



Focus on Prices and Spending

Producer Prices Index: Second Quarter 2011

U.S. Bureau of Labor Statistics August 2011 Volume 2, Number 6



Current Price Topics

The Impact of Fuel Surcharges on the PPI

Recent news reports indicate that rising fuel costs affect all segments of the United States economy.¹ Industry experts agree, noting that consumers are affected by higher transportation costs passed on by shippers to their customers.² Although many consumers experience high gasoline prices at the pump, few realize the degree to which high fuel costs also influence prices paid for other goods and services; fuel surcharges drive up shipping costs and often are passed on to buyers in the form of higher prices.³

For transportation service providers, shipping prices are typically set using a combination of a *base rate* along with surcharges or discounts. Base rates can vary by mode of transportation, but generally they are a contractual amount to move freight from origin to destination on the basis of mileage and volume. In addition to fuel surcharges, other common surcharges pass on the cost for deadheading (making a return trip without passengers or freight), insurance, and security.

Of the various surcharges, fuel surcharges are often the costliest. The method for calculating fuel surcharges varies depending on market

practices, both within industries and across industries. One method passes the increase in fuel prices directly to the buyer, as a percentage increase over the base rate. In another method, the number of miles involved in the total freight shipment or the passenger trip determines the amount of the fuel surcharge. For the most part, fuel surcharges, and the formulas used to calculate them, are published by transportation carriers and are usually updated monthly with a lag of up to 60 days.

The Producer Price Index (PPI) measures the average change over time in the selling prices received by domestic producers for their output, and fuel surcharges can have a significant impact on the prices received by various transportation companies. This was evident during the turbulent business cycles of 2008 to 2011, including the commodity price surge through mid-2008, the subsequent recession in 2009, and the economic recovery that followed.

Higher crude oil prices through the summer of 2008 drove up prices for refined petroleum products, including diesel fuel, bunker (residual) fuel, and jet fuel. Transportation companies passed the higher costs onto their customers, causing the PPIs for the transportation sector to reach then-historic levels. As various refined petroleum prices decreased through 2009, lower fuel surcharges followed, and the transportation sector PPIs declined

drastically. In 2010, the strengthening global economy led to an increase in refined petroleum prices. Prices for transportation sector services responded similarly, as transportation companies reinstated a number of their fuel surcharges to recover revenue lost to higher fuel costs. Charts 1 through 3 demonstrate these relationships.

Although general trends in price movements within the transportation sector have been similar, subtle differences between fuel types and industry business practices have resulted in differences in the timing and magnitude of the price transmissions of fuel surcharges. Chart 1 shows that price transmissions of fuel surcharges have affected prices for truck transportation more quickly than for rail transpor-

tation. In general, the lags in price transmissions for truck transportation are shorter than for rail transportation because of differences in negotiated contract specifications. Chart 2 shows the divergence in price movement between bunker fuel prices and the PPI for the water transportation sector in mid-2010. This is because water transportation companies raised their base rates while leaving fuel surcharges relatively unchanged, anticipating increased demand as the economy recovered. The PPI for the air transportation sector differs somewhat from the other transportation sectors in that it generally measures price changes for both the business and the consumer markets, whereas the PPI for other transportation sectors typically track business-to-business transactions. The divergence in price

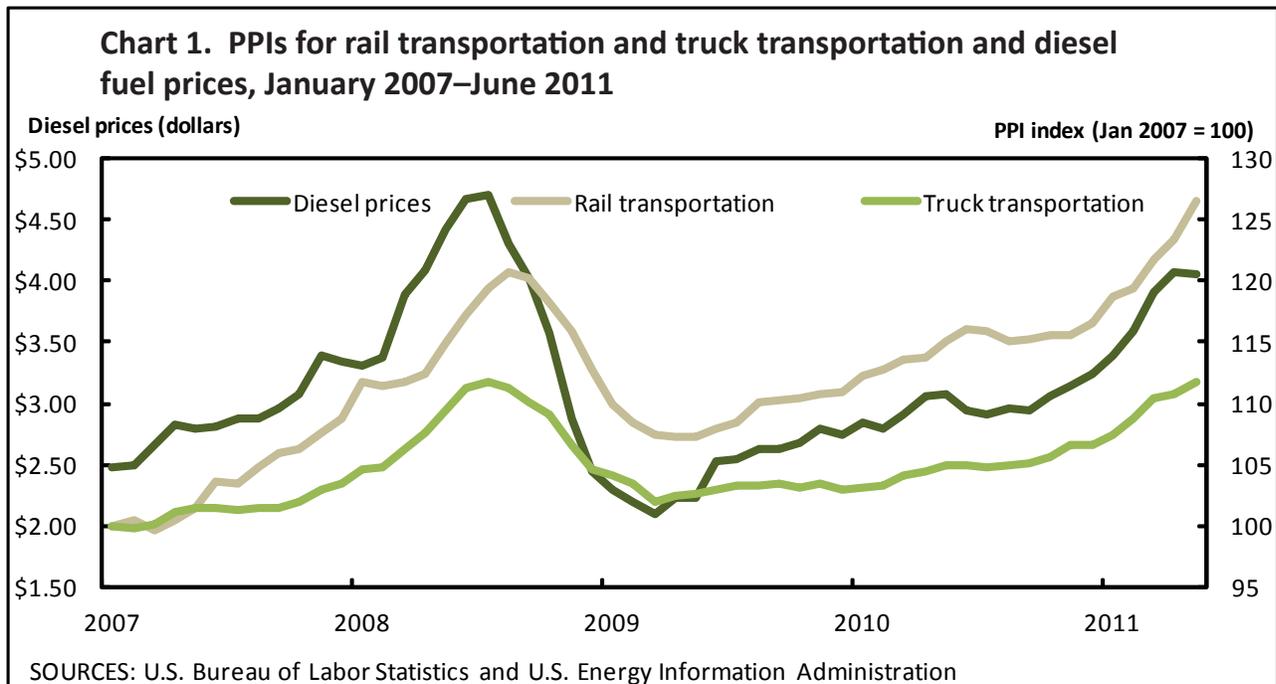
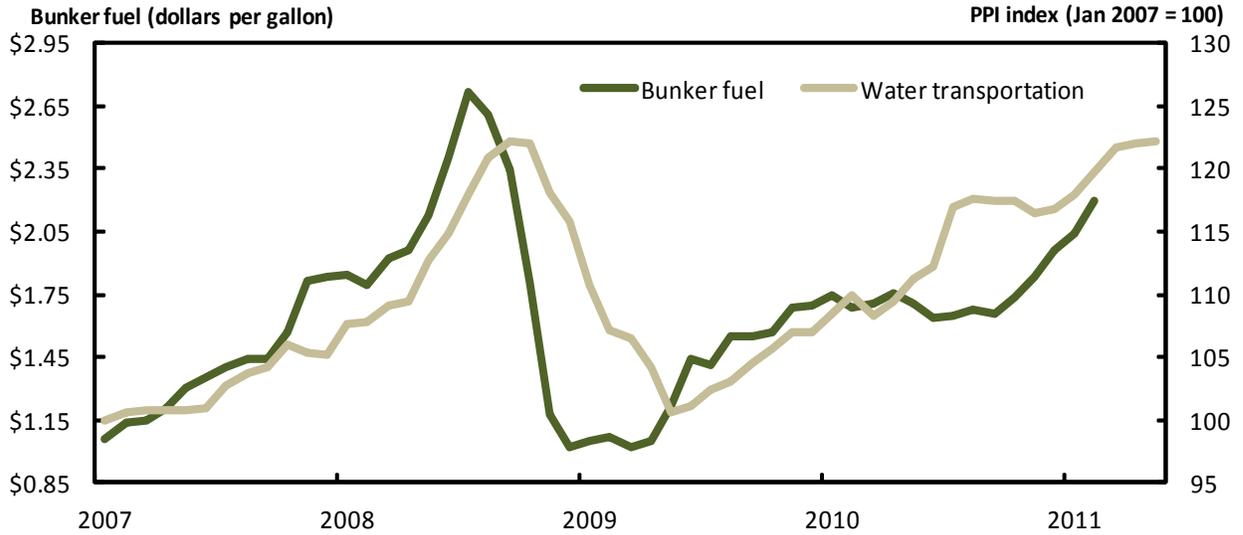
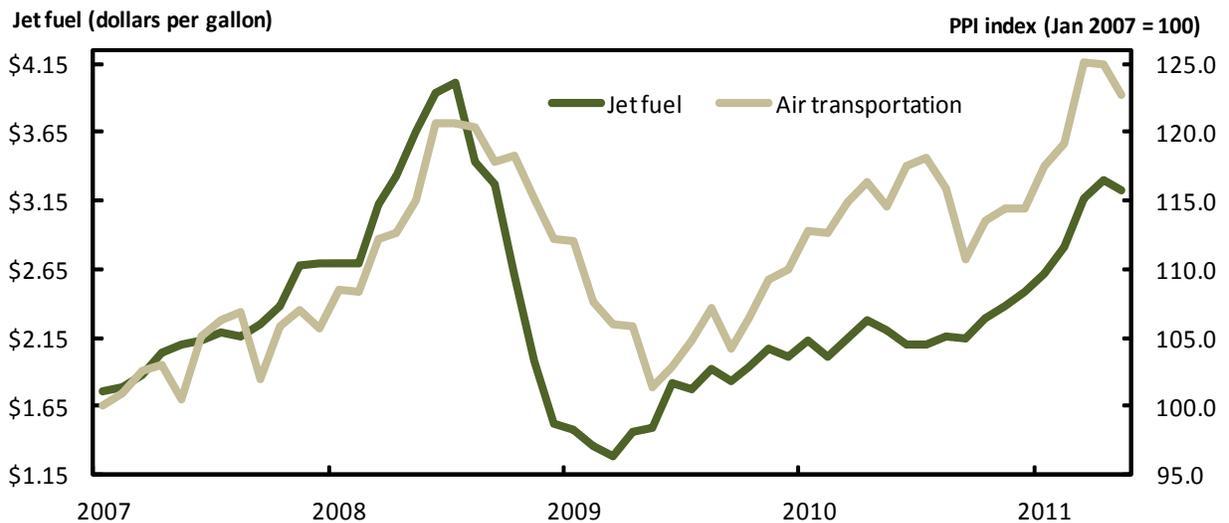


Chart 2. PPI for water transportation and bunker fuel prices, January 2007–June 2011



SOURCES: U.S. Bureau of Labor Statistics and U.S. Energy Information Administration

Chart 3. PPI for air transportation and jet fuel prices, January 2007–June 2011



SOURCES: U.S. Bureau of Labor Statistics and U.S. Energy Information Association

trends for jet fuel and air transportation, seen in chart 3 beginning in late 2009, were caused by a decrease in available capacity, as many airlines decreased the number of flights they offered during the recession. During the subsequent recovery, capacity generally was not reinstated, causing air transportation prices to increase at a much faster rate than prices for jet fuel.

Although there are subtle differences in each of the transportation sector PPIs, an examination of the price movements of each industry's indexes shows that changes in fuel prices are a major driver of index movement for the transportation sector PPIs. As fuel prices change, the effect is felt throughout the economy as people and goods make it to their final destination.




Current Price Trends Producer Inflation Slows in the Second Quarter of 2011

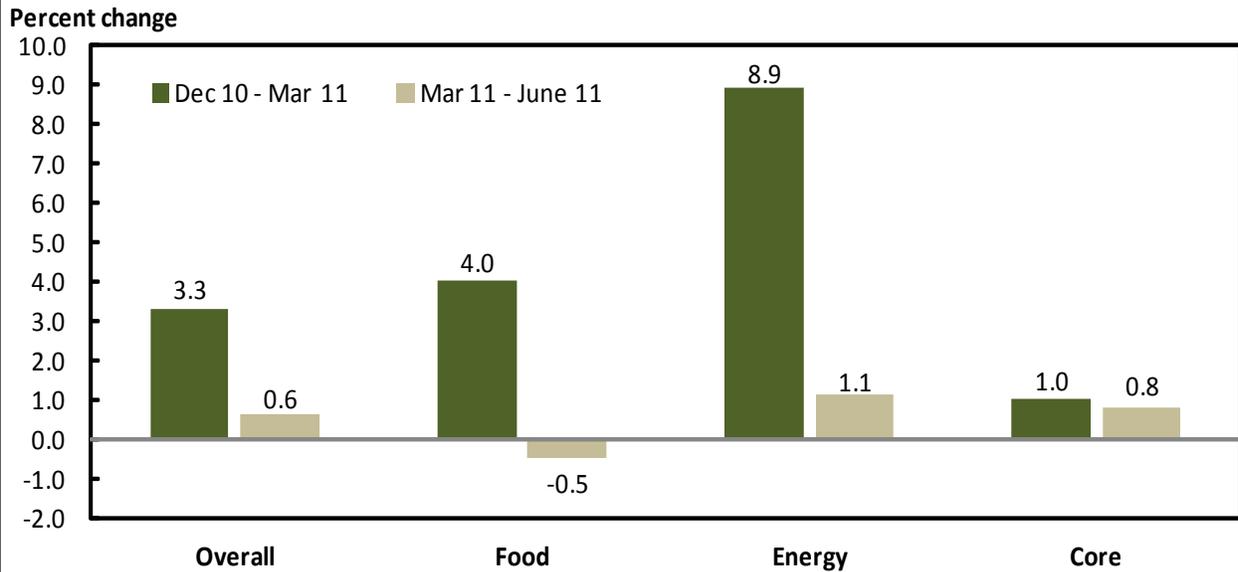
In a broad-based shift, producer inflation measured by the PPI slowed in the second quarter after surging in the first quarter of 2011.⁴ For the finished goods stage of processing, prices advanced 0.6 percent in the second quarter, following a 3.3-percent rise in the preceding 3-month period. The major contributors to this slower rate of increase were the indexes for finished energy goods, which moved up 1.1 percent following an 8.9-percent jump in the first quarter, and finished consumer

foods, which edged down 0.5 percent for the 3 months ended in June, after advancing 4.0 percent in the prior quarter. Prices for finished goods other than food and energy rose at a slightly slower rate in the second quarter of 2011 than they did in the first quarter. (See chart 4.) At the earlier stages of processing, prices received by manufacturers of intermediate goods moved up at a slower rate for the 3 months ended in June, as compared with the preceding 3-month period. The intermediate goods indexes for energy goods, foods and feeds, and core goods all climbed less than they had in the first quarter.⁵ (See chart 5.) The crude goods index fell in the second quarter, after increasing for the 3 months ended in March, as prices for crude energy materials turned down, and the indexes for crude foodstuffs and feedstuffs and for crude core goods advanced at slower rates in the second quarter. (See chart 6.)

Economic background

In the energy goods sector, prices for crude petroleum surged in the final quarter of 2010. In the first quarter of 2011, the rate of increase slowed; by the end of the second quarter, the crude petroleum index was declining. Similarly, price advances for refined petroleum products tapered off in the second quarter of 2011 after accelerating in late 2010 and early 2011. During the period of acceleration, expectations for both economic strengthening and rising crude oil prices led investors to take a *long position* in the futures market for

Chart 4. Three-month percent change in PPI for overall, food, energy, and core finished goods, seasonally adjusted

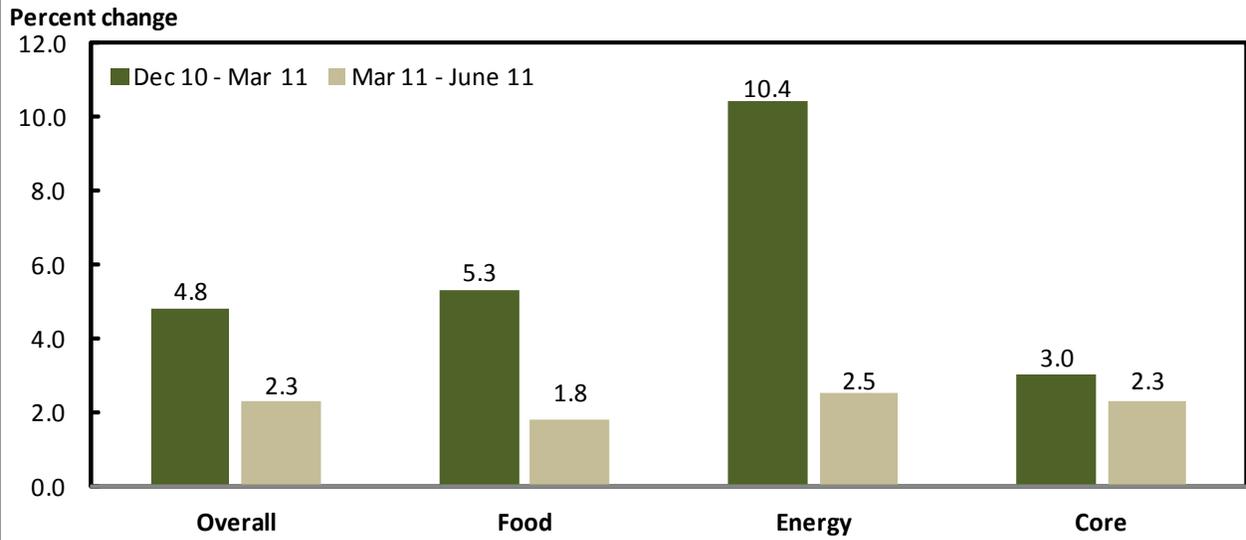


SOURCE: U.S. Bureau of Labor Statistics

crude oil (that is, the number of futures buy contracts outweighed the number of futures sell contracts), helping push prices higher.⁶ Over the last 3 calendar quarters, however, actual crude petroleum production and supply have remained above their 5-year historical averages.⁷ Refined petroleum product inventories provided more of a mixed picture, as gasoline and jet fuel stocks fell precipitously, then rebounded quickly, while distillate fuel stocks remained plentiful throughout the period.⁸ By June 2011, it was evident that both crude and refined petroleum product supplies were sufficient, and that although economic growth was strong in Asia, weakness in parts of Europe and in the United States continued to cause uncertainty.⁹

In the foods sector, drought conditions in cattle farming areas and higher prices for grains pushed the livestock slaughter rate higher. In addition, a positive outlook regarding this year's hog production also contributed to a second quarter downturn in prices for both slaughter livestock and meats.¹⁰ As of May 2011, beef production was 2 percent higher than a year earlier, while the slaughter rate was 1 percent above its May 2010 level. For pork, production and slaughter figures were higher by 9 percent and 7 percent, respectively.¹¹ In addition, second quarter prices for fresh and dry vegetables reversed course from a first quarter spike, attributable to unseasonably cold winter weather in the southeastern United States.¹²

Chart 5. Three-month percent change in PPI for overall, food, energy, and core intermediate goods, seasonally adjusted



SOURCE: U.S. Bureau of Labor Statistics

Most of the volatility in the core PPIs was for metals and metal products at the crude and intermediate stages of processing. A combination of slowing inflation and outright downturns in prices for iron and steel scrap, copper ores, and copper-base scrap contributed to similar price movements for steel mill products and various nonferrous metal products, such as primary nonferrous metals, secondary nonferrous metals, and copper and brass mill shapes.

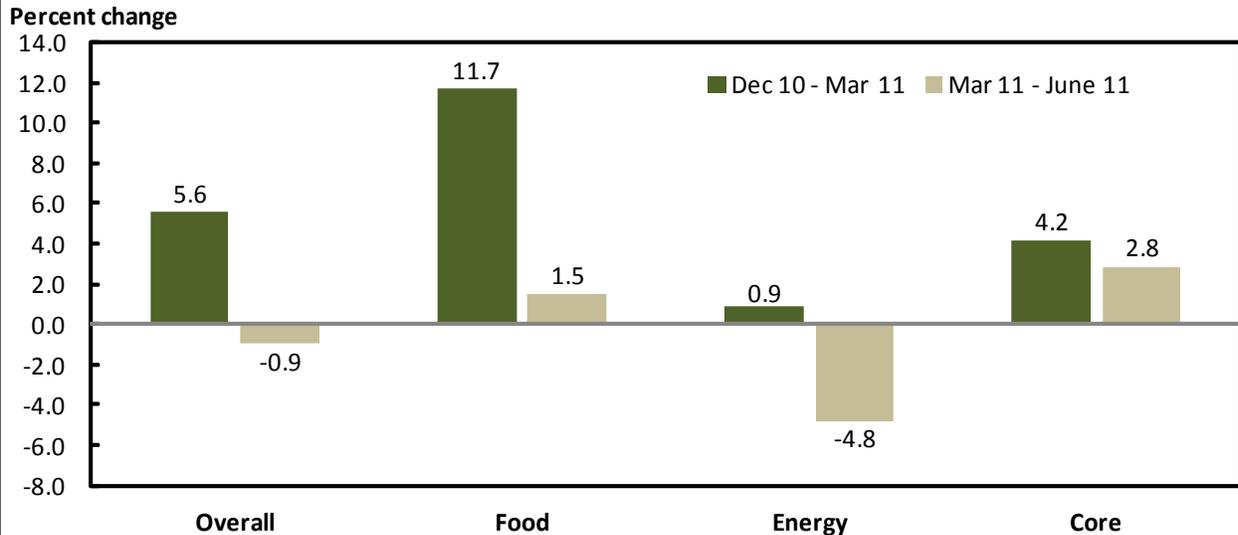
Finished goods

The PPI for finished goods increased 0.6 percent from March to June, compared with a 3.3-percent rise in the first quarter of 2011. Leading this deceleration, the advance in the indexes for finished energy goods and for finished goods less foods and energy slowed from the previous 3-month period. Prices for

finished consumer foods turned down in the 3 months ended in June, after rising from December to March.

Finished energy goods prices moved up 1.1 percent for the 3 months ended in June, following an 8.9-percent increase from December to March. The main factor in this deceleration was the gasoline index, which advanced 1.3 percent after a 17.0-percent rise in the preceding 3-month period. Prices for liquefied petroleum gas and diesel fuel also advanced less than they did in the previous quarter. The indexes for home heating oil and residential electric power turned down after increasing for the 3 months ended in March. Conversely, residential natural gas prices turned up in the second quarter, advancing 5.1 percent after inching down 0.1 percent in the prior 3-month period.

Chart 6. Three-month percent change in PPI for overall, food, energy, and core crude goods, seasonally adjusted



SOURCE: U.S. Bureau of Labor Statistics

The Producer Price Index for finished consumer foods declined 0.5 percent from March to June, compared with a 4.0-percent increase in the 3 months ending in March. Prices for fresh and dry vegetables turned down 20.9 percent, following a 32.9-percent surge in the first quarter. Similarly, the indexes for meats and soft drinks decreased in the second quarter after moving up in the prior 3-month period. Prices for natural cheese (except cottage cheese) increased less in the second quarter of 2011 than they had from December to March. By contrast, the index for eggs for fresh use jumped 38.2 percent after falling 23.4 percent in the first quarter. Prices for fresh fruits and melons also turned up for the 3 months ended in June, following declines in the previous quarter.

From March to June 2011, prices for finished goods less foods and energy advanced 0.8 percent, following a 1.0-percent increase in the preceding 3-month period. In the second quarter, higher prices for light motor trucks, consumer plastic products, civilian aircraft, passenger cars, and tires outweighed lower prices for pharmaceutical preparations, signs and advertising displays, and for medical and surgical appliances and supplies.

Intermediate goods

The PPI for intermediate materials, supplies, and components increased 2.3 percent in the 3-month period ending in June, subsequent to a 4.8-percent advance in the 3-month period ended in March. This slower rate of

advance was broad-based, with prices for intermediate energy goods, intermediate goods less foods and energy, and intermediate foods and feeds rising less than they had in the first quarter.

Prices for intermediate energy goods advanced 2.5 percent in the 3 months ended in June, following a 10.4-percent gain in the previous 3-month period. Prices for diesel fuel increased 1.4 percent from March to June following a 22.6-percent jump during the previous quarter. The indexes for gasoline, jet fuel, lubricating oil base stocks, and liquefied petroleum gas also increased less in the second quarter. In contrast, prices for asphalt climbed 25.6 percent for the 3 months ended in June, compared with an 8.9-percent increase in the preceding quarter.

The index for intermediate goods less foods and energy moved up 2.3 percent from March to June, after climbing 3.0 percent in the previous quarter. A majority of this deceleration can be attributed to prices for steel mill products, which moved up 1.5 percent after rising 12.4 percent in the first quarter. The indexes for yarns and for agricultural chemicals and chemical products also advanced less in the second quarter than in the previous quarter. Prices for both primary nonferrous metals and lumber declined after rising during the 3 months ended in March. In contrast, the index for biological products (including diagnostics) climbed 3.9 percent in the second quarter, after a 0.4-percent gain from December to March.

The index for intermediate foods and feeds increased 1.8 percent for the 3 months ended in June, after rising 5.3 percent for the 3 months ended in March. Price increases for fats and oils slowed to 3.0 percent in the second quarter, after increasing 14.3 percent in the previous 3 months. The indexes for natural cheese (except cottage cheese), refined sugar and byproducts, and confectionery materials also moved up less than in the first quarter. Prices for meats turned down after rising from December to March. By contrast, the rise in the index for formula feeds accelerated to 4.8 percent from March to June, after climbing 4.0 percent in the previous quarter.

Crude goods

The PPI for crude materials for further processing fell 0.9 percent for the 3 months ended in June, after rising 5.6 percent during the preceding quarter. The reversal in crude goods prices was broad-based: the index for crude energy materials turned down in the second quarter, and prices for both crude foodstuffs and feedstuffs and crude nonfood materials less energy advanced less than they had from December to March.

Prices for crude energy materials decreased 4.8 percent in the second quarter, following a 0.9-percent increase in the prior quarter. This downturn can be attributed to the crude petroleum index, which dropped 15.1 percent from March to June, after rising 5.3 percent during the previous quarter. Conversely,

natural gas prices jumped 12.2 percent for the 3 months ended in June, following a 7.6-percent decline in the first quarter. The coal index moved up at a slightly faster rate than it had in the preceding quarter.

The index for crude foodstuffs and feedstuffs moved up 1.5 percent from March to June, after climbing 11.7 percent in the previous quarter. A majority of this slower rate of advance can be traced to prices for slaughter livestock, which declined 1.5 percent after rising 17.8 percent in the first quarter. The indexes for fluid milk and fresh vegetables (excluding potatoes) also fell in the second quarter, following increases in the prior quarter. In contrast, the index for Irish potatoes for processing surged 105.3 percent from March to June, compared with a 19.9-percent drop in the preceding quarter. Prices for fresh fruits and melons also turned up in the second quarter, while the index for corn advanced at a faster rate than it had in the previous quarter.

Prices for crude nonfood materials less energy increased 2.8 percent for the 3 months ended in June, after rising 4.2 percent in the prior quarter. Leading this slower rate of advance, the index for iron and steel scrap inched down 0.2 percent in the second quarter, following a 12.7-percent jump for the 3 months ended in March. Prices for copper ores also turned down after rising in the first quarter, while the index for copper base scrap moved up less than it had in the preceding quarter. By

contrast, prices for grains surged 17.8 percent in the second quarter, following a 3.2-percent gain for the 3 months ended in March. The gold ores index also increased at a faster rate in the second quarter, while prices for corrugated wastepaper rose after falling in the first quarter.

Trade industries

The PPI for the net output of total trade industries moved up 1.7 percent in the second quarter of 2011, after rising at the same rate in the previous 3-month period. (Trade industry PPIs measure changes in margins received by wholesalers and retailers.) From March to June, higher margins received by merchant wholesalers of both durable and nondurable goods, gasoline stations, and women's clothing stores outweighed lower margins received by family clothing stores, fuel dealers, and home centers.

Transportation and warehousing industries

The PPI for the net output of transportation and warehousing industries increased 1.2 percent in the second quarter of 2011, compared with a 4.5-percent gain for the 3 months ended in March. From March to June, prices received by couriers moved up 3.6 percent, following a 7.5-percent climb from December to March. Similarly, the index for the long-distance general freight trucking industry also rose less than in the first quarter. Prices received by the industries for scheduled

air transportation and local specialized freight trucking of new goods turned down after rising from December to March. The index for long-distance specialized freight trucking of new goods was unchanged from March to June, subsequent to an increase in the first quarter. By contrast, prices received by the U.S. Postal Service rose 1.6 percent in the second quarter, following a 0.4-percent gain in the previous quarter.

Traditional service industries

The PPI for the net output of total traditional service industries advanced 0.9 percent from

March to June, after rising 0.7 percent from the preceding quarter. In the second quarter, higher prices received by the industries for commercial banking, insurance carriers, general medical and surgical hospitals, portfolio managers, and engineering services outweighed lower prices received by the industries for passenger car rental, real estate agents and managers, and heavy machinery rental and leasing.

Additional information is available from the **PPI Section for Index Analysis and Public Information**, at ppi-info@bls.gov or at (202) 691-7705.



Notes

¹ Martin Crutsinger, Associated Press, “U.S. economy grew only weakly at start of year as high energy prices caused slowdown in spending,” *Toledo Blade*, May 26, 2011, <http://www.toledoblade.com/economy/2011/05/26/us-economy-grew-only-weakly-at-start-of-year-as-high-energy-prices-caused-slowdown-in-spending.html>.

² Christine Hauser, “Shippers May Raise Fuel Fees,” *New York Times*, April 26, 2011, http://www.nytimes.com/2011/04/27/business/27surcharge.html?_r=1&scp=1&sq=shippers%20may%20raise%20fuel%20fees&st=cse.

³ Kembala Evans, “The Domino Effect of High Gas Prices,” *gainmoneycontrol.com*, March 8, 2011, <http://gainmoneycontrol.com/the-domino-effect-of-high-gas-prices>.

⁴ Price movements for PPIs described in this article include preliminary data for the months of March 2011 through June 2011. All PPI data are recalculated 4 months after original publication, to reflect late data received from survey respondents. In addition, seasonally adjusted PPIs are recalculated on an annual basis for 5 years, to reflect more recent seasonal patterns.

⁵ Within the PPI stage-of-processing structure, indexes for goods other than foods and energy commonly are referred to as the core indexes.

⁶ “Energy & Financial Markets: What Drives Crude Oil Prices? An analysis of 7 factors that influence oil markets, with chart data updated monthly and quarterly,” (Energy Information Administration, April 2011), http://www.eia.gov/finance/markets/financial_markets.cfm.

⁷ Weekly Petroleum Status Report, DOE/EIA-0208(2011-27), p. 5 (Energy Information Administration, July 8, 2011), http://www.eia.gov/pub/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/historical/2011/2011_07_13/pdf/wpsrall.pdf.

⁸ *Ibid.*, pp. 7, 9, and 10.

⁹ World Economic Outlook Update, June 2011, (International Monetary Fund), June 17, 2011, p. 2, <http://www.imf.org/external/pubs/ft/weo/2011/update/02/pdf/0611.pdf>. “Eurostat, Real GDP growth rate, by country and region, 1997-2012,” (Eurostat), <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020>. Gross Domestic Product: First Quarter 2011 (Third Estimate), BEA 11-32 (Bureau of Economic Analysis, June 24, 2011), http://www.bea.gov/newsreleases/national/gdp/2011/pdf/gdp1q11_3rd.pdf.

¹⁰ Livestock, Dairy, and Poultry Outlook, A Report from the Economic Research Service, LPD-M-205 (U.S. Department of Agriculture, July 18, 2011), <http://www.ers.usda.gov/publications/ldp/2011/07jul/ldpm205.pdf>.

¹¹ Livestock Slaughter, National Agricultural Statistics Service (U.S. Department of Agriculture, June 24, 2011), <http://usda.mannlib.cornell.edu/usda/nass/LiveSlau/2010s/2011/LiveSlau-06-24-2011.pdf>.

¹² Weekly Weather and Crop Bulletin, State Stories, National Agricultural Statistics Service (U.S. Department of Agriculture, Feb. 1, 2011), <http://usda.mannlib.cornell.edu/usda/nass/WWStateStories//2010s/2011/WWStateStories-02-01-2011.pdf>.