1,564 | 1,579 | 1,521 | –58 | –3.6 |
| | Trade balance | –789 | –727 | –839 | –904 | –932 | –29 | –3.2 |
| EL002 | Telecommunications equipment: | | | | | | | |
| | Exports | 17,157 | 13,421 | 13,605 | 14,619 | 15,156 | 537 | 3.7 |
| | Imports | 64,331 | 60,299 | 74,065 | 79,771 | 83,831 | 4,060 | 5.1 |
| | Trade balance | –47,174 | –46,878 | –60,460 | –65,152 | –68,675 | –3,523 | –5.4 |
| EL003 | Consumer electronics: | | | | | | | |
| | Exports | 4,466 | 3,965 | 4,785 | 5,092 | 4,794 | –298 | –5.8 |
| | Imports | 55,257 | 47,186 | 51,031 | 46,343 | 47,714 | 1,371 | 3.0 |
| | Trade balance | –50,791 | –43,221 | –46,246 | –41,251 | –42,920 | –1,669 | –4.0 |
| EL003A | Television receivers and video monitors: | | | | | | | |
| | Exports | 1,186 | 1,223 | 1,540 | 1,718 | 1,374 | –344 | –20.0 |
| | Imports | 34,757 | 29,751 | 31,125 | 27,552 | 27,560 | 7 | (z) |
| | Trade balance | –33,571 | –28,528 | –29,585 | –25,834 | –26,186 | –352 | –1.4 |
| EL004 | Blank and prerecorded media: | | | | | | | |
| | Exports | 4,365 | 3,567 | 3,560 | 3,371 | 3,464 | 93 | 2.8 |
| | Imports | 4,873 | 3,799 | 3,814 | 4,106 | 4,256 | 149 | 3.6 |
| | Trade balance | –508 | –232 | –254 | –736 | –792 | –56 | –7.6 |
| EL005 | Navigational instruments and remote control apparatus: | | | | | | | |
| | Exports | 4,105 | 2,558 | 2,768 | 3,317 | 3,356 | 39 | 1.2 |
| | Imports | 5,794 | 5,501 | 5,341 | 5,405 | 6,390 | 986 | 18.2 |
| | Trade balance | –1,690 | –2,943 | –2,573 | –2,088 | –3,035 | –947 | –45.3 |
| EL006 | Radio and television broadcasting equipment: | | | | | | | |
| | Exports | 1,194 | 989 | 1,090 | 1,075 | 961 | –114 | –10.6 |
| | Imports | 3,050 | 2,279 | 2,734 | 2,895 | 3,337 | 442 | 15.2 |
| | Trade balance | –1,857 | –1,290 | –1,645 | –1,820 | –2,376 | –556 | –30.5 |
| EL007 | Electric sound and visual signaling apparatus: | | | | | | | |
| | Exports | 1,389 | 1,243 | 1,295 | 1,357 | 1,379 | 22 | 1.6 |
| | Imports | 2,717 | 2,455 | 2,821 | 3,018 | 2,970 | –48 | –1.6 |
| | Trade balance | –1,328 | –1,212 | –1,526 | –1,662 | –1,592 | 70 | 4.2 |
| EL008 | Electrical capacitors and resistors: | | | | | | | |
| | Exports | 1,330 | 1,172 | 1,254 | 1,204 | 1,291 | 86 | 7.2 |
| | Imports | 2,296 | 1,586 | 2,296 | 2,323 | 2,322 | –2 | –0.1 |
| | Trade balance | –966 | –414 | –1,042 | –1,119 | –1,031 | 88 | 7.8 |
| EL009 | Printed circuits: | | | | | | | |
| | Exports | 1,389 | 1,141 | 1,325 | 1,200 | 1,299 | 99 | 8.3 |
| | Imports | 2,082 | 1,479 | 1,841 | 1,883 | 1,853 | –30 | –1.6 |
| | Trade balance | –693 | –338 | –516 | –683 | –554 | 129 | 18.9 |
| EL010 | Circuit apparatus exceeding 1000V: | | | | | | | |
| | Exports | 683 | 576 | 649 | 748 | 785 | 37 | 5.0 |
| | Imports | 568 | 465 | 523 | 687 | 775 | 89 | 12.9 |
| | Trade balance | 115 | 111 | 126 | 61 | 9 | –52 | –84.6 |

See footnote(s) at end of table.

**APPENDIX TABLE B.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| EL011 | Circuit apparatus not exceeding 1000V: | | | | | | | |
| | Exports | 6,427 | 5,032 | 5,859 | 6,106 | 6,494 | 388 | 6.4 |
| | Imports | 7,763 | 5,727 | 7,911 | 8,430 | 9,180 | 750 | 8.9 |
| | Trade balance | –1,335 | –694 | –2,051 | –2,324 | –2,686 | –362 | –15.6 |
| EL012 | Circuit apparatus assemblies: | | | | | | | |
| | Exports | 2,560 | 2,206 | 2,427 | 2,788 | 3,338 | 550 | 19.7 |
| | Imports | 5,327 | 4,228 | 5,446 | 6,216 | 7,471 | 1,255 | 20.2 |
| | Trade balance | –2,768 | –2,022 | –3,019 | –3,428 | –4,133 | –705 | –20.6 |
| EL013 | Parts of circuit apparatus: | | | | | | | |
| | Exports | 2,406 | 1,864 | 2,442 | 2,679 | 2,851 | 173 | 6.4 |
| | Imports | 1,911 | 1,424 | 2,037 | 2,402 | 2,662 | 260 | 10.8 |
| | Trade balance | 495 | 440 | 405 | 276 | 189 | –87 | –31.5 |
| EL014 | Electron tubes: | | | | | | | |
| | Exports | 276 | 262 | 320 | 273 | 242 | –31 | –11.4 |
| | Imports | 340 | 267 | 294 | 348 | 343 | –6 | –1.6 |
| | Trade balance | –64 | –5 | 25 | –76 | –101 | –25 | –33.6 |
| EL015 | Semiconductors and integrated circuits: | | | | | | | |
| | Exports | 35,809 | 25,058 | 31,267 | 29,188 | 26,436 | –2,752 | –9.4 |
| | Imports | 25,298 | 21,190 | 29,134 | 37,624 | 37,358 | –267 | –0.7 |
| | Trade balance | 10,511 | 3,869 | 2,133 | –8,437 | –10,922 | –2,485 | –29.5 |
| EL016 | Miscellaneous electrical equipment: | | | | | | | |
| | Exports | 2,141 | 1,744 | 2,066 | 2,329 | 2,629 | 300 | 12.9 |
| | Imports | 3,857 | 3,638 | 5,587 | 6,841 | 6,105 | –736 | –10.8 |
| | Trade balance | –1,716 | –1,894 | –3,521 | –4,512 | –3,476 | 1,036 | 23.0 |
| EL017 | Computers, peripherals, and parts: | | | | | | | |
| | Exports | 26,653 | 19,837 | 20,592 | 20,332 | 21,086 | 754 | 3.7 |
| | Imports | 102,338 | 95,391 | 118,898 | 121,300 | 123,283 | 1,983 | 1.6 |
| | Trade balance | –75,685 | –75,554 | –98,306 | –100,968 | –102,198 | –1,230 | –1.2 |
| EL018 | Photographic film and paper: | | | | | | | |
| | Exports | 2,237 | 2,091 | 2,034 | 1,996 | 1,793 | –203 | –10.2 |
| | Imports | 1,340 | 1,067 | 1,056 | 999 | 804 | –195 | –19.5 |
| | Trade balance | 897 | 1,023 | 978 | 998 | 990 | –8 | –0.8 |
| EL019 | Optical fibers, optical fiber bundles and cables: | | | | | | | |
| | Exports | 842 | 906 | 982 | 893 | 1,165 | 272 | 30.5 |
| | Imports | 639 | 481 | 589 | 676 | 776 | 100 | 14.7 |
| | Trade balance | 203 | 425 | 392 | 217 | 389 | 172 | 79.5 |
| EL020 | Optical goods, including ophthalmic goods: | | | | | | | |
| | Exports | 4,963 | 4,447 | 5,489 | 5,636 | 5,460 | –176 | –3.1 |
| | Imports | 7,978 | 6,632 | 8,095 | 8,805 | 9,275 | 470 | 5.3 |
| | Trade balance | –3,016 | –2,184 | –2,606 | –3,169 | –3,814 | –645 | –20.4 |
| EL021 | Photographic cameras and equipment: | | | | | | | |
| | Exports | 1,609 | 1,301 | 1,550 | 1,578 | 1,511 | –67 | –4.3 |
| | Imports | 1,262 | 842 | 928 | 891 | 873 | –18 | –2.0 |
| | Trade balance | 347 | 459 | 622 | 687 | 638 | –49 | –7.2 |

See footnote(s) at end of table.

**APPENDIX TABLE B.3 Electronic products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| EL022 | Medical goods: | | | | | | | |
| | Exports | 28,415 | 28,647 | 30,604 | 32,298 | 33,471 | 1,173 | 3.6 |
| | Imports | 27,531 | 25,928 | 29,219 | 31,796 | 32,639 | 844 | 2.7 |
| | Trade balance | 884 | 2,719 | 1,384 | 502 | 832 | 330 | 65.6 |
| EL023 | Watches and clocks: | | | | | | | |
| | Exports | 416 | 356 | 381 | 453 | 396 | –56 | –12.5 |
| | Imports | 4,175 | 3,000 | 3,592 | 4,372 | 4,643 | 272 | 6.2 |
| | Trade balance | –3,758 | –2,643 | –3,211 | –3,919 | –4,247 | –328 | –8.4 |
| EL024 | Drawing, drafting, and calculating instruments: | | | | | | | |
| | Exports | 665 | 543 | 605 | 594 | 562 | –32 | –5.4 |
| | Imports | 256 | 158 | 206 | 242 | 270 | 28 | 11.6 |
| | Trade balance | 410 | 385 | 399 | 351 | 291 | –60 | –17.1 |
| EL025 | Measuring, testing, and controlling instruments: | | | | | | | |
| | Exports | 22,195 | 19,251 | 22,161 | 24,738 | 26,496 | 1,758 | 7.1 |
| | Imports | 18,764 | 14,912 | 18,592 | 21,639 | 23,115 | 1,476 | 6.8 |
| | Trade balance | 3,431 | 4,339 | 3,569 | 3,099 | 3,381 | 282 | 9.1 |

*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]Less than 0.05 percent.

**APPENDIX TABLE B.4 Energy–related products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| EP001 | Electrical energy: | | | | | | | |
| | Exports | 1,386 | 575 | 648 | 391 | 233 | –158 | –40.5 |
| | Imports | 3,641 | 2,071 | 2,071 | 2,096 | 1,914 | –182 | –8.7 |
| | Trade balance | –2,254 | –1,495 | –1,423 | –1,705 | –1,681 | 24 | 1.4 |
| EP002 | Nuclear materials: | | | | | | | |
| | Exports | 2,141 | 2,235 | 1,886 | 1,948 | 1,518 | –429 | –22.0 |
| | Imports | 5,435 | 4,454 | 5,025 | 4,943 | 4,171 | –773 | –15.6 |
| | Trade balance | –3,294 | –2,219 | –3,139 | –2,996 | –2,652 | 343 | 11.5 |
| EP003 | Coal, coke, and related chemical products: | | | | | | | |
| | Exports | 10,255 | 8,079 | 12,612 | 19,471 | 17,779 | –1,691 | –8.7 |
| | Imports | 9,102 | 4,123 | 5,335 | 7,076 | 5,447 | –1,629 | –23.0 |
| | Trade balance | 1,154 | 3,956 | 7,278 | 12,395 | 12,333 | –62 | –0.5 |
| EP004 | Crude petroleum: | | | | | | | |
| | Exports | 2,296 | 1,620 | 1,384 | 1,460 | 2,184 | 724 | 49.6 |
| | Imports | 274,950 | 150,809 | 196,862 | 246,894 | 228,944 | –17,950 | –7.3 |
| | Trade balance | –272,654 | –149,189 | –195,478 | –245,435 | –226,760 | 18,674 | 7.6 |
| EP005 | Petroleum products: | | | | | | | |
| | Exports | 58,765 | 42,048 | 61,131 | 100,425 | 111,355 | 10,930 | 10.9 |
| | Imports | 126,441 | 72,581 | 97,889 | 135,170 | 129,773 | –5,397 | –4.0 |
| | Trade balance | –67,675 | –30,533 | –36,758 | –34,745 | –18,418 | 16,327 | 47.0 |
| EP006 | Natural gas and components: | | | | | | | |
| | Exports | 6,893 | 5,270 | 7,805 | 10,394 | 9,225 | –1,169 | –11.2 |
| | Imports | 52,757 | 26,840 | 31,001 | 34,616 | 28,193 | –6,423 | –18.6 |
| | Trade balance | –45,864 | –21,571 | –23,196 | –24,222 | –18,968 | 5,255 | 21.7 |

*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.

**APPENDIX TABLE B.5 Footwear: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| FW001 | Footwear: | | | | | | | |
| | Exports | 673 | 620 | 728 | 832 | 824 | –7 | –0.9 |
| | Imports | 19,451 | 17,666 | 20,710 | 22,559 | 23,745 | 1,185 | 5.3 |
| | Trade balance | –18,778 | –17,046 | –19,982 | –21,728 | –22,920 | –1,193 | –5.5 |

*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.

**APPENDIX TABLE B.6 Forest products: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| FP001 | Logs and rough wood products: | | | | | | | |
| | Exports | 2,116 | 1,716 | 2,236 | 2,624 | 2,545 | –80 | –3.0 |
| | Imports | 567 | 398 | 423 | 427 | 459 | 32 | 7.5 |
| | Trade balance | 1,549 | 1,317 | 1,813 | 2,197 | 2,085 | –112 | –5.1 |
| FP002 | Lumber: | | | | | | | |
| | Exports | 1,889 | 1,593 | 2,256 | 2,607 | 2,681 | 74 | 2.9 |
| | Imports | 4,404 | 2,639 | 3,391 | 3,366 | 3,961 | 595 | 17.7 |
| | Trade balance | –2,515 | –1,046 | –1,135 | –759 | –1,280 | –521 | –68.6 |
| FP003 | Moldings, millwork, and joinery: | | | | | | | |
| | Exports | 728 | 549 | 648 | 702 | 711 | 9 | 1.2 |
| | Imports | 3,040 | 2,125 | 2,316 | 2,229 | 2,478 | 248 | 11.1 |
| | Trade balance | –2,312 | –1,576 | –1,668 | –1,527 | –1,767 | –239 | –15.7 |
| FP004 | Wood veneer and wood panels: | | | | | | | |
| | Exports | 1,171 | 833 | 1,065 | 1,060 | 1,113 | 53 | 5.0 |
| | Imports | 3,941 | 2,961 | 3,413 | 3,263 | 3,931 | 668 | 20.5 |
| | Trade balance | –2,770 | –2,128 | –2,348 | –2,203 | –2,818 | –615 | –27.9 |
| FP005 | Wooden containers: | | | | | | | |
| | Exports | 266 | 253 | 271 | 270 | 276 | 6 | 2.1 |
| | Imports | 722 | 546 | 590 | 619 | 654 | 35 | 5.6 |
| | Trade balance | –456 | –293 | –319 | –349 | –378 | –29 | –8.3 |
| FP006 | Tools and tool handles of wood: | | | | | | | |
| | Exports | 73 | 56 | 61 | 41 | 47 | 6 | 14.8 |
| | Imports | 191 | 156 | 177 | 185 | 200 | 16 | 8.5 |
| | Trade balance | –119 | –100 | –116 | –144 | –153 | –10 | –6.8 |
| FP007 | Miscellaneous articles of wood: | | | | | | | |
| | Exports | 251 | 216 | 221 | 267 | 212 | –55 | –20.6 |
| | Imports | 1,276 | 981 | 1,068 | 1,122 | 1,200 | 78 | 7.0 |
| | Trade balance | –1,025 | –765 | –847 | –854 | –988 | –133 | –15.6 |
| FP008 | Cork and rattan: | | | | | | | |
| | Exports | 71 | 54 | 46 | 43 | 40 | –3 | –6.8 |
| | Imports | 705 | 561 | 618 | 715 | 741 | 26 | 3.6 |
| | Trade balance | –634 | –507 | –571 | –672 | –701 | –29 | –4.3 |
| FP009 | Wood pulp and recovered paper: | | | | | | | |
| | Exports | 7,809 | 6,751 | 8,788 | 9,816 | 9,006 | –810 | –8.2 |
| | Imports | 4,023 | 2,449 | 3,886 | 4,043 | 3,369 | –674 | –16.7 |
| | Trade balance | 3,787 | 4,302 | 4,902 | 5,773 | 5,637 | –136 | –2.4 |
| FP010 | Paper boxes and bags: | | | | | | | |
| | Exports | 1,616 | 1,483 | 1,669 | 1,744 | 1,757 | 14 | 0.8 |
| | Imports | 1,793 | 1,596 | 1,796 | 1,920 | 1,990 | 70 | 3.7 |
| | Trade balance | –177 | –113 | –127 | –176 | –233 | –57 | –32.2 |
| FP011 | Industrial papers and paperboards: | | | | | | | |
| | Exports | 8,281 | 7,265 | 8,574 | 9,338 | 9,085 | –253 | –2.7 |
| | Imports | 5,252 | 4,621 | 5,256 | 5,397 | 5,301 | –96 | –1.8 |
| | Trade balance | 3,028 | 2,644 | 3,318 | 3,941 | 3,784 | –157 | –4.0 |

See footnote(s) at end of table.

**APPENDIX TABLE B.6 Forest products: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| FP011A | Paperboard: | | | | | | | |
| | Exports | 5,889 | 5,065 | 6,055 | 6,739 | 6,346 | –393 | –5.8 |
| | Imports | 2,461 | 2,019 | 2,342 | 2,394 | 2,321 | –73 | –3.1 |
| | Trade balance | 3,428 | 3,045 | 3,713 | 4,345 | 4,025 | –320 | –7.4 |
| FP011B | Tissue and tissue products: | | | | | | | |
| | Exports | 1,621 | 1,589 | 1,774 | 1,801 | 1,944 | 143 | 7.9 |
| | Imports | 2,018 | 1,946 | 2,176 | 2,178 | 2,130 | –48 | –2.2 |
| | Trade balance | –398 | –357 | –402 | –376 | –186 | 191 | 50.7 |
| FP011C | Industrial paper: | | | | | | | |
| | Exports | 771 | 611 | 745 | 798 | 795 | –3 | –0.4 |
| | Imports | 773 | 656 | 738 | 825 | 851 | 26 | 3.1 |
| | Trade balance | –3 | –44 | 7 | –28 | –56 | –28 | –103.2 |
| FP012 | Newsprint: | | | | | | | |
| | Exports | 605 | 317 | 440 | 535 | 454 | –81 | –15.1 |
| | Imports | 2,365 | 1,442 | 1,377 | 1,464 | 1,344 | –120 | –8.2 |
| | Trade balance | –1,759 | –1,125 | –937 | –929 | –890 | 39 | 4.2 |
| FP013 | Printing and writing papers: | | | | | | | |
| | Exports | 1,190 | 1,105 | 1,277 | 1,336 | 1,533 | 197 | 14.7 |
| | Imports | 5,672 | 4,285 | 4,044 | 4,024 | 3,858 | –166 | –4.1 |
| | Trade balance | –4,482 | –3,180 | –2,766 | –2,688 | –2,325 | 363 | 13.5 |
| FP014 | Certain specialty papers: | | | | | | | |
| | Exports | 1,611 | 1,389 | 1,526 | 1,476 | 1,336 | –140 | –9.5 |
| | Imports | 957 | 835 | 905 | 935 | 922 | –14 | –1.5 |
| | Trade balance | 654 | 554 | 621 | 540 | 414 | –126 | –23.3 |
| FP015 | Miscellaneous paper products: | | | | | | | |
| | Exports | 1,860 | 1,749 | 1,898 | 2,043 | 2,199 | 156 | 7.7 |
| | Imports | 2,335 | 1,964 | 2,207 | 2,388 | 2,470 | 82 | 3.4 |
| | Trade balance | –475 | –216 | –309 | –345 | –270 | 75 | 21.6 |
| FP016 | Printed matter: | | | | | | | |
| | Exports | 5,825 | 5,162 | 5,405 | 5,371 | 5,313 | –58 | –1.1 |
| | Imports | 5,048 | 3,952 | 4,282 | 4,174 | 4,237 | 64 | 1.5 |
| | Trade balance | 777 | 1,210 | 1,123 | 1,197 | 1,075 | –122 | –10.2 |

*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.

**APPENDIX TABLE B.7 Machinery: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MT001 | Pumps for liquids: | | | | | | | |
| | Exports | 4,937 | 4,238 | 5,073 | 6,189 | 7,085 | 896 | 14.5 |
| | Imports | 4,934 | 3,746 | 4,915 | 6,356 | 7,216 | 860 | 13.5 |
| | Trade balance | 3 | 492 | 158 | –167 | –131 | 36 | 21.7 |
| MT002 | Air–conditioning equipment and parts: | | | | | | | |
| | Exports | 7,830 | 6,911 | 7,857 | 8,568 | 9,198 | 630 | 7.4 |
| | Imports | 10,859 | 8,576 | 10,695 | 12,810 | 14,045 | 1,235 | 9.6 |
| | Trade balance | –3,029 | –1,665 | –2,838 | –4,242 | –4,847 | –605 | –14.3 |
| MT003 | Industrial thermal–processing equipment and furnaces: | | | | | | | |
| | Exports | 4,493 | 3,489 | 3,993 | 4,430 | 4,634 | 204 | 4.6 |
| | Imports | 4,094 | 3,648 | 3,365 | 3,790 | 4,120 | 331 | 8.7 |
| | Trade balance | 399 | –160 | 628 | 640 | 513 | –127 | –19.8 |
| MT004 | Household appliances, including commercial applications: | | | | | | | |
| | Exports | 7,298 | 5,576 | 6,308 | 6,771 | 7,184 | 414 | 6.1 |
| | Imports | 18,350 | 16,608 | 19,731 | 20,524 | 21,542 | 1,018 | 5.0 |
| | Trade balance | –11,053 | –11,031 | –13,423 | –13,753 | –14,358 | –604 | –4.4 |
| MT004A | Major household appliances and parts: | | | | | | | |
| | Exports | 2,487 | 1,875 | 1,977 | 1,999 | 2,123 | 124 | 6.2 |
| | Imports | 6,440 | 5,964 | 7,113 | 7,037 | 7,529 | 492 | 7.0 |
| | Trade balance | –3,953 | –4,089 | –5,136 | –5,038 | –5,406 | –368 | –7.3 |
| MT005 | Centrifuges and filtering and purifying equipment: | | | | | | | |
| | Exports | 5,417 | 4,703 | 5,163 | 5,922 | 6,297 | 374 | 6.3 |
| | Imports | 5,259 | 3,886 | 4,653 | 5,569 | 5,794 | 225 | 4.0 |
| | Trade balance | 158 | 817 | 509 | 354 | 503 | 149 | 42.2 |
| MT006 | Wrapping, packaging, and can–sealing machinery: | | | | | | | |
| | Exports | 863 | 722 | 758 | 869 | 832 | –37 | –4.2 |
| | Imports | 2,282 | 1,625 | 1,808 | 2,343 | 2,241 | –102 | –4.4 |
| | Trade balance | –1,419 | –903 | –1,050 | –1,474 | –1,409 | 65 | 4.4 |
| MT007 | Scales and weighing machinery: | | | | | | | |
| | Exports | 192 | 194 | 185 | 199 | 212 | 13 | 6.6 |
| | Imports | 594 | 529 | 663 | 680 | 700 | 20 | 2.9 |
| | Trade balance | –403 | –336 | –477 | –481 | –488 | –7 | –1.4 |
| MT008 | Mineral processing machinery: | | | | | | | |
| | Exports | 1,489 | 1,193 | 1,405 | 1,721 | 1,842 | 121 | 7.0 |
| | Imports | 1,213 | 656 | 752 | 1,097 | 1,232 | 135 | 12.3 |
| | Trade balance | 276 | 537 | 653 | 624 | 610 | –14 | –2.2 |
| MT009 | Farm and garden machinery and equipment: | | | | | | | |
| | Exports | 10,454 | 7,667 | 8,653 | 11,234 | 13,147 | 1,912 | 17.0 |
| | Imports | 6,932 | 4,977 | 5,887 | 7,069 | 8,191 | 1,122 | 15.9 |
| | Trade balance | 3,522 | 2,689 | 2,767 | 4,165 | 4,956 | 790 | 19.0 |

See footnote(s) at end of table.

**APPENDIX TABLE B.7 Machinery: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MT010 | Industrial food–processing and related machinery: | | | | | | | |
| | Exports | 947 | 763 | 877 | 1,008 | 1,063 | 55 | 5.4 |
| | Imports | 882 | 741 | 825 | 1,027 | 1,071 | 44 | 4.3 |
| | Trade balance | 66 | 23 | 52 | –19 | –8 | 11 | 58.0 |
| MT011 | Pulp, paper, and paperboard machinery: | | | | | | | |
| | Exports | 829 | 616 | 643 | 713 | 780 | 67 | 9.4 |
| | Imports | 1,200 | 830 | 950 | 1,033 | 1,260 | 227 | 21.9 |
| | Trade balance | –371 | –214 | –307 | –320 | –479 | –160 | –49.8 |
| MT012 | Printing and related machinery: | | | | | | | |
| | Exports | 1,907 | 1,431 | 1,651 | 1,699 | 1,587 | –111 | –6.5 |
| | Imports | 2,404 | 1,372 | 1,251 | 1,420 | 1,388 | –32 | –2.2 |
| | Trade balance | –498 | 59 | 400 | 279 | 199 | –80 | –28.6 |
| MT013 | Textile machinery: | | | | | | | |
| | Exports | 880 | 642 | 800 | 741 | 712 | –29 | –3.9 |
| | Imports | 1,313 | 843 | 1,190 | 1,292 | 1,221 | –71 | –5.5 |
| | Trade balance | –433 | –201 | –389 | –551 | –509 | 42 | 7.6 |
| MT014 | Metal rolling mills: | | | | | | | |
| | Exports | 516 | 486 | 524 | 442 | 430 | –12 | –2.8 |
| | Imports | 488 | 523 | 382 | 425 | 373 | –53 | –12.4 |
| | Trade balance | 28 | –37 | 143 | 17 | 57 | 40 | 235.4 |
| MT015 | Metal cutting machine tools: | | | | | | | |
| | Exports | 2,313 | 1,524 | 1,883 | 2,357 | 2,438 | 82 | 3.5 |
| | Imports | 4,654 | 2,173 | 2,529 | 4,509 | 5,822 | 1,313 | 29.1 |
| | Trade balance | –2,341 | –650 | –646 | –2,152 | –3,384 | –1,231 | –57.2 |
| MT016 | Machine tool accessories: | | | | | | | |
| | Exports | 436 | 319 | 401 | 475 | 421 | –54 | –11.3 |
| | Imports | 644 | 438 | 568 | 793 | 923 | 130 | 16.4 |
| | Trade balance | –208 | –119 | –167 | –317 | –501 | –184 | –58.0 |
| MT017 | Metal forming machine tools: | | | | | | | |
| | Exports | 1,181 | 938 | 1,190 | 1,418 | 1,399 | –19 | –1.3 |
| | Imports | 1,368 | 816 | 847 | 1,177 | 1,418 | 241 | 20.5 |
| | Trade balance | –187 | 121 | 343 | 241 | –19 | –260 | [a] |
| MT018 | Non–metalworking machine tools: | | | | | | | |
| | Exports | 885 | 582 | 730 | 704 | 688 | –16 | –2.3 |
| | Imports | 1,674 | 1,287 | 1,090 | 1,118 | 1,178 | 60 | 5.3 |
| | Trade balance | –789 | –705 | –359 | –415 | –490 | –76 | –18.2 |
| MT019 | Semiconductor manufacturing equipment and robotics: | | | | | | | |
| | Exports | 12,022 | 8,414 | 16,533 | 14,694 | 13,570 | –1,124 | –7.6 |
| | Imports | 7,851 | 5,914 | 9,335 | 13,791 | 12,711 | –1,080 | –7.8 |
| | Trade balance | 4,170 | 2,500 | 7,198 | 903 | 859 | –44 | –4.8 |

See footnote(s) at end of table.

**APPENDIX TABLE B.7 Machinery: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MT019A | Semiconductor manufacturing equipment: | | | | | | | |
| | Exports | 11,537 | 8,005 | 16,136 | 14,200 | 13,137 | –1,063 | –7.5 |
| | Imports | 7,256 | 5,510 | 8,772 | 13,077 | 11,998 | –1,079 | –8.3 |
| | Trade balance | 4,281 | 2,495 | 7,364 | 1,122 | 1,138 | 16 | 1.4 |
| MT020 | Taps, cocks, valves, and similar devices: | | | | | | | |
| | Exports | 6,427 | 5,929 | 7,071 | 8,421 | 9,077 | 656 | 7.8 |
| | Imports | 9,760 | 7,542 | 9,661 | 11,667 | 12,977 | 1,311 | 11.2 |
| | Trade balance | –3,333 | –1,613 | –2,590 | –3,246 | –3,901 | –655 | –20.2 |
| MT021 | Mechanical power transmission equipment: | | | | | | | |
| | Exports | 2,023 | 1,713 | 2,177 | 2,753 | 3,058 | 305 | 11.1 |
| | Imports | 4,320 | 3,047 | 3,672 | 4,730 | 5,201 | 471 | 10.0 |
| | Trade balance | –2,297 | –1,334 | –1,494 | –1,977 | –2,143 | –166 | –8.4 |
| MT022 | Boilers, turbines, and related machinery: | | | | | | | |
| | Exports | 1,522 | 1,773 | 1,643 | 1,930 | 1,736 | –194 | –10.0 |
| | Imports | 1,773 | 1,899 | 1,614 | 1,464 | 1,299 | –165 | –11.3 |
| | Trade balance | –250 | –126 | 29 | 466 | 437 | –28 | –6.1 |
| MT023 | Electric motors, generators, and related equipment: | | | | | | | |
| | Exports | 8,128 | 6,743 | 7,584 | 7,897 | 9,321 | 1,424 | 18.0 |
| | Imports | 12,888 | 10,075 | 10,338 | 12,055 | 13,189 | 1,134 | 9.4 |
| | Trade balance | –4,760 | –3,332 | –2,754 | –4,158 | –3,868 | 290 | 7.0 |
| MT024 | Electrical transformers, static converters, and inductors: | | | | | | | |
| | Exports | 2,835 | 2,416 | 2,759 | 2,991 | 3,118 | 127 | 4.3 |
| | Imports | 8,891 | 7,577 | 8,999 | 9,585 | 10,053 | 468 | 4.9 |
| | Trade balance | –6,056 | –5,162 | –6,240 | –6,594 | –6,934 | –341 | –5.2 |
| MT025 | Portable electric handtools: | | | | | | | |
| | Exports | 139 | 110 | 141 | 157 | 199 | 42 | 27.0 |
| | Imports | 2,349 | 2,140 | 2,431 | 2,648 | 2,787 | 139 | 5.2 |
| | Trade balance | –2,210 | –2,031 | –2,290 | –2,492 | –2,588 | –97 | –3.9 |
| MT026 | Nonelectrically powered handtools: | | | | | | | |
| | Exports | 1,105 | 814 | 917 | 927 | 948 | 21 | 2.3 |
| | Imports | 1,355 | 1,017 | 1,404 | 1,570 | 1,673 | 104 | 6.6 |
| | Trade balance | –250 | –203 | –487 | –643 | –725 | –83 | –12.9 |
| MT027 | Electric lamps (bulbs) and portable electric lights: | | | | | | | |
| | Exports | 807 | 668 | 752 | 738 | 715 | –23 | –3.1 |
| | Imports | 2,745 | 2,281 | 2,705 | 2,809 | 2,973 | 164 | 5.8 |
| | Trade balance | –1,938 | –1,613 | –1,953 | –2,071 | –2,258 | –187 | –9.0 |
| MT028 | Welding and soldering equipment: | | | | | | | |
| | Exports | 1,305 | 816 | 1,064 | 1,243 | 1,219 | –24 | –1.9 |
| | Imports | 1,065 | 742 | 901 | 1,243 | 1,391 | 148 | 11.9 |
| | Trade balance | 240 | 74 | 163 | ([b]) | –172 | –172 | –47,523.2 |

See footnote(s) at end of table.

**APPENDIX TABLE B.7 Machinery: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MT029 | Nonautomotive insulated electrical wire and related products: | | | | | | | |
| | Exports | 4,733 | 3,727 | 4,790 | 5,382 | 6,020 | 638 | 11.9 |
| | Imports | 6,463 | 4,540 | 6,025 | 6,765 | 7,258 | 493 | 7.3 |
| | Trade balance | –1,730 | –813 | –1,235 | –1,384 | –1,238 | 146 | 10.5 |
| MT030 | Miscellaneous machinery: | | | | | | | |
| | Exports | 10,805 | 8,510 | 9,011 | 10,535 | 11,281 | 746 | 7.1 |
| | Imports | 10,284 | 7,717 | 8,668 | 10,503 | 11,446 | 943 | 9.0 |
| | Trade balance | 521 | 793 | 343 | 33 | –164 | –197 | ([a]) |
| MT031 | Molds and molding machinery: | | | | | | | |
| | Exports | 2,076 | 1,801 | 1,841 | 2,066 | 2,191 | 125 | 6.0 |
| | Imports | 3,205 | 2,294 | 2,617 | 3,086 | 3,544 | 458 | 14.8 |
| | Trade balance | –1,130 | –494 | –775 | –1,020 | –1,353 | –333 | –32.7 |

*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.
[b]Less than $500,000.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM001 | Clays and related mineral products: | | | | | | | |
| | Exports | 1,280 | 980 | 1,269 | 1,284 | 1,267 | –17 | –1.3 |
| | Imports | 294 | 351 | 429 | 447 | 454 | 7 | 1.6 |
| | Trade balance | 986 | 628 | 840 | 837 | 813 | –24 | –2.9 |
| MM002 | Fluorspar and miscellaneous mineral substances: | | | | | | | |
| | Exports | 50 | 47 | 107 | 139 | 121 | –17 | –12.4 |
| | Imports | 393 | 184 | 173 | 223 | 242 | 19 | 8.5 |
| | Trade balance | –342 | –138 | –66 | –85 | –121 | –36 | –42.8 |
| MM003 | Iron ores and concentrates: | | | | | | | |
| | Exports | 1,244 | 356 | 1,092 | 1,327 | 1,436 | 109 | 8.2 |
| | Imports | 917 | 375 | 703 | 841 | 757 | –83 | –9.9 |
| | Trade balance | 327 | –19 | 388 | 486 | 678 | 193 | 39.6 |
| MM004 | Copper ores and concentrates: | | | | | | | |
| | Exports | 1,731 | 930 | 1,181 | 2,227 | 2,396 | 169 | 7.6 |
| | Imports | 1 | (a) | 2 | 143 | 30 | –114 | –79.2 |
| | Trade balance | 1,730 | 929 | 1,179 | 2,084 | 2,366 | 282 | 13.6 |
| MM005 | Lead ores, concentrates, and residues: | | | | | | | |
| | Exports | 372 | 382 | 668 | 725 | 594 | –131 | –18.0 |
| | Imports | (a) | (a) | 2 | 29 | 29 | (a) | 1.1 |
| | Trade balance | 372 | 381 | 666 | 696 | 565 | –131 | –18.8 |
| MM005A | Lead ores and concentrates: | | | | | | | |
| | Exports | 370 | 372 | 667 | 724 | 594 | –131 | –18.0 |
| | Imports | (a) | (a) | 2 | 29 | 28 | (a) | –1.7 |
| | Trade balance | 370 | 372 | 665 | 696 | 566 | –130 | –18.7 |
| MM006 | Zinc ores, concentrates, and residues: | | | | | | | |
| | Exports | 616 | 674 | 934 | 1,062 | 885 | –176 | –16.6 |
| | Imports | 91 | 76 | 63 | 64 | 41 | –23 | –36.7 |
| | Trade balance | 525 | 598 | 871 | 998 | 845 | –153 | –15.3 |
| MM006A | Zinc ores and concentrates: | | | | | | | |
| | Exports | 610 | 663 | 924 | 1,050 | 866 | –185 | –17.6 |
| | Imports | 73 | 68 | 44 | 46 | 14 | –33 | –70.4 |
| | Trade balance | 537 | 595 | 880 | 1,004 | 852 | –152 | –15.1 |
| MM007 | Certain ores, concentrates, ash, and residues: | | | | | | | |
| | Exports | 2,073 | 768 | 1,225 | 1,609 | 1,276 | –333 | –20.7 |
| | Imports | 2,403 | 1,696 | 1,747 | 2,184 | 2,336 | 152 | 7.0 |
| | Trade balance | –331 | –928 | –522 | –576 | –1,060 | –485 | –84.3 |
| MM007A | Molybdenum ores and concentrates: | | | | | | | |
| | Exports | 1,814 | 631 | 1,055 | 1,446 | 1,119 | –327 | –22.6 |
| | Imports | 512 | 150 | 314 | 460 | 299 | –161 | –35.0 |
| | Trade balance | 1,303 | 481 | 741 | 986 | 820 | –166 | –16.9 |
| MM008 | Precious metal ores and concentrates: | | | | | | | |
| | Exports | 251 | 204 | 249 | 413 | 321 | –92 | –22.2 |
| | Imports | 18 | 36 | 62 | 156 | 57 | –99 | –63.5 |
| | Trade balance | 233 | 168 | 187 | 257 | 264 | 7 | 2.8 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM008A | Gold ores and concentrates: | | | | | | | |
| | Exports | 66 | 68 | 158 | 299 | 271 | –28 | –9.3 |
| | Imports | 16 | 33 | 58 | 125 | 43 | –82 | –65.6 |
| | Trade balance | 50 | 35 | 100 | 174 | 228 | 54 | 31.2 |
| MM008B | Silver ores and concentrates: | | | | | | | |
| | Exports | 99 | 134 | 81 | 110 | 48 | –63 | –56.7 |
| | Imports | (a) | (a) | (a) | 1 | 8 | 7 | 1,180.2 |
| | Trade balance | 99 | 134 | 81 | 110 | 40 | –70 | –63.7 |
| MM009 | Cement, stone, and related products: | | | | | | | |
| | Exports | 2,554 | 2,069 | 2,703 | 3,070 | 3,245 | 175 | 5.7 |
| | Imports | 6,499 | 4,536 | 5,066 | 5,498 | 5,840 | 342 | 6.2 |
| | Trade balance | –3,945 | –2,467 | –2,364 | –2,428 | –2,595 | –166 | –6.9 |
| MM009A | Cement: | | | | | | | |
| | Exports | 106 | 109 | 169 | 190 | 233 | 43 | 22.6 |
| | Imports | 789 | 511 | 501 | 478 | 524 | 46 | 9.5 |
| | Trade balance | –682 | –402 | –331 | –288 | –290 | –3 | –0.9 |
| MM010 | Industrial ceramics: | | | | | | | |
| | Exports | 998 | 807 | 1,146 | 1,292 | 1,271 | –21 | –1.6 |
| | Imports | 1,037 | 712 | 1,241 | 1,815 | 1,700 | –114 | –6.3 |
| | Trade balance | –39 | 95 | –95 | –523 | –429 | 94 | 17.9 |
| MM011 | Ceramic bricks and similar articles: | | | | | | | |
| | Exports | 47 | 39 | 39 | 56 | 54 | –2 | –3.6 |
| | Imports | 68 | 43 | 34 | 46 | 44 | –2 | –4.4 |
| | Trade balance | –21 | –5 | 5 | 10 | 10 | (a) | 0.6 |
| MM012 | Ceramic floor and wall tiles: | | | | | | | |
| | Exports | 44 | 39 | 40 | 42 | 43 | 1 | 3.3 |
| | Imports | 1,378 | 964 | 1,025 | 1,078 | 1,184 | 106 | 9.8 |
| | Trade balance | –1,335 | –926 | –985 | –1,036 | –1,141 | –105 | –10.1 |
| MM013 | Ceramic household articles: | | | | | | | |
| | Exports | 119 | 100 | 97 | 99 | 107 | 8 | 7.9 |
| | Imports | 1,538 | 1,181 | 1,490 | 1,487 | 1,500 | 14 | 0.9 |
| | Trade balance | –1,418 | –1,081 | –1,393 | –1,388 | –1,394 | –6 | –0.4 |
| MM014 | Flat glass: | | | | | | | |
| | Exports | 2,432 | 1,785 | 2,310 | 2,478 | 2,435 | –43 | –1.7 |
| | Imports | 1,879 | 1,474 | 1,784 | 1,825 | 1,822 | –3 | –0.2 |
| | Trade balance | 552 | 311 | 526 | 653 | 613 | –40 | –6.2 |
| MM015 | Glass containers: | | | | | | | |
| | Exports | 262 | 298 | 279 | 290 | 295 | 5 | 1.8 |
| | Imports | 970 | 792 | 926 | 1,070 | 1,127 | 58 | 5.4 |
| | Trade balance | –707 | –494 | –647 | –780 | –833 | –52 | –6.7 |
| MM016 | Household glassware: | | | | | | | |
| | Exports | 236 | 215 | 247 | 244 | 271 | 27 | 11.1 |
| | Imports | 823 | 632 | 758 | 776 | 855 | 78 | 10.1 |
| | Trade balance | –586 | –417 | –512 | –533 | –584 | –51 | –9.7 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM017 | Miscellaneous glass products: | | | | | | | |
| | Exports | 828 | 686 | 877 | 886 | 1,825 | 939 | 106.0 |
| | Imports | 990 | 789 | 954 | 1,049 | 1,940 | 891 | 85.0 |
| | Trade balance | –162 | –103 | –77 | –163 | –115 | 48 | 29.2 |
| MM018 | Fiberglass insulation products: | | | | | | | |
| | Exports | 121 | 205 | 127 | 172 | 222 | 50 | 29.1 |
| | Imports | 118 | 73 | 73 | 115 | 142 | 26 | 22.9 |
| | Trade balance | 4 | 131 | 54 | 56 | 80 | 24 | 41.9 |
| MM019 | Natural and synthetic gemstones: | | | | | | | |
| | Exports | 6,248 | 2,447 | 3,303 | 3,684 | 3,623 | –60 | –1.6 |
| | Imports | 21,072 | 13,608 | 19,730 | 23,625 | 21,597 | –2,029 | –8.6 |
| | Trade balance | –14,823 | –11,161 | –16,427 | –19,942 | –17,974 | 1,968 | 9.9 |
| MM020 | Precious metals and non–numismatic coins: | | | | | | | |
| | Exports | 26,534 | 20,699 | 28,033 | 42,230 | 42,762 | 531 | 1.3 |
| | Imports | 18,750 | 16,287 | 23,701 | 33,423 | 32,257 | –1,166 | –3.5 |
| | Trade balance | 7,784 | 4,412 | 4,332 | 8,808 | 10,505 | 1,697 | 19.3 |
| MM020A | Unrefined and refined gold: | | | | | | | |
| | Exports | 16,276 | 11,918 | 14,698 | 24,134 | 33,339 | 9,204 | 38.1 |
| | Imports | 5,454 | 7,928 | 11,647 | 14,330 | 15,912 | 1,582 | 11.0 |
| | Trade balance | 10,821 | 3,990 | 3,052 | 9,805 | 17,426 | 7,622 | 77.7 |
| MM021 | Primary iron products: | | | | | | | |
| | Exports | 19 | 7 | 18 | 38 | 12 | –26 | –68.2 |
| | Imports | 3,856 | 1,184 | 2,149 | 2,916 | 2,925 | 9 | 0.3 |
| | Trade balance | –3,837 | –1,176 | –2,131 | –2,878 | –2,913 | –35 | –1.2 |
| MM022 | Ferroalloys: | | | | | | | |
| | Exports | 220 | 128 | 165 | 171 | 143 | –27 | –16.1 |
| | Imports | 4,310 | 1,062 | 2,668 | 2,930 | 2,899 | –32 | –1.1 |
| | Trade balance | –4,090 | –935 | –2,503 | –2,760 | –2,756 | 4 | 0.2 |
| MM023 | Iron and steel waste and scrap: | | | | | | | |
| | Exports | 10,384 | 7,125 | 8,399 | 11,398 | 9,449 | –1,949 | –17.1 |
| | Imports | 1,456 | 817 | 1,423 | 1,655 | 1,605 | –50 | –3.0 |
| | Trade balance | 8,928 | 6,307 | 6,975 | 9,743 | 7,844 | –1,899 | –19.5 |
| MM024 | Abrasive and ferrous products: | | | | | | | |
| | Exports | 700 | 528 | 774 | 855 | 806 | –49 | –5.7 |
| | Imports | 1,084 | 745 | 1,039 | 1,218 | 1,184 | –34 | –2.8 |
| | Trade balance | –384 | –217 | –265 | –364 | –378 | –15 | –4.1 |
| MM024A | Abrasive products: | | | | | | | |
| | Exports | 424 | 339 | 486 | 544 | 506 | –38 | –6.9 |
| | Imports | 716 | 536 | 683 | 770 | 803 | 33 | 4.3 |
| | Trade balance | –292 | –197 | –197 | –226 | –297 | –71 | –31.5 |
| MM025 | Steel mill products: | | | | | | | |
| | Exports | 16,737 | 10,648 | 14,086 | 16,647 | 16,965 | 318 | 1.9 |
| | Imports | 36,870 | 16,995 | 22,928 | 30,765 | 34,303 | 3,538 | 11.5 |
| | Trade balance | –20,133 | –6,347 | –8,842 | –14,118 | –17,337 | –3,220 | –22.8 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM025A | Ingots, blooms, billets, and slabs of carbon and alloy steels: | | | | | | | |
| | Exports | 633 | 459 | 474 | 818 | 632 | –186 | –22.7 |
| | Imports | 4,231 | 891 | 2,535 | 4,192 | 4,109 | –83 | –2.0 |
| | Trade balance | –3,598 | –432 | –2,060 | –3,375 | –3,477 | –103 | –3.0 |
| MM025B | Plates, sheets, and strips of carbon and alloy steels: | | | | | | | |
| | Exports | 6,205 | 3,940 | 5,137 | 5,976 | 5,744 | –232 | –3.9 |
| | Imports | 8,781 | 4,480 | 6,133 | 7,934 | 8,726 | 792 | 10.0 |
| | Trade balance | –2,577 | –540 | –997 | –1,958 | –2,982 | –1,024 | –52.3 |
| MM025C | Bars, rods, and light shapes of carbon and alloy steels: | | | | | | | |
| | Exports | 1,706 | 989 | 1,536 | 1,860 | 1,826 | –35 | –1.9 |
| | Imports | 3,588 | 1,472 | 2,362 | 3,110 | 3,466 | 356 | 11.4 |
| | Trade balance | –1,881 | –483 | –825 | –1,250 | –1,640 | –390 | –31.2 |
| MM025D | Angles, shapes, and sections of carbon and alloy steels: | | | | | | | |
| | Exports | 1,086 | 459 | 659 | 1,007 | 1,112 | 105 | 10.5 |
| | Imports | 885 | 394 | 516 | 631 | 573 | –58 | –9.1 |
| | Trade balance | 201 | 65 | 143 | 376 | 539 | 163 | 43.3 |
| MM025E | Wire of carbon and alloy steels: | | | | | | | |
| | Exports | 293 | 198 | 270 | 287 | 258 | –30 | –10.3 |
| | Imports | 840 | 493 | 665 | 758 | 807 | 49 | 6.4 |
| | Trade balance | –547 | –295 | –395 | –471 | –549 | –78 | –16.7 |
| MM025F | Ingots, blooms, billets, and slabs of stainless steels: | | | | | | | |
| | Exports | 139 | 101 | 97 | 159 | 173 | 14 | 8.6 |
| | Imports | 546 | 204 | 355 | 505 | 513 | 8 | 1.7 |
| | Trade balance | –406 | –104 | –258 | –346 | –340 | 5 | 1.5 |
| MM025G | Plates, sheets, and strips of stainless steels: | | | | | | | |
| | Exports | 1,360 | 841 | 1,365 | 1,441 | 1,282 | –159 | –11.1 |
| | Imports | 1,976 | 670 | 1,423 | 1,830 | 1,771 | –59 | –3.2 |
| | Trade balance | –616 | 171 | –58 | –389 | –489 | –100 | –25.8 |
| MM025H | Bars, rods, and light shapes of stainless steels: | | | | | | | |
| | Exports | 323 | 200 | 271 | 398 | 382 | –16 | –4.1 |
| | Imports | 814 | 362 | 564 | 849 | 800 | –50 | –5.8 |
| | Trade balance | –491 | –162 | –293 | –451 | –417 | 33 | 7.4 |
| MM025I | Angles, shapes, and sections of stainless steels: | | | | | | | |
| | Exports | 19 | 11 | 17 | 17 | 22 | 5 | 29.3 |
| | Imports | 31 | 17 | 31 | 36 | 31 | –5 | –13.3 |
| | Trade balance | –12 | –6 | –14 | –19 | –9 | 10 | 51.8 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM025J | Wire of stainless steels: | | | | | | | |
| | Exports | 71 | 59 | 86 | 109 | 111 | 1 | 1.3 |
| | Imports | 245 | 126 | 205 | 248 | 239 | –9 | –3.6 |
| | Trade balance | –173 | –67 | –119 | –138 | –128 | 10 | 7.4 |
| MM025K | Rails and accessories of carbon and alloy steels: | | | | | | | |
| | Exports | 339 | 209 | 210 | 250 | 327 | 78 | 31.1 |
| | Imports | 436 | 313 | 327 | 396 | 442 | 46 | 11.5 |
| | Trade balance | –97 | –104 | –117 | –146 | –114 | 32 | 21.9 |
| MM025L | Pipes and tubes of carbon and alloy steels: | | | | | | | |
| | Exports | 3,604 | 2,565 | 3,042 | 3,204 | 3,895 | 691 | 21.6 |
| | Imports | 12,933 | 6,718 | 6,798 | 8,952 | 11,324 | 2,371 | 26.5 |
| | Trade balance | –9,328 | –4,153 | –3,756 | –5,748 | –7,429 | –1,680 | –29.2 |
| MM025M | Pipes and tubes of stainless steels: | | | | | | | |
| | Exports | 416 | 260 | 294 | 406 | 443 | 37 | 9.1 |
| | Imports | 1,102 | 693 | 675 | 853 | 1,026 | 173 | 20.2 |
| | Trade balance | –686 | –433 | –381 | –447 | –583 | –136 | –30.4 |
| MM025N | Tool steels: | | | | | | | |
| | Exports | 544 | 358 | 627 | 714 | 759 | 45 | 6.3 |
| | Imports | 464 | 161 | 339 | 470 | 477 | 7 | 1.4 |
| | Trade balance | 80 | 197 | 288 | 244 | 282 | 38 | 15.7 |
| MM026 | Steel pipe and tube fittings and certain cast products: | | | | | | | |
| | Exports | 1,657 | 1,291 | 1,537 | 1,692 | 1,835 | 143 | 8.4 |
| | Imports | 1,928 | 1,246 | 1,447 | 1,992 | 2,487 | 495 | 24.8 |
| | Trade balance | –272 | 45 | 90 | –299 | –651 | –352 | –117.5 |
| MM027 | Fabricated structurals: | | | | | | | |
| | Exports | 590 | 420 | 500 | 582 | 727 | 145 | 24.8 |
| | Imports | 2,140 | 1,366 | 1,215 | 1,211 | 1,893 | 681 | 56.3 |
| | Trade balance | –1,550 | –946 | –714 | –629 | –1,166 | –537 | –85.3 |
| MM028 | Metal construction components: | | | | | | | |
| | Exports | 1,306 | 1,147 | 1,227 | 1,428 | 1,802 | 374 | 26.2 |
| | Imports | 2,767 | 1,939 | 1,618 | 1,744 | 2,156 | 412 | 23.6 |
| | Trade balance | –1,461 | –792 | –391 | –317 | –354 | –38 | –11.9 |
| MM029 | Metallic containers: | | | | | | | |
| | Exports | 1,461 | 1,333 | 1,479 | 1,592 | 1,648 | 56 | 3.5 |
| | Imports | 1,165 | 1,288 | 1,038 | 1,193 | 1,408 | 215 | 18.0 |
| | Trade balance | 296 | 45 | 441 | 399 | 240 | –159 | –39.9 |
| MM030 | Wire products of base metal: | | | | | | | |
| | Exports | 1,282 | 1,124 | 1,413 | 1,629 | 1,755 | 126 | 7.7 |
| | Imports | 2,811 | 1,731 | 2,105 | 2,499 | 2,792 | 293 | 11.7 |
| | Trade balance | –1,529 | –607 | –692 | –870 | –1,037 | –167 | –19.2 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM031 | Miscellaneous products of base metal: | | | | | | | |
| | Exports | 7,644 | 5,997 | 7,087 | 8,066 | 8,817 | 750 | 9.3 |
| | Imports | 12,915 | 9,686 | 11,889 | 13,630 | 14,938 | 1,308 | 9.6 |
| | Trade balance | –5,271 | –3,689 | –4,802 | –5,564 | –6,122 | –558 | –10.0 |
| MM032 | Industrial fasteners of base metal: | | | | | | | |
| | Exports | 2,457 | 1,962 | 2,446 | 2,854 | 3,133 | 279 | 9.8 |
| | Imports | 4,098 | 2,561 | 3,490 | 4,234 | 4,679 | 444 | 10.5 |
| | Trade balance | –1,641 | –599 | –1,044 | –1,380 | –1,545 | –165 | –12.0 |
| MM033 | Cooking and kitchen ware: | | | | | | | |
| | Exports | 277 | 221 | 253 | 256 | 284 | 28 | 10.9 |
| | Imports | 2,505 | 2,180 | 2,683 | 2,676 | 2,781 | 105 | 3.9 |
| | Trade balance | –2,228 | –1,960 | –2,430 | –2,420 | –2,497 | –77 | –3.2 |
| MM034 | Metal and ceramic sanitary ware: | | | | | | | |
| | Exports | 221 | 193 | 202 | 206 | 190 | –17 | –8.1 |
| | Imports | 1,370 | 1,030 | 1,183 | 1,214 | 1,331 | 117 | 9.6 |
| | Trade balance | –1,149 | –836 | –981 | –1,008 | –1,141 | –133 | –13.2 |
| MM035 | Construction castings and other cast–iron articles: | | | | | | | |
| | Exports | 68 | 53 | 64 | 85 | 80 | –5 | –6.3 |
| | Imports | 241 | 139 | 168 | 229 | 253 | 24 | 10.5 |
| | Trade balance | –173 | –86 | –104 | –144 | –174 | –29 | –20.3 |
| MM036 | Copper and related articles: | | | | | | | |
| | Exports | 6,691 | 4,636 | 7,189 | 8,841 | 8,738 | –103 | –1.2 |
| | Imports | 11,153 | 6,125 | 8,609 | 11,158 | 9,735 | –1,424 | –12.8 |
| | Trade balance | –4,462 | –1,488 | –1,420 | –2,318 | –997 | 1,321 | 57.0 |
| MM036A | Unrefined and refined copper: | | | | | | | |
| | Exports | 246 | 452 | 579 | 243 | 754 | 511 | 210.4 |
| | Imports | 6,038 | 3,403 | 4,489 | 5,840 | 4,938 | –902 | –15.5 |
| | Trade balance | –5,792 | –2,951 | –3,909 | –5,597 | –4,183 | 1,414 | 25.3 |
| MM036B | Copper alloy plate, sheet, and strip: | | | | | | | |
| | Exports | 333 | 193 | 263 | 288 | 275 | –13 | –4.4 |
| | Imports | 198 | 119 | 225 | 255 | 254 | –1 | –0.3 |
| | Trade balance | 135 | 73 | 38 | 32 | 20 | –12 | –37.0 |
| MM037 | Unwrought aluminum: | | | | | | | |
| | Exports | 4,355 | 2,673 | 3,930 | 4,977 | 4,418 | –559 | –11.2 |
| | Imports | 9,168 | 5,761 | 7,180 | 8,678 | 8,049 | –629 | –7.3 |
| | Trade balance | –4,813 | –3,089 | –3,250 | –3,701 | –3,631 | 70 | 1.9 |
| MM037A | Primary and secondary aluminum: | | | | | | | |
| | Exports | 996 | 620 | 921 | 1,134 | 1,056 | –78 | –6.9 |
| | Imports | 7,853 | 5,021 | 6,163 | 7,471 | 6,839 | –632 | –8.5 |
| | Trade balance | –6,857 | –4,401 | –5,242 | –6,337 | –5,783 | 554 | 8.7 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM038 | Aluminum mill products: | | | | | | | |
| | Exports | 5,232 | 3,671 | 4,235 | 5,305 | 5,526 | 221 | 4.2 |
| | Imports | 5,112 | 3,330 | 4,397 | 4,712 | 4,572 | –140 | –3.0 |
| | Trade balance | 120 | 341 | –162 | 594 | 955 | 361 | 60.8 |
| MM038A | Aluminum bars, rods, and profiles: | | | | | | | |
| | Exports | 592 | 431 | 534 | 654 | 736 | 82 | 12.5 |
| | Imports | 825 | 783 | 899 | 531 | 620 | 89 | 16.8 |
| | Trade balance | –232 | –352 | –365 | 124 | 116 | –8 | –6.1 |
| MM038B | Aluminum wire: | | | | | | | |
| | Exports | 207 | 132 | 163 | 187 | 154 | –33 | –17.5 |
| | Imports | 574 | 321 | 387 | 491 | 644 | 153 | 31.2 |
| | Trade balance | –366 | –189 | –224 | –304 | –490 | –186 | –61.1 |
| MM038C | Aluminum plate, sheet, and strip: | | | | | | | |
| | Exports | 3,431 | 2,397 | 2,699 | 3,426 | 3,652 | 226 | 6.6 |
| | Imports | 2,590 | 1,423 | 2,104 | 2,544 | 2,235 | –308 | –12.1 |
| | Trade balance | 841 | 974 | 595 | 883 | 1,417 | 535 | 60.6 |
| MM038D | Aluminum foil: | | | | | | | |
| | Exports | 577 | 460 | 538 | 714 | 603 | –111 | –15.6 |
| | Imports | 809 | 591 | 751 | 867 | 795 | –72 | –8.3 |
| | Trade balance | –232 | –131 | –213 | –153 | –192 | –39 | –25.6 |
| MM038E | Aluminum tubes, pipes, and fittings: | | | | | | | |
| | Exports | 385 | 226 | 269 | 296 | 365 | 69 | 23.4 |
| | Imports | 271 | 190 | 210 | 232 | 231 | ([a]) | –0.2 |
| | Trade balance | 113 | 36 | 59 | 64 | 134 | 70 | 108.3 |
| MM039 | Lead and related articles: | | | | | | | |
| | Exports | 340 | 283 | 278 | 293 | 253 | –40 | –13.7 |
| | Imports | 850 | 509 | 708 | 897 | 892 | –5 | –0.6 |
| | Trade balance | –510 | –225 | –431 | –604 | –639 | –35 | –5.8 |
| MM039A | Refined lead: | | | | | | | |
| | Exports | 101 | 61 | 62 | 29 | 33 | 4 | 12.9 |
| | Imports | 330 | 213 | 258 | 299 | 344 | 46 | 15.3 |
| | Trade balance | –228 | –152 | –196 | –269 | –311 | –42 | –15.5 |
| MM040 | Zinc and related articles: | | | | | | | |
| | Exports | 272 | 185 | 289 | 315 | 312 | –3 | –0.9 |
| | Imports | 1,765 | 1,254 | 1,703 | 1,966 | 1,611 | –356 | –18.1 |
| | Trade balance | –1,494 | –1,069 | –1,414 | –1,651 | –1,298 | 353 | 21.4 |
| MM040A | Unwrought zinc: | | | | | | | |
| | Exports | 3 | 3 | 4 | 20 | 15 | –5 | –24.4 |
| | Imports | 1,479 | 1,076 | 1,449 | 1,605 | 1,318 | –288 | –17.9 |
| | Trade balance | –1,476 | –1,073 | –1,445 | –1,586 | –1,303 | 283 | 17.8 |
| MM041 | Certain base metals and chemical elements: | | | | | | | |
| | Exports | 4,453 | 2,735 | 3,227 | 4,291 | 4,361 | 71 | 1.7 |
| | Imports | 7,253 | 3,822 | 6,106 | 7,563 | 6,744 | –818 | –10.8 |
| | Trade balance | –2,800 | –1,087 | –2,879 | –3,272 | –2,383 | 889 | 27.2 |

See footnote(s) at end of table.

**APPENDIX TABLE B.8 Minerals and metals: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| MM041A | Titanium ingot: | | | | | | | |
| | Exports | 20 | 20 | 10 | 6 | 71 | 65 | 1,076.3 |
| | Imports | 37 | 13 | 4 | 12 | 9 | –4 | –31.8 |
| | Trade balance | –17 | 6 | 6 | –6 | 62 | 69 | ([b]) |
| MM042 | Nonpowered handtools: | | | | | | | |
| | Exports | 3,570 | 2,734 | 3,538 | 4,078 | 4,101 | 23 | 0.6 |
| | Imports | 4,886 | 3,628 | 4,786 | 5,445 | 6,088 | 642 | 11.8 |
| | Trade balance | –1,316 | –894 | –1,248 | –1,368 | –1,987 | –619 | –45.3 |
| MM043 | Certain cutlery, sewing implements, and related products: | | | | | | | |
| | Exports | 671 | 562 | 625 | 636 | 603 | –33 | –5.2 |
| | Imports | 1,491 | 1,253 | 1,525 | 1,720 | 1,763 | 43 | 2.5 |
| | Trade balance | –820 | –691 | –900 | –1,084 | –1,160 | –76 | –7.0 |
| MM044 | Table flatware and related products: | | | | | | | |
| | Exports | 51 | 26 | 22 | 28 | 26 | –2 | –8.0 |
| | Imports | 556 | 444 | 530 | 560 | 523 | –37 | –6.6 |
| | Trade balance | –505 | –418 | –508 | –532 | –498 | 34 | 6.5 |
| MM045 | Certain builders' hardware: | | | | | | | |
| | Exports | 1,054 | 942 | 1,002 | 1,053 | 1,113 | 60 | 5.7 |
| | Imports | 4,004 | 3,119 | 3,646 | 3,848 | 4,026 | 178 | 4.6 |
| | Trade balance | –2,950 | –2,177 | –2,644 | –2,795 | –2,913 | –118 | –4.2 |

*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.
[b]Not meaningful for purposes of comparison.

**APPENDIX TABLE B.9 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TX001 | Fibers and yarns, except raw cotton and raw wool: | | | | | | | |
| | Exports | 4,344 | 3,496 | 4,444 | 5,610 | 4,814 | –796 | –14.2 |
| | Imports | 3,552 | 2,638 | 3,479 | 3,980 | 3,423 | –557 | –14.0 |
| | Trade balance | 792 | 857 | 965 | 1,630 | 1,391 | –239 | –14.7 |
| TX002 | Fabrics: | | | | | | | |
| | Exports | 6,443 | 4,917 | 5,878 | 6,285 | 6,075 | –210 | –3.3 |
| | Imports | 5,891 | 4,410 | 5,444 | 6,241 | 6,380 | 140 | 2.2 |
| | Trade balance | 552 | 507 | 434 | 44 | –306 | –350 | ([a]) |
| TX002A | Broadwoven fabrics: | | | | | | | |
| | Exports | 1,630 | 1,261 | 1,417 | 1,637 | 1,565 | –72 | –4.4 |
| | Imports | 2,600 | 1,708 | 2,114 | 2,481 | 2,507 | 26 | 1.0 |
| | Trade balance | –970 | –447 | –697 | –844 | –942 | –98 | –11.6 |
| TX002B | Knit fabrics: | | | | | | | |
| | Exports | 1,534 | 891 | 1,036 | 1,026 | 991 | –35 | –3.4 |
| | Imports | 779 | 652 | 727 | 841 | 959 | 118 | 14.0 |
| | Trade balance | 755 | 238 | 309 | 185 | 32 | –153 | –82.7 |
| TX002C | Specialty fabrics: | | | | | | | |
| | Exports | 442 | 374 | 405 | 383 | 368 | –15 | –4.0 |
| | Imports | 500 | 380 | 445 | 488 | 518 | 30 | 6.2 |
| | Trade balance | –58 | –7 | –41 | –105 | –151 | –46 | –43.5 |
| TX002D | Coated and other fabrics: | | | | | | | |
| | Exports | 1,143 | 925 | 1,246 | 1,312 | 1,380 | 68 | 5.1 |
| | Imports | 1,042 | 864 | 1,168 | 1,356 | 1,436 | 80 | 5.9 |
| | Trade balance | 101 | 61 | 78 | –44 | –57 | –12 | –27.6 |
| TX002E | Glass fiber fabrics: | | | | | | | |
| | Exports | 248 | 219 | 237 | 251 | 0 | –251 | –100.0 |
| | Imports | 194 | 120 | 143 | 170 | 0 | –170 | –100.0 |
| | Trade balance | 54 | 99 | 94 | 81 | 0 | –81 | –100.0 |
| TX002F | Other fabrics: | | | | | | | |
| | Exports | 1,445 | 1,248 | 1,537 | 1,676 | 1,772 | 96 | 5.7 |
| | Imports | 776 | 685 | 847 | 905 | 961 | 55 | 6.1 |
| | Trade balance | 670 | 563 | 691 | 771 | 811 | 40 | 5.2 |
| TX003 | Carpets and rugs: | | | | | | | |
| | Exports | 1,061 | 821 | 959 | 1,025 | 1,057 | 32 | 3.1 |
| | Imports | 1,902 | 1,475 | 1,732 | 1,904 | 2,030 | 126 | 6.6 |
| | Trade balance | –841 | –654 | –773 | –880 | –974 | –94 | –10.7 |
| TX004 | Home furnishings: | | | | | | | |
| | Exports | 456 | 363 | 398 | 436 | 500 | 64 | 14.7 |
| | Imports | 8,377 | 7,553 | 9,058 | 9,208 | 9,253 | 45 | 0.5 |
| | Trade balance | –7,921 | –7,190 | –8,660 | –8,772 | –8,753 | 19 | 0.2 |
| TX004A | Blankets: | | | | | | | |
| | Exports | 29 | 23 | 20 | 23 | 28 | 5 | 22.2 |
| | Imports | 597 | 616 | 735 | 740 | 751 | 12 | 1.6 |
| | Trade balance | –567 | –593 | –716 | –717 | –724 | –7 | –0.9 |

See footnote(s) at end of table.

**APPENDIX TABLE B.9 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TX004B | Pillowcases and sheets: | | | | | | | |
| | Exports | 65 | 46 | 53 | 65 | 71 | 5 | 8.0 |
| | Imports | 2,261 | 1,938 | 2,447 | 2,534 | 2,547 | 14 | 0.5 |
| | Trade balance | –2,197 | –1,893 | –2,394 | –2,468 | –2,477 | –8 | –0.3 |
| TX004C | Table/kitchen linens and towels: | | | | | | | |
| | Exports | 59 | 44 | 51 | 47 | 50 | 3 | 5.7 |
| | Imports | 2,123 | 1,852 | 2,151 | 2,196 | 2,257 | 61 | 2.8 |
| | Trade balance | –2,064 | –1,808 | –2,099 | –2,149 | –2,207 | –58 | –2.7 |
| TX004D | Curtains: | | | | | | | |
| | Exports | 82 | 78 | 80 | 91 | 110 | 19 | 20.7 |
| | Imports | 1,029 | 991 | 1,101 | 1,052 | 989 | –63 | –6.0 |
| | Trade balance | –947 | –913 | –1,021 | –961 | –879 | 82 | 8.5 |
| TX004E | Bedspreads and other furnishing articles: | | | | | | | |
| | Exports | 66 | 54 | 62 | 66 | 80 | 14 | 21.5 |
| | Imports | 1,236 | 1,112 | 1,383 | 1,509 | 1,563 | 54 | 3.6 |
| | Trade balance | –1,170 | –1,058 | –1,321 | –1,443 | –1,483 | –40 | –2.8 |
| TX004F | Pillows, cushions, and sleeping bags: | | | | | | | |
| | Exports | 155 | 118 | 131 | 143 | 160 | 18 | 12.4 |
| | Imports | 1,129 | 1,042 | 1,240 | 1,175 | 1,142 | –33 | –2.8 |
| | Trade balance | –974 | –924 | –1,108 | –1,032 | –982 | 50 | 4.9 |
| TX004G | Tapestries and other wall hangings: | | | | | | | |
| | Exports | 1 | 1 | 1 | 1 | 1 | (b) | 30.7 |
| | Imports | 3 | 2 | 2 | 3 | 4 | 1 | 21.8 |
| | Trade balance | –2 | –1 | –2 | –2 | –3 | (b) | –19.0 |
| TX005 | Apparel: | | | | | | | |
| | Exports | 3,190 | 2,922 | 3,197 | 3,337 | 3,452 | 115 | 3.4 |
| | Imports | 79,031 | 69,457 | 78,501 | 85,668 | 84,962 | –706 | –0.8 |
| | Trade balance | –75,841 | –66,534 | –75,304 | –82,331 | –81,510 | 821 | 1.0 |
| TX005A | Men's and boys' suits and sports coats: | | | | | | | |
| | Exports | 24 | 31 | 27 | 20 | 25 | 4 | 21.1 |
| | Imports | 1,237 | 949 | 1,014 | 1,201 | 1,304 | 103 | 8.6 |
| | Trade balance | –1,213 | –917 | –987 | –1,181 | –1,280 | –99 | –8.4 |
| TX005B | Men's and boys' coats and jackets: | | | | | | | |
| | Exports | 69 | 61 | 73 | 89 | 95 | 6 | 7.0 |
| | Imports | 2,759 | 2,299 | 2,636 | 3,183 | 2,970 | –213 | –6.7 |
| | Trade balance | –2,690 | –2,239 | –2,563 | –3,094 | –2,874 | 219 | 7.1 |
| TX005C | Men's and boys' trousers: | | | | | | | |
| | Exports | 217 | 216 | 234 | 258 | 265 | 7 | 2.6 |
| | Imports | 7,626 | 6,805 | 7,496 | 8,277 | 8,267 | –11 | –0.1 |
| | Trade balance | –7,409 | –6,589 | –7,263 | –8,019 | –8,002 | 17 | 0.2 |
| TX005D | Women's and girls' trousers: | | | | | | | |
| | Exports | 246 | 239 | 276 | 285 | 297 | 12 | 4.2 |
| | Imports | 9,305 | 8,043 | 8,663 | 8,965 | 9,082 | 117 | 1.3 |
| | Trade balance | –9,059 | –7,803 | –8,387 | –8,681 | –8,785 | –105 | –1.2 |

See footnote(s) at end of table.

**APPENDIX TABLE B.9 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TX005E | Shirts and blouses: | | | | | | | |
| | Exports | 556 | 525 | 556 | 587 | 671 | 85 | 14.4 |
| | Imports | 24,876 | 21,962 | 24,728 | 26,728 | 26,030 | –698 | –2.6 |
| | Trade balance | –24,320 | –21,437 | –24,172 | –26,141 | –25,358 | 783 | 3.0 |
| TX005F | Sweaters: | | | | | | | |
| | Exports | 43 | 27 | 33 | 29 | 32 | 3 | 10.4 |
| | Imports | 2,522 | 2,014 | 2,275 | 2,492 | 2,324 | –168 | –6.7 |
| | Trade balance | –2,479 | –1,987 | –2,242 | –2,463 | –2,292 | 171 | 6.9 |
| TX005G | Women's and girls' suits, skirts, and coats: | | | | | | | |
| | Exports | 163 | 158 | 146 | 145 | 144 | –1 | –0.8 |
| | Imports | 5,851 | 4,739 | 5,121 | 5,465 | 5,125 | –340 | –6.2 |
| | Trade balance | –5,688 | –4,581 | –4,975 | –5,320 | –4,981 | 339 | 6.4 |
| TX005H | Women's and girls' dresses: | | | | | | | |
| | Exports | 177 | 163 | 188 | 235 | 237 | 2 | 1.0 |
| | Imports | 3,176 | 3,098 | 3,679 | 4,339 | 4,619 | 280 | 6.4 |
| | Trade balance | –2,999 | –2,935 | –3,490 | –4,104 | –4,382 | –277 | –6.8 |
| TX005I | Robes, nightwear, and underwear: | | | | | | | |
| | Exports | 109 | 97 | 127 | 116 | 112 | –4 | –3.6 |
| | Imports | 5,444 | 4,683 | 5,464 | 5,704 | 5,619 | –85 | –1.5 |
| | Trade balance | –5,335 | –4,586 | –5,337 | –5,588 | –5,507 | 80 | 1.4 |
| TX005J | Hosiery: | | | | | | | |
| | Exports | 334 | 291 | 315 | 284 | 275 | –9 | –3.1 |
| | Imports | 1,565 | 1,509 | 1,831 | 1,947 | 2,031 | 83 | 4.3 |
| | Trade balance | –1,231 | –1,218 | –1,516 | –1,663 | –1,755 | –92 | –5.5 |
| TX005K | Body–supporting garments: | | | | | | | |
| | Exports | 45 | 47 | 60 | 74 | 68 | –6 | –8.1 |
| | Imports | 1,994 | 1,850 | 2,247 | 2,250 | 2,360 | 109 | 4.9 |
| | Trade balance | –1,949 | –1,803 | –2,186 | –2,176 | –2,292 | –115 | –5.3 |
| TX005L | Neckwear, handkerchiefs, and scarves: | | | | | | | |
| | Exports | 24 | 20 | 20 | 26 | 28 | 2 | 7.3 |
| | Imports | 724 | 758 | 834 | 968 | 1,013 | 45 | 4.6 |
| | Trade balance | –701 | –738 | –813 | –942 | –985 | –43 | –4.6 |
| TX005M | Gloves, including gloves for sports: | | | | | | | |
| | Exports | 127 | 126 | 148 | 164 | 162 | –3 | –1.5 |
| | Imports | 3,658 | 3,234 | 3,874 | 4,517 | 4,709 | 192 | 4.3 |
| | Trade balance | –3,531 | –3,108 | –3,727 | –4,352 | –4,547 | –195 | –4.5 |
| TX005N | Headwear: | | | | | | | |
| | Exports | 157 | 128 | 140 | 162 | 192 | 30 | 18.5 |
| | Imports | 1,598 | 1,357 | 1,652 | 1,999 | 1,982 | –16 | –0.8 |
| | Trade balance | –1,441 | –1,229 | –1,512 | –1,837 | –1,791 | 46 | 2.5 |
| TX005O | Leather apparel and accessories: | | | | | | | |
| | Exports | 202 | 154 | 145 | 137 | 139 | 2 | 1.2 |
| | Imports | 1,091 | 841 | 934 | 926 | 954 | 28 | 3.0 |
| | Trade balance | –890 | –687 | –789 | –789 | –815 | –26 | –3.3 |

See footnote(s) at end of table.

**APPENDIX TABLE B.9 Textiles, apparel, and footwear: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TX005P | Fur apparel and other fur articles: | | | | | | | |
| | Exports | 30 | 19 | 15 | 15 | 19 | 3 | 20.4 |
| | Imports | 170 | 136 | 158 | 186 | 157 | –29 | –15.4 |
| | Trade balance | –140 | –117 | –143 | –171 | –139 | 32 | 18.7 |
| TX005Q | Rubber, plastic, and coated–fabric apparel: | | | | | | | |
| | Exports | 155 | 173 | 186 | 179 | 148 | –31 | –17.1 |
| | Imports | 368 | 445 | 603 | 640 | 762 | 121 | 18.9 |
| | Trade balance | –213 | –272 | –417 | –462 | –614 | –152 | –32.9 |
| TX005R | Nonwoven apparel: | | | | | | | |
| | Exports | 75 | 77 | 93 | 74 | 68 | –6 | –8.6 |
| | Imports | 547 | 500 | 554 | 591 | 628 | 37 | 6.3 |
| | Trade balance | –473 | –423 | –461 | –517 | –561 | –44 | –8.5 |
| TX005S | Other wearing apparel: | | | | | | | |
| | Exports | 438 | 370 | 415 | 458 | 476 | 18 | 4.0 |
| | Imports | 4,518 | 4,235 | 4,739 | 5,290 | 5,026 | –263 | –5.0 |
| | Trade balance | –4,081 | –3,865 | –4,324 | –4,832 | –4,550 | 282 | 5.8 |
| TX006 | Miscellaneous textile products: | | | | | | | |
| | Exports | 2,310 | 2,134 | 2,474 | 2,740 | 2,287 | –453 | –16.5 |
| | Imports | 5,575 | 5,047 | 5,984 | 6,609 | 6,582 | –27 | –0.4 |
| | Trade balance | –3,265 | –2,914 | –3,510 | –3,870 | –4,295 | –425 | –11.0 |
| FW001 | Footwear: | | | | | | | |
| | Exports | 673 | 620 | 728 | 832 | 824 | –7 | –0.9 |
| | Imports | 19,451 | 17,666 | 20,710 | 22,559 | 23,745 | 1,185 | 5.3 |
| | Trade balance | –18,778 | –17,046 | –19,982 | –21,728 | –22,920 | –1,193 | –5.5 |

*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.

**APPENDIX TABLE B.10 Transportation equipment: U.S. trade for industry/commodity groups and subgroups, 2008–12**

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TE001 | Aircraft engines and gas turbines: | | | | | | | |
| | Exports | 28,638 | 9,457 | 8,786 | 9,556 | 10,181 | 625 | 6.5 |
| | Imports | 16,444 | 14,558 | 14,807 | 16,946 | 19,292 | 2,346 | 13.8 |
| | Trade balance | 12,194 | –5,102 | –6,021 | –7,389 | –9,110 | –1,721 | –23.3 |
| TE002 | Internal combustion piston engines, other than for aircraft: | | | | | | | |
| | Exports | 16,984 | 11,556 | 16,199 | 18,117 | 18,937 | 820 | 4.5 |
| | Imports | 18,738 | 11,866 | 17,989 | 22,548 | 24,522 | 1,975 | 8.8 |
| | Trade balance | –1,754 | –310 | –1,790 | –4,431 | –5,586 | –1,155 | –26.1 |
| TE003 | Forklift trucks and similar industrial vehicles: | | | | | | | |
| | Exports | 3,333 | 1,576 | 2,163 | 2,848 | 3,046 | 198 | 7.0 |
| | Imports | 2,442 | 1,182 | 1,432 | 2,427 | 3,110 | 684 | 28.2 |
| | Trade balance | 891 | 394 | 732 | 421 | –64 | –485 | ([a]) |
| TE004 | Construction and mining equipment: | | | | | | | |
| | Exports | 29,603 | 19,777 | 22,010 | 27,971 | 29,959 | 1,988 | 7.1 |
| | Imports | 12,291 | 6,345 | 8,213 | 12,935 | 16,302 | 3,367 | 26.0 |
| | Trade balance | 17,312 | 13,432 | 13,797 | 15,036 | 13,656 | –1,380 | –9.2 |
| TE005 | Ball and rollers bearings: | | | | | | | |
| | Exports | 2,223 | 1,701 | 2,212 | 2,596 | 2,694 | 98 | 3.8 |
| | Imports | 2,800 | 1,927 | 2,753 | 3,553 | 3,864 | 311 | 8.8 |
| | Trade balance | –577 | –226 | –540 | –957 | –1,170 | –213 | –22.3 |
| TE006 | Primary cells and batteries and electric storage batteries: | | | | | | | |
| | Exports | 2,716 | 2,162 | 2,712 | 3,184 | 3,054 | –130 | –4.1 |
| | Imports | 3,628 | 2,985 | 3,701 | 4,102 | 4,512 | 409 | 10.0 |
| | Trade balance | –912 | –823 | –989 | –918 | –1,458 | –540 | –58.8 |
| TE007 | Ignition, starting, lighting, and other electrical equipment: | | | | | | | |
| | Exports | 2,115 | 1,867 | 2,426 | 2,749 | 3,022 | 273 | 9.9 |
| | Imports | 5,319 | 4,066 | 5,588 | 6,497 | 7,113 | 616 | 9.5 |
| | Trade balance | –3,204 | –2,199 | –3,162 | –3,748 | –4,091 | –343 | –9.2 |
| TE008 | Rail locomotive and rolling stock: | | | | | | | |
| | Exports | 2,935 | 2,140 | 2,410 | 3,053 | 3,659 | 606 | 19.9 |
| | Imports | 1,803 | 1,251 | 1,405 | 1,809 | 1,972 | 163 | 9.0 |
| | Trade balance | 1,132 | 888 | 1,005 | 1,244 | 1,687 | 443 | 35.7 |
| TE009 | Motor vehicles: | | | | | | | |
| | Exports | 56,898 | 35,963 | 48,940 | 59,454 | 65,669 | 6,215 | 10.5 |
| | Imports | 142,541 | 94,348 | 132,471 | 144,426 | 171,556 | 27,130 | 18.8 |
| | Trade balance | –85,642 | –58,386 | –83,531 | –84,972 | –105,887 | –20,915 | –24.6 |
| TE010 | Certain motor–vehicle parts: | | | | | | | |
| | Exports | 30,985 | 22,713 | 31,194 | 35,714 | 37,806 | 2,092 | 5.9 |
| | Imports | 49,190 | 35,296 | 51,903 | 59,875 | 69,605 | 9,729 | 16.2 |
| | Trade balance | –18,205 | –12,584 | –20,709 | –24,161 | –31,799 | –7,637 | –31.6 |

See footnote(s) at end of table.

**APPENDIX TABLE B.10 Transportation equipment: U.S. trade for industry/commodity groups and subgroups, 2008–12—*Continued***

| Code | Industry/commodity groups and subgroups | 2008 | 2009 | 2010 | 2011 | 2012 | Change, 2011 to 2012 Absolute | Change, 2011 to 2012 Percent |
|---|---|---|---|---|---|---|---|---|
| | | *Million dollars* | | | | | | |
| TE011 | Powersport vehicles: | | | | | | | |
| | Exports | 4,185 | 2,571 | 2,748 | 2,985 | 3,235 | 249 | 8.4 |
| | Imports | 5,343 | 2,988 | 2,317 | 3,251 | 3,866 | 615 | 18.9 |
| | Trade balance | –1,157 | –417 | 431 | –266 | –631 | –365 | –137.3 |
| TE011A | Motorcycles and mopeds: | | | | | | | |
| | Exports | 1,875 | 1,357 | 1,373 | 1,476 | 1,526 | 49 | 3.3 |
| | Imports | 3,921 | 2,341 | 1,618 | 2,420 | 2,873 | 453 | 18.7 |
| | Trade balance | –2,046 | –984 | –246 | –944 | –1,347 | –403 | –42.7 |
| TE012 | Trailers, semi–trailers, and parts: | | | | | | | |
| | Exports | 2,820 | 1,772 | 2,486 | 3,038 | 3,493 | 455 | 15.0 |
| | Imports | 1,387 | 906 | 1,202 | 1,911 | 2,117 | 206 | 10.8 |
| | Trade balance | 1,432 | 866 | 1,284 | 1,126 | 1,376 | 249 | 22.1 |
| TE013 | Aircraft, spacecraft, and related equipment: | | | | | | | |
| | Exports | 69,516 | 77,700 | 73,949 | 82,028 | 95,210 | 13,182 | 16.1 |
| | Imports | 21,539 | 18,339 | 18,931 | 21,546 | 24,107 | 2,560 | 11.9 |
| | Trade balance | 47,977 | 59,361 | 55,019 | 60,482 | 71,103 | 10,621 | 17.6 |
| TE014 | Ships, tugs, pleasure boats, and similar vessels: | | | | | | | |
| | Exports | 3,155 | 1,946 | 2,525 | 2,420 | 3,387 | 967 | 39.9 |
| | Imports | 1,862 | 1,510 | 1,804 | 1,395 | 2,005 | 610 | 43.8 |
| | Trade balance | 1,293 | 436 | 720 | 1,026 | 1,382 | 356 | 34.7 |
| TE015 | Motors and engines, except internal combustion, aircraft, or electric: | | | | | | | |
| | Exports | 1,409 | 1,183 | 1,641 | 1,875 | 2,420 | 545 | 29.1 |
| | Imports | 3,370 | 2,240 | 2,431 | 3,358 | 4,466 | 1,109 | 33.0 |
| | Trade balance | –1,962 | –1,057 | –789 | –1,483 | –2,047 | –564 | –38.0 |

*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.