



# U.S. Trade Deficit and the Impact of Changing Oil Prices

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January 13, 2009

Congressional Research Service

7-5700

[www.crs.gov](http://www.crs.gov)

RS22204

## Summary

Petroleum prices rose sharply in the first half of 2008, at one time reaching more than \$140 per barrel of crude oil. Since July, however, petroleum prices and import volumes have fallen at a historically rapid pace; in January 2009, prices of crude oil fell below \$40 per barrel. At the same time the average monthly volume of imports of energy-related petroleum products fell slightly. The sharp rise in the cost of energy imports added an estimated \$50 billion to the nation's trade deficit in 2006 and another \$28 billion in 2007. The fall in the cost of energy imports combined with the drop in import volumes as a result of the slowdown in economic activity has reversed the trend of rising energy imports costs and will sharply reduce the overall costs of U.S. energy imports for the rest of 2008. This report provides an estimate of the initial impact of the rising oil prices on the nation's merchandise trade deficit. This report will be updated as warranted by events.

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## Background

According to data published by the Census Bureau of the Department of Commerce,<sup>1</sup> the prices of petroleum products over the first half of 2008 rose sharply, generally rising considerably faster than the change in demand for those products, before falling at a historic rate. As a result, the price increases of imported energy-related petroleum products worsened the U.S. trade deficit in 2006 and 2007, and will again in 2008. Energy-related petroleum products is a term used by the Census Bureau that includes crude oil, petroleum preparations, and liquefied propane and butane gas. Crude oil comprises the largest share by far within this broad category of energy-related imports. The slowdown in the rate of growth in the U.S. economy is sharply reducing the amount of energy that the country imports and is helping to push down world energy prices. and, in isolation from other events, is placing upward pressure on the dollar against a broad range of other currencies. To the extent that the additions to the merchandise trade deficit are returned to the U.S. economy as payment for additional U.S. exports or to acquire such assets as securities or U.S. businesses, the U.S. trade deficit could be mitigated further.

**Table 1** presents summary data from the Census Bureau for the change in the volume, or quantity, of energy-related petroleum imports and the change in the price, or the value, of those imports for 2007 and for 2008. The data indicate that the United States imported 4.8 billion barrels of total energy-related petroleum products in 2007, valued at \$319 billion. In the January-November period of 2008, the quantity of energy-related petroleum imports fell by 5.0% compared with the comparable period in 2007; crude oil imports also fell by 3.6% from the same period in 2007. Year-over-year, the average value of energy-related petroleum products imports rose by 46%, while the average value of crude oil imports rose by 53.4%. As **Figure 1** shows, imports of energy-related petroleum products can vary sharply on a monthly basis, but averaged about 382 million barrels a month in the January-November period of 2008.

**Table 1. Summary Data of U.S. Imports of Energy-Related Petroleum Products, Including Oil (not seasonally adjusted)**

	January through November					
	2007		2008			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Percent change 2007 to 2008	Value (thousands of dollars)	Percent change 2007 to 2008
Total energy- related Petroleum Products	4,425,066	\$286,731,378	4,203,200	-5.0%	\$418,727,150	46.0%
Crude oil	3,392,732	\$212,543,857	3,271,302	-3.6%	\$326,010,401	53.4%

<sup>1</sup> Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services*, January 13, 2009. Table 17. The report and supporting tables are available at [http://www.census.gov/foreign-trade/Press-Release/current\\_press\\_release/ftdpress.pdf](http://www.census.gov/foreign-trade/Press-Release/current_press_release/ftdpress.pdf).

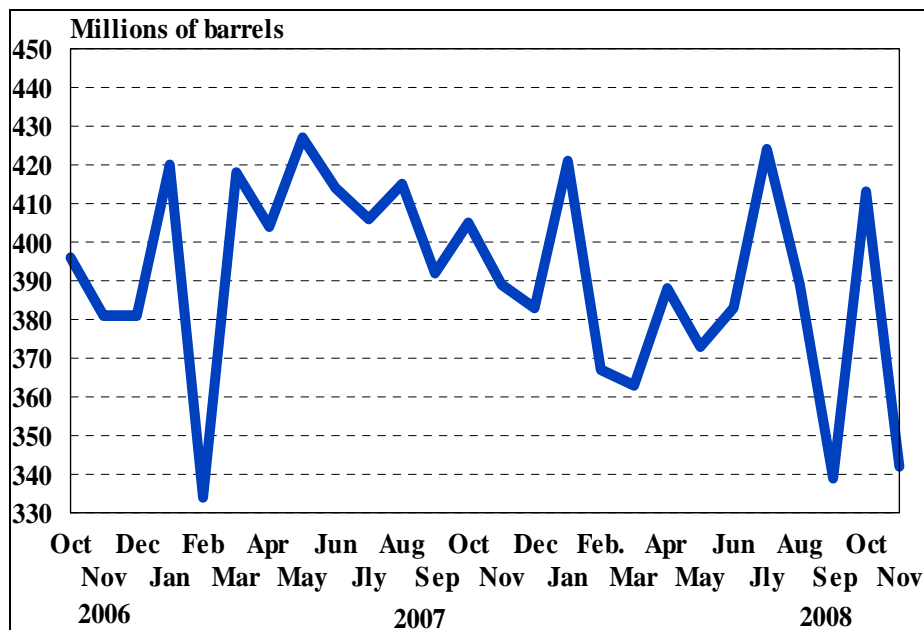
	January through December					
	2007 (Actual values)		2008 (Estimated values)			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Percent change 2007 to 2008	Value (thousands of dollars)	Percent change 2007 to 2008
Total energy-related Petroleum Products	4,807,811	\$318,822,423	4,566,755	-5.0%	\$465,591,194	46.0%
Crude oil	3,690,568	\$237,211,653	3,558,478	-3.6%	\$363,847,101	53.4%

**Source:** Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services*, January 13, 2009. Table 17.

**Note:** Estimates for January through December of 2008 were developed by CRS from data through November 2008 and data through 2007 published by the Census Bureau using a straight line extrapolation.

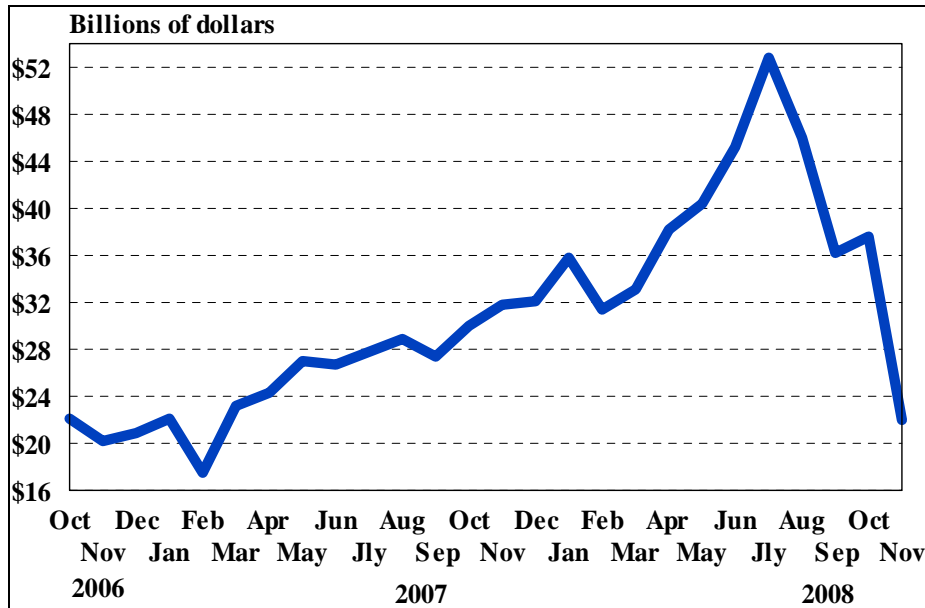
In value terms, energy-related imports rose from about \$291 billion in 2006 to \$319 in 2007, or an increase of 9.6% to account for about 17% of the value of total U.S. merchandise imports. Data for 2008 indicate that the sharp rise experienced in energy prices in 2007 continued in January through July 2008 and did not follow previous trends of falling during the winter months. As **Figure 2** shows, the cost of U.S. imports of energy-related petroleum products rose from about \$17 billion per month in early 2007 to \$53 billion a month in July 2008, but fell to \$22 billion in November 2008, reflecting a drop in the price and in the volume of imported oil. The average price of imported oil in November 2008 was down 16% from the average price in November 2007, and down 47% from the average price in July 2008, reflecting the sharp decrease in the price of imported oil in August through November, as indicated in **Table 2**.

**Figure 1. Quantity of U.S. Imports of Energy-Related Petroleum Products**



**Source:** Department of Commerce

**Figure 2. Value of U.S. Imports of Energy-Related Petroleum Products**



Source: Department of Commerce

**Table 2. U.S. Imports of Energy-Related Petroleum Products, Including Crude Oil (not seasonally adjusted)**

Period	Total energy-related petroleum products <sup>a</sup>		Crude oil			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Thousands of barrels per day (average)	Value (thousands of dollars)	Unit price (dollars)
<b>2007</b>						
Jan.- Dec.	4,807,811	\$318,822,423	3,690,568	10,111	\$237,211,653	\$64.28
January	419,828	22,065,916	321,272	10,364	16,763,529	52.18
February	334,586	17,471,845	256,750	9,170	13,001,677	50.64
March	418,262	23,186,425	318,783	10,283	16,941,702	53.15
April	404,329	24,344,989	305,965	10,199	17,514,576	57.24
May	427,007	27,038,265	322,212	10,394	19,128,841	59.37
June	414,174	26,723,896	321,757	10,725	19,623,027	60.99
July	406,277	27,755,742	310,556	10,018	20,361,977	65.57
August	414,665	28,897,623	317,585	10,245	21,647,893	68.16
September	391,646	27,435,637	302,410	10,080	20,700,725	68.45
October	404,808	30,039,497	315,071	10,164	22,869,846	72.59
November	389,483	31,771,542	300,371	10,112	23,990,094	79.87
December	382,745	32,091,045	297,836	9,608	24,667,796	82.82

Period	Total energy-related petroleum products <sup>a</sup>		Crude oil			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Thousands of barrels per day (average)	Value (thousands of dollars)	Unit price (dollars)
<b>2008</b>						
January	420,916	\$35,836,371	322,206	10,394	\$27,093,581	\$84.09
February	367,098	31,356,495	286,483	9,879	24,281,817	84.79
March	363,252	33,146,123	278,571	8,986	25,030,666	89.85
April	388,145	38,185,528	303,050	10,102	29,339,760	96.81
May	373,287	40,360,232	293,995	9,484	31,245,288	106.28
June	382,675	45,207,376	297,532	9,918	34,850,146	117.13
July	424,467	52,813,717	342,024	11,033	42,637,563	124.66
August	388,679	46,012,928	308,380	9,948	37,000,980	119.99
September	339,044	36,179,838	253,276	8,443	27,247,205	107.58
October	413,766	37,632,930	324,185	10,458	29,830,414	92.02
November	341,870	21,995,613	261,600	8,720	17,452,979	66.72

**Source:** Census Bureau, Department of Commerce. Report FT900, *U.S. International Transactions in Goods and Services*. January 13, 2009. Table 17.

a. Energy-related petroleum products is a term used by the Census Bureau and includes crude oil, petroleum preparations, and liquefied propane and butane gas.

As a result of the overall rise in the value of energy-related imports in 2007, the trade deficit of such imports rose to \$293 billion to account for 36% of the total \$815 billion U.S. trade deficit, up from one-fifth of the total trade deficit in less than two years. In January-November 2008, the trade deficit in energy-related imports amounted to \$364 billion, or 48% of the total U.S. trade deficit of \$763 billion for the eleven-month period.

The quantity of energy imports in 2007 fell by 1.5% below the quantity imported in 2006, but the total price of U.S. energy imports rose by about 10% in 2007 above that for 2006, largely as a result of the continued rise in the prices of imported energy in the October-December period of 2007. In testimony before Congress, Federal Reserve Board Chairman Ben Bernanke indicated that the rise in oil prices, along with other commodity prices, had increased the overall rate of inflation in the economy, such concerns have been eclipsed by the slowdown in the rate of growth in the economy.<sup>2</sup>

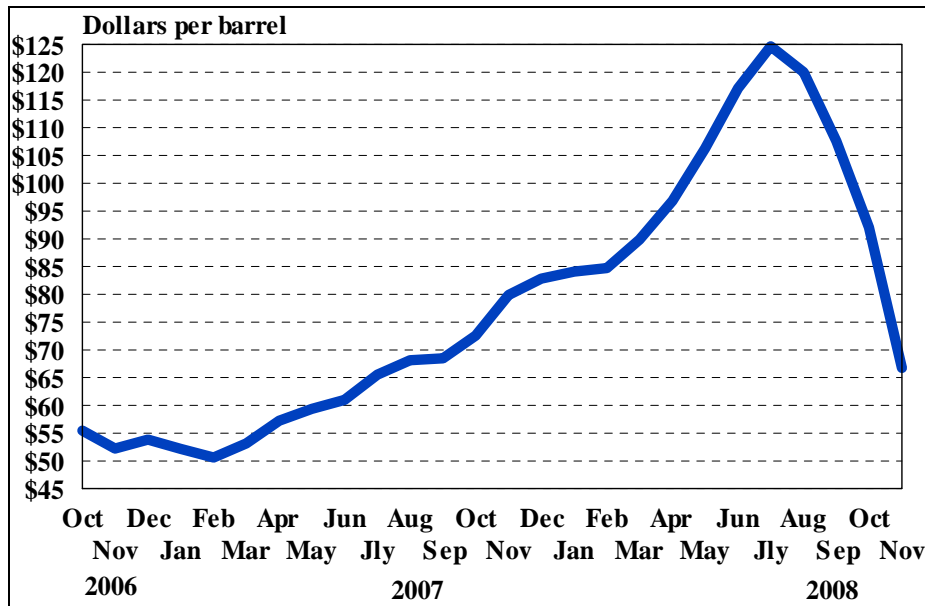
Crude oil comprises the largest share of energy-related petroleum products imports. According to Census Bureau data<sup>3</sup> as shown in **Table 2**, imports of crude oil fell from an average of 10.23 million barrels of crude oil imports per day in 2006 to an average of 10.15 million barrels per day in 2007, or a decrease of 1.2%. In December 2007, such imports averaged 9.7 million barrels per

<sup>2</sup> Bernanke, Ben, *The Economy and Financial Markets*, Testimony Before the Banking, Housing, and Urban Affairs Committee, U.S. Senate, February 14, 2008.

<sup>3</sup> Report FT900, *U.S. International Trade in Goods and Services*, January 13, 2009. Table 17.

day, or an increase of 2.5% over the volume of such imports recorded in December 2006. Data for crude oil imports in 2007 indicate that the total quantity of imported oil decreased by 1.2% from the comparable period in 2006. In December 2007, however, despite a 57% rise in the price of crude oil imports year over year, average crude oil imports rose by about 2.5% from December 2006. From June 2007 to June 2008, the average price of crude oil increased from \$61 per barrel to \$117 per barrel, or an increase of 92%, as shown in **Figure 3**. As a result, the value of U.S. crude oil imports rose from about \$19 billion a month in June 2007 to \$35 billion a month in June 2008.

**Figure 3. U.S. Import Price of Crude Oil**



Source: Department of Commerce

Data for the January-November 2008 period indicate that a number of factors combined to push oil prices to record levels in July 2008, before tumbling quickly. The sharp rise in prices combined with a small decrease in the volumes of oil imports experienced during the period combined to post a large jump in the overall cost of imported energy. At times, crude oil traded for nearly \$148 per barrel in July 2008, indicating that the cost of energy imports would have a significant impact on the overall costs of U.S. imports and on the value of the U.S. trade deficit. Since those record prices, the price per barrel of imported crude oil has fallen to under \$40 per barrel at times in January 2009. With an expected decrease in the volumes of energy-related petroleum products imports for the remainder of 2008 due to a slowdown in economic activity and at an average price of \$90 per barrel, energy-related import prices could add about \$90 billion to the trade deficit on an annual basis, pushing the annual trade deficit to nearly \$900 billion.

## Issues for Congress

The sharp rise in prices of energy imports experienced since early 2007 is expected to affect the U.S. rate of inflation, likely will have a slightly negative impact on the rate of economic growth in 2008, and pose a number of policy issues for Congress. Various factors are combining to push up the cost of energy imports to record levels at a time when they traditionally have followed a



cyclical pattern that has caused energy prices to decline in the winter. A slowdown in the rate of economic growth in the United States in the spring and summer likely would lessen demand for energy imports and might help restrain the prices of energy imports. An important factor, however, will be the impact Atlantic hurricanes have on the production of crude oil in the Gulf of Mexico. Most immediately, higher prices for energy imports will worsen the nation's merchandise trade deficit, add to inflationary pressures, and have a disproportionate impact on the energy-intensive sectors of the economy and on households on fixed incomes.

Over the long run, a sustained increase in the prices of energy imports will permanently increase the nation's merchandise trade deficit, although some of this impact could be offset if some of the dollars are returned to the U.S. economy through increased purchases of U.S. goods and services or through purchases of such other assets as securities or U.S. businesses. Some of the return in dollars likely will come through sovereign wealth funds (SWFs), or funds controlled and managed by foreign governments, as foreign exchange reserves boost the dollar holdings of such funds. Such investments likely will add to concerns about the national security implications of foreign acquisitions of U.S. firms, especially by foreign governments, and to concerns about the growing share of outstanding U.S. Treasury securities that are owned by foreigners. Over the long-run it is possible for the economy to adjust to the higher prices of energy imports by improving its energy efficiency, finding alternative sources of energy, or searching out additional supplies of energy. There may well be increased pressure applied to Congress to assist in this process. For Congress, the increase in the nation's merchandise trade deficit could add to existing inflationary pressures and complicate efforts to stimulate the economy should the rate of economic growth slow down. In particular, Congress, through its direct role in making economic policy and its oversight role over the Federal Reserve, could face the dilemma of rising inflation, which generally is treated by raising interest rates to tighten credit, and a slowing rate of economic growth, which is usually addressed by lowering interest rates to stimulate investment. A sharp rise in the trade deficit may also add to pressures for Congress to examine the causes of the deficit and to address the underlying factors that are generating that deficit. In addition, the rise in prices of energy imports could add to concerns about the nation's reliance on foreign supplies for energy imports and add impetus to examining the nation's energy strategy.

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