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CRS Report for Congress

U.S. Trade Deficit and the Impact of Rising Oil Prices

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Summary

Petroleum prices have risen sharply since early 2005. At the same time the average amount of imports of energy-related petroleum products has fallen slightly. The combination of sharply rising prices and a slightly lower level of imports of energy-related petroleum products translates into an escalating cost for those imports. This rising cost added an estimated $70 billion to the nation's trade deficit in 2005 and $50 billion in 2006. Imported energy prices moderated in early 2007, before rising again through the summer, following a pattern of rising energy import prices in the spring and summer. 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.

Background

According to data published by the Census Bureau of the Department of Commerce,[1] the prices of petroleum products over the past year have fluctuated sharply, at times rising considerably faster than the change in demand for those products. As a result, the price increases of imported energy-related petroleum products worsened the U.S. trade deficit in 2005 and 2006, and may well do so again in 2007. 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 increase in the trade deficit is expected to have a slightly negative impact on U.S. gross domestic product (GDP) and could place further downward 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

[1] Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services,* September 11, 2007. Table 17. The report and supporting tables are available at [http://www.census.gov/foreign-trade/Press-Release/current_press_release/ftdpress.pdf].

as payment for additional U.S. exports or to acquire such assets as securities or U.S. businesses, some of the negative effects could be mitigated.

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 2006 and for 2007. The data indicate that the United States imported 4.9 billion barrels of total energy-related petroleum products in 2006, valued at $291 billion. Through July 2007, the quantity of energy-related petroleum imports fell by 1.7% compared with the comparable period in 2006, while crude oil imports fell by 1.2% from the same period in 2006, reflecting a milder-than-normal winter. During the same period, the value of energy-related petroleum products imports fell by 2.2%, while the value of crude oil imports fell by 2.4%. As **Figure 1** shows, imports of energy-related petroleum products can vary sharply on a monthly basis, but averaged about 410 barrels a month in 2006 and about 403 barrels a month in the January-July period of 2007.

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

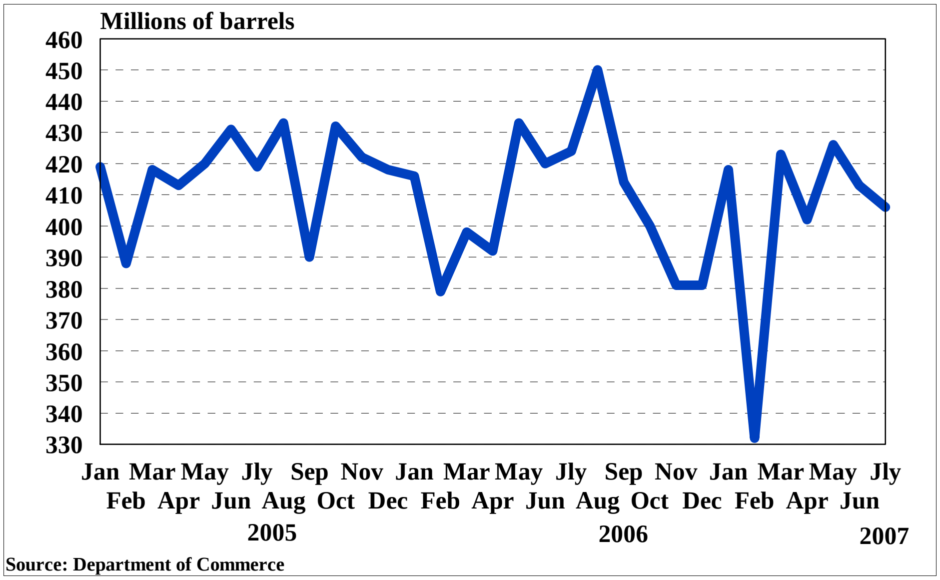
	January through July					
	2006		2007			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Percent change 2006 to 2007	Value (thousands of dollars)	Percent change 2006 to 2007
Total energy-related Petroleum Products	2,897,870	$172,059,603	2,820,456	-1.7%	$168,321,480	-2.2%
Crude oil	2,180,062	$126,087,731	2,153,787	-1.2%	$123,117,121	-2.4%

	January through December					
	2006		2007			
	(Actual values)		(Estimated values)			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Percent change 2006 to 2007	Value (thousands of dollars)	Percent change 2006 to 2007
Total energy-related Petroleum Products	4,880,734	$290,923,833	4,800,042	-1.7%	$284,603,296	-2.2%
Crude oil	3,734,229	$216,627,331	3,689,223	-1.2%	$211,523,620	-2.4%

Source: Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services,* September 11, 2007. Table 17.
Note: Estimates for January through December of 2007 were developed by CRS from data through the first seven months of 2007 and data through 2006 published by the Census Bureau using a straight line extrapolation.

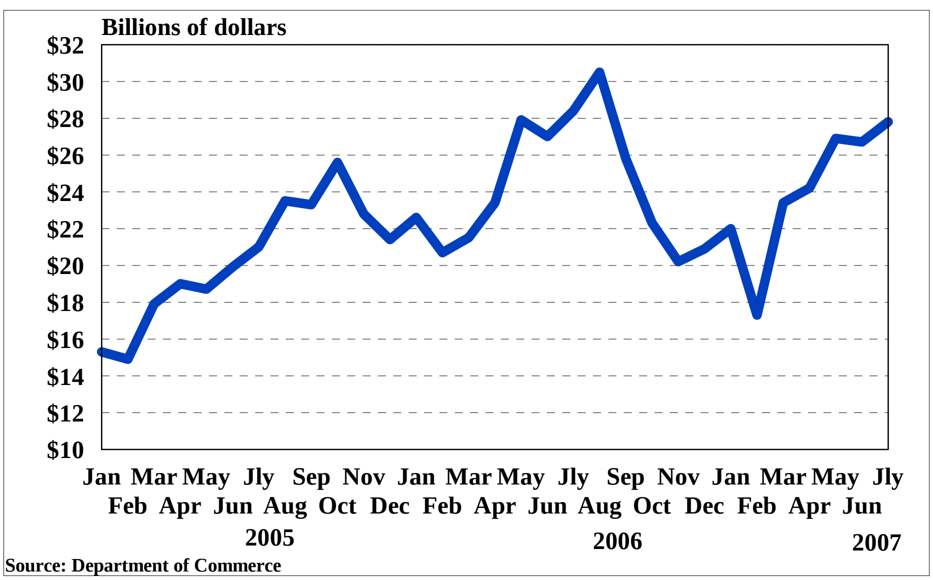
In value terms, energy-related imports rose from about $243 billion in 2005 to $291 billion in 2006, or an increase of 19.6% to account for about 16% of the value of total U.S. merchandise imports. An estimate for 2007, based on data for the first seven months

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



of 2007, indicates a slower start to the seasonal rise in energy prices, compared with the sharp rise experienced in 2005 and 2006. Price data for the April-July period of 2007, however, show a run-up in the price of imported energy in those months and likely will exert upward pressure on forthcoming estimates of the total cost of energy imports for 2007. **As Figure 2** shows, the cost of U.S. imports of energy-related petroleum products has risen from about $15 billion per month in early 2005 to more than $30 billion a month in August 2006, before falling back to $20 billion a month in December 2006 and $28 billion in July 2007. Data for 2006 indicate that a slight decrease in the quantity of imports combined with nearly a 20% increase in the price of imported energy products

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



caused the U.S. trade deficit in energy to rise by about $50 billion to reach nearly $300 billion. After rising steadily since March 2006, the average price of oil retreated in September through November before rising slightly again in December 2006.

At an average price of $57.16 per barrel in the first seven months of 2007, average oil import prices are 1.2% lower than they were in the comparable period in 2006, as indicated in **Table 2**. As a result of the overall rise in the value of energy-related imports in 2006, the trade deficit of such imports rose to $270 billion to account for 32% of the total $836 billion U.S. trade deficit, up from one-fifth of the total trade deficit in less than two years. In the January-July 2007 period, the trade deficit in energy-related imports amounted to $157 billion, or 33% of the total U.S. trade deficit of $473 billion.

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

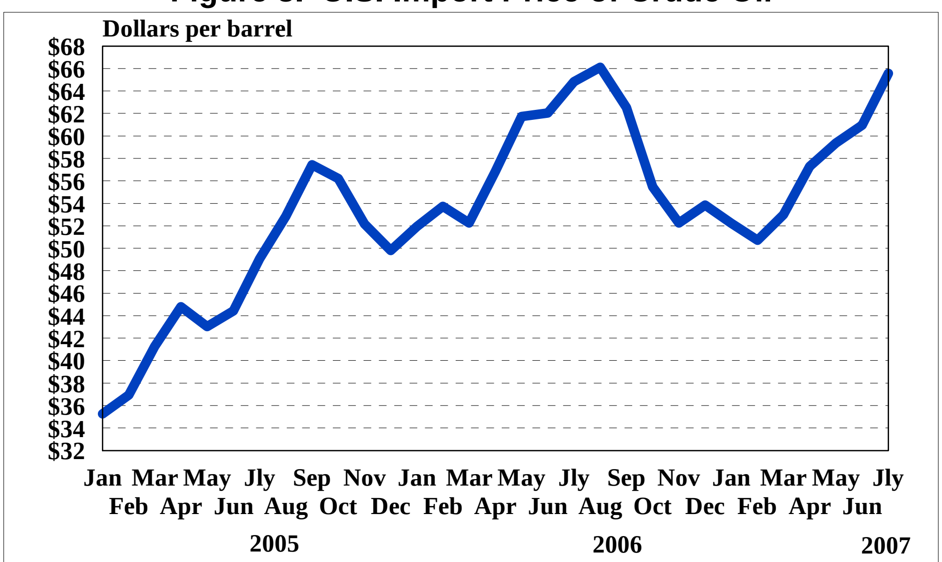
Period	Total energy-related petroleum products [a]		Crude oil			
	Quantity (thousands of barrels)	Value (thousands of dollars)	Quantity (thousands of barrels)	Thousands of barrels per day (average)	Value (thousands of dollars)	Unit price (dollars)
2006						
Jan. - Dec.	4,880,734	290,923,833	3,734,229	10,231	216,627,331	58.01
Jan.-July	2,867,870	172,059,603	2,180,062	10,283	126,087,731	57.84
March	400,108	21,634,571	313,340	10,108	16,393,388	52.32
April	392,263	23,376,784	294,281	9,809	16,669,884	56.65
May	437,665	28,256,655	325,796	10,510	20,212,544	62.04
June	418,856	26,891,284	328,839	10,995	20,488,311	62.12
July	424,756	28,579,912	322,588	10,406	20,944,691	64.93
August	440,997	29,872,301	336,528	10,856	22,255,220	66.13
September	413,902	25,786,512	316,381	10,546	19,740,688	62.40
October	395,656	22,055,963	308,602	9.955	17,119,687	55.47
November	380,813	20,208,933	299,010	9,967	15,615,178	52.22
December	381,597	20,940,521	293,645	9,472	15,808,828	53.84
2007						
Jan.-July	2,820,456	168,321,480	2,153,787	10,159	123,117,121	57.16
January	418,158	22,010,536	320,108	10,326	16,720,818	52.23
February	331,818	17,347,440	252,869	9,031	12,822,771	50.71
March	422,671	23,366,614	324,248	10,460	17,186,586	53.00
April	402,043	24,238,490	304,775	10,159	17,456,146	57.28
May	426,026	26,934,778	320,208	10,329	19,006,138	59.36
June	413,312	26,654,260	321,260	10,709	19,580,491	60.95
July	406,427	27,769,362	310,320	10,010	20,344,172	65.56

Source: Census Bureau, Department of Commerce. Report FT900, *U.S. International Transactions in Goods and Services.* September 11, 2007. Table 17.
Note: Energy-related petroleum products is a term used by the Census Bureau and includes crude oil, petroleum preparations, and liquefied propane and butane gas.

Recent data indicate that the drop in imported energy prices to about $54 per barrel toward the end of 2006 from the high of an average of $66 per barrel reached in August 2006 helped reduce the overall cost of energy imports so that the trade deficit in 2006 rose by about $50 billion, an amount equivalent to an increase of about 7% in the merchandise trade deficit due to higher oil prices. In terms of the U.S. economy, the estimated rise in the trade deficit from the increase in oil prices in 2005 is equivalent to about one-half of a percentage point of U.S. nominal GDP. In a letter to Congress' Joint Economic Committee, Federal Reserve Board Chairman Alan Greenspan estimated that higher energy prices since the end of 2003 have lowered U.S. GDP by three-fourths of a percentage point in 2005 after having reduced growth by about one-half a point in 2004.[2]

Crude oil comprises the largest share of energy-related petroleum products imports. According to Census Bureau data[3] as shown in **Table 2**, imports of crude oil fell from an average of 10.28 million barrels of crude oil imports per day in 2005 to an average of 10.25 million barrels per day in 2006, or a decrease of less than one percent. In December 2006, such imports averaged 9.5 million barrels per day, or a decrease of 6.6% from the volume of such imports recorded in December 2005. Overall, data for oil imports based on January through July data indicate that oil volumes decreased by 1.2% in 2007 from the comparable period in 2006. From 2005 to 2006, the average price of crude oil increased from $46.81 per barrel to $58.00 per barrel for an increase of 24%, as shown in **Figure 3**. As a result, the value of U.S. energy-related imports rose from about $18 billion a month in March 2005 to about $30 billion a month in September 2006, before falling to $21 billion a month in December 2006, the lowest monthly total recorded since July 2005.

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



Source: Department of Commerce

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[2] Aversa, Jeannine, "Oil Prices Said to Slow U.S. Economy a Bit." *The Washington Post*, July 18, 2005.

[3] Report FT900, *U.S. International Trade in Goods and Services,* September 11, 2007. Table 17.

Data for 2007 indicate that a milder-than-normal winter reduced crude oil imports through July 2007 and average oil import prices, which had dropped nearly 4% from the average prices recorded in January 2007, started rising after March. The declines in prices and volumes of oil imports experienced in January and February, began to turn around in the April to July period, although both import volumes and import prices continue to lag behind those recorded for the comparable period in 2006. Preliminary data for August and September 2007 presage higher energy-related imports costs in those months and possibly for much of the rest of 2007. On September 12, 2007, for instance, crude oil traded for a record high of nearly $80 per barrel in world markets.[4]

Issues for Congress

The rise in prices of energy imports experienced since early 2004 is expected to have a relatively minor impact on the rate of economic growth in 2006, but could pose a number of policy issues for Congress. The impact of the rise in energy import prices may well lessen somewhat as energy prices stabilize of fall slightly for the rest of 2006. It is likely, however, that energy prices will rise as rapidly again in 2007, especially in the late spring-early summer period of 2007. An important factor is 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 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. Also, 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.

For Congress, the increase in the nation's merchandise trade deficit could add to existing pressures 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. The increased outflow of dollars may well add to public and Congressional concerns about foreign acquisitions of U.S. firms and to concerns about the growing share of outstanding U.S. Treasury securities that are owned by foreigners. While the rise in energy prices can be expected to lead eventually to improvements in energy efficiency and to alternative sources of energy, there may well be increased pressure applied to Congress to assist in this process.

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[4] Bajaj Vikas, Euro Hits New High; Oil Nears $80 a Barrel, *the New York Times*, September 13, 2007. p. C1.