CRS Report for Congress

Received through the CRS Web

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

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Summary

Petroleum prices have risen sharply since early 2004. At the same time, however, the average amount of imports of energy-related petroleum products has risen slightly. The combination of sharply rising prices and a slightly elevated level of demand for imports of energy-related petroleum products translates into an escalating cost for those imports. This rising cost could add an estimated \$60 to \$90 billion to the Nation's trade deficit in 2005, depending on how sustainable are the recent price increases. 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.

According to data published by the Census Bureau of the Department of Commerce, the prices of petroleum products over the past year have risen considerably faster than the change in demand for those products. As a result, it is estimated that the price increases of imported energy-related petroleum products will worsen the U.S. trade deficit in 2005. Energy-related petroleum products is a term used by the Census Bureau and 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 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 2004 and for the first five months of 2005. Based on the data for the January through May 2005 period, estimates are provided for the values for the full year 2005.

¹ Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services*, July 13, 2005. Table 17.

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

| | January through May | | | | | | |
|------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|--|
| | 2 | 2004 | 2005 | | | | |
| | Quantity (thousands of barrels) | Value (thousands of dollars) | Quantity (thousands of barrels) | Percent change 2004 to 2005 | Value (thousands of dollars) | Percent change 2004 to 2005 | |
| Total energy- related Petroleum | | | | | | | |
| Products | 1,997,334 | \$63,273,974 | 2,055,032 | 2.8 | \$85,679,698 | 26.2 | |
| Crude oil | 1,557,878 | \$47,581,357 | 1,578,152 | 1.3 | \$63,533,376 | 25.1 | |

| | January through December | | | | | | |
|--|---|--|--|--------------------------------------|---|--------------------------------------|--|
| | 2004 | | 2005 | | | | |
| | Quantity (thousands of barrels) (actual) | Value (thousands of dollars) (actual) | Quantity (thousands of barrels) (estimated) | Percent change 2004 to 2005 | Value (thousands of dollars) (estimated) | Percent change 2004 to 2005 | |
| Total energy- related Petroleum Products | 4,917,591 | \$174,499,173 | 5,015,943 | 2.0 | \$236,000,000 | 26.1 | |
| Crude oil | 3,820,979 | \$131,742,664 | 3,897,399 | 2.0 | \$178,000,000 | 26.0 | |

Source: Census Bureau, Department of Commerce. Report FT900, *U.S. International Trade in Goods and Services*, July 13, 2005.

Note: Estimates for January through December of 2005 were developed by CRS from data through the first five months of 2005 published by the Census Bureau using a straight line extrapolation.

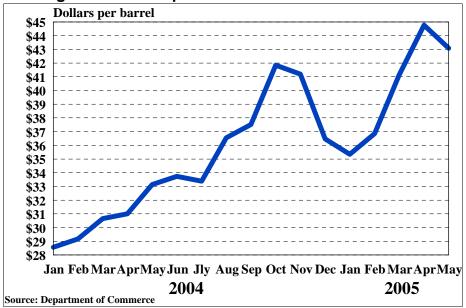
The data indicate that the United States imported 4.9 billion barrels of total energy-related petroleum products in 2004, valued at \$174 billion. In the January through May 2004 period, imports increased from a total of 1.997 billion barrels in 2004 to 2.055 billion barrels in 2005, for an increase in the volume of total energy-related petroleum products imports of nearly 3%. As **Figure 1** shows, imports of energy-related petroleum products can vary sharply on a monthly basis, but averaged about 410 million barrels a month over the January 2004 to May 2005 period.

In value terms, energy-related imports in the January-May period rose from over \$63 billion in 2004 to \$86 billion in 2005, or an increase of 26%. **As Figure 2** shows, the cost of U.S. imports of energy-related petroleum products has risen from about \$11.5 billion per month in early 2004 to nearly \$19 billion a month by May 2005. Based on the data for the January-May 2005 period, imports of total energy-related petroleum products for the full year 2005 are projected to rise to 5.0 billion barrels from 4.9 billion barrels in 2004 and to rise in value to an estimated \$236 billion from the \$178 billion spent in 2004 on such imports, or an increase in the U.S. trade deficit by an estimated \$60 billion due in large part to the increase in oil prices. This estimate of the value of energy-related petroleum products imports is based on an increase in demand at the current rate and on prices at the May 2005 level. This estimate could be low as a result of the rise in oil prices that has occurred since the May data. For instance, by July 2005, such prices had

climbed to \$60 per barrel. If the price of \$60 per barrel were maintained for the remaining seven months of 2005 from June to December, the estimated cost for imports of energy-related petroleum products could rise to as much as \$270 billion, or an increase in the trade deficit by about \$90 billion.

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





Due to the variability in oil prices and the limited amount of data that are available for 2005, it is not possible to provide a precise estimate of the annual merchandise trade deficit for 2005 that will arise as a result of the increase in oil prices so far. It seems

reasonable to assume, however, that an increase in the trade deficit in the \$60 to \$90 billion range would be equivalent to an increase of 9% to 13% in the merchandise trade deficit as a result of higher oil prices. In terms of the U.S. economy, the estimated rise in the trade deficit from the increase in oil prices is 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

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

| | Total energy-related petroleum products ^a | | Crude oil | | | | | | |
|-----------|--|------------------------------------|---------------------------------------|--|------------------------------------|----------------------|--|--|--|
| Period | 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) | | | |
| 2004 | | | | | | | | | |
| Jan Dec. | 4,917,591 | \$174,499,173 | 3,820,979 | 10,440 | \$131,742,664 | \$34.48 | | | |
| Jan Apr. | 1,598,472 | 49,458,720 | 1,240,024 | 10,248 | 37,046,585 | 29.88 | | | |
| January | 395,226 | 11,654,763 | 309,876 | 9,996 | 8,852,497 | 28.57 | | | |
| February | 380,038 | 11,481,124 | 288,494 | 9,948 | 8,414,097 | 29.17 | | | |
| March | 429,420 | 13,662,246 | 329,991 | 10,645 | 10,118,324 | 30.66 | | | |
| April | 393,788 | 12,660,588 | 311,663 | 10,389 | 9,661,668 | 31.00 | | | |
| May | 398,862 | 13,815,254 | 317,854 | 10,253 | 10,534,772 | 33.14 | | | |
| June | 432,235 | 15,124,648 | 344,729 | 11,491 | 11,631,044 | 33.74 | | | |
| July | 414,258 | 14,411,409 | 324,108 | 10,455 | 10,817,829 | 33.38 | | | |
| August | 437,516 | 16,400,730 | 333,756 | 10,766 | 12,196,274 | 36.54 | | | |
| September | 377,861 | 14,557,549 | 297,013 | 9,900 | 11,142,685 | 37.52 | | | |
| October | 408,187 | 17,557,812 | 313,249 | 10,105 | 13,107,077 | 41.84 | | | |
| November | 439,794 | 17,892,337 | 329,660 | 10,989 | 13,577,287 | 41.19 | | | |
| December | 410,406 | 15,280,713 | 320,586 | 10,341 | 11,689,111 | 36.46 | | | |
| 2005 | | | | | | | | | |
| Jan Apr. | 1,636,724 | 67,070,864 | 1,259,522 | 10,496 | 49,807,284 | 39.54 | | | |
| January | 416,368 | 15,226,958 | 322,803 | 10,413 | 11,410,258 | 35.35 | | | |
| February | 389,832 | 14,947,342 | 296,929 | 10,605 | 10,942,242 | 36.85 | | | |
| March | 420,260 | 17,955,052 | 325,979 | 10,515 | 13,410,140 | 41.14 | | | |
| April | 410,265 | 18,941,511 | 313,811 | 10,460 | 14,044,645 | 44.76 | | | |
| May | 418,308 | 18,608,834 | 318,630 | 10,278 | 13,726,092 | 43.08 | | | |

Source: Census Bureau, Department of Commerce. Report FT900, *U.S. International Transactions in Goods and Services.* July 13, 2005. 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.

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

Crude oil comprises the largest share of energy-related petroleum products imports. According to Census Bureau data³ as shown in **Table 2**, imports of crude oil rose from an average of 10.2 million barrels of crude oil imports per day in the January-April 2004 period to an average of 10.5 million barrels per day in the January-April 2005 period, or an increase of about 3 %. At the same time, the average price of crude oil increased from \$29.88 per barrel to \$39.54 per barrel for an increase of 24%. As a result, the value of U.S. energy-related imports rose from about \$15 billion a month in early 2005 to about \$20 billion a month by mid 2005, as shown in **Figure 3**. The data also indicate, however, that the average prices for crude oil can vary considerably from month to month, depending on a range of factors.

| Sillions of dollars | Sillions of dollars | Sillions | Sillions

Figure 3. Value of U.S. Imports of Energy-Related Petroleum Products

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 through the remainder of the year, but could pose a number of policy issues for Congress. The impact of the rise in energy import prices so far could become more pronounced if such prices continue to rise at the rapid rate experienced in the late spring-early summer period of 2005. Most immediately, the higher prices of 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. The full impact of such price increases on the trade deficit will be more fully understood once it is known how high and how rapidly they have climbed through the remainder of the year.

³ Report FT900, U.S. International Trade in Goods and Services, July 13, 2005. Table 17.

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.