



Focus on Prices and Spending



Producer Price Index: First Quarter 2010

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Current Price Trends

Intermediate Materials Continue their Advance

In the first quarter of 2010, the Producer Price Index for intermediate goods rose at a similar rate as in the fourth quarter of 2009. This advance reflected higher costs faced by the manufacturing and construction sectors for both materials and components, as well as increasing prices paid by various types of businesses for supplies such as fuels, lubricants, boxes, containers, plastic products, and drugs and pharmaceuticals. This first edition of the new "Focus" series on the PPI analyzes recent trends in the various Producer Price Indexes with a particularly detailed examination of intermediate goods. First, broad trends in producer prices and the overall economy are identified.

Economic Background

After registering steep declines through mid-2009, 12-month rates of change in Producer Price Indexes (PPIs) across all stages of processing reversed course over the period that has followed. In July 2009, the indexes for

crude, intermediate, and finished goods were falling at 12-month rates of 44.8, 15.2, and 6.9 percent, respectively.¹ By March 2010, these indexes were rising at rates of 33.4, 7.7, and 6.0 percent, respectively. This turnaround in producer prices can be traced, at least in part, to general improvement in the U.S. economy. Data relating to gross domestic product (GDP), exports, and industrial production show that the overall strength of the domestic economy has improved from its weakest point in early-to-mid-2009.

GDP figures from the Bureau of Economic Analysis of the U.S. Department of Commerce confirm that the U.S. economy was in deepest recession during the final quarter of 2008 and the first quarter of 2009, when GDP fell at 5.4 percent and 6.4 percent seasonally adjusted annual rates (SAARs), respectively.² A 2.7-percent drop in third quarter 2008 GDP and a 0.7-percent decrease during the second quarter of 2009 added to the severity of the downturn. By the latter half of 2009, however, the U.S. economy was once again expanding; GDP grew at a 2.2-percent SAAR in the third quarter of 2009 and a 5.6-percent SAAR during the final quarter of 2009.³ This reversal in GDP was due to a large expansion in equipment and software fixed investment, private inventory investment, strong gains in exports of goods, and an upturn in personal consumption expenditures. By contrast, consumption and investment expenditures by government slowed in the latter part of 2009, and private

fixed investment in structures continued to decline.⁴

Data published by the Federal Reserve System relating to industrial production also point to an upturn in economic activity since mid-2009.⁵ Overall industrial production fell 6.7 percent in 2008 and declined at even steeper annual rates during the first two quarters of 2009—19.0 and 10.4 percent. Over the final two quarters of 2009 and the first quarter of 2010, industrial production turned upward, rising at 6.4-, 6.9-, and 7.8-percent SAARs. The improvement from mid-2009 forward was broad based; industrial production of both final products (consumer goods and business equipment) and materials for business advanced following earlier decreases.⁶ In comparison, production of construction supplies—though slightly improved in the third quarter of 2009—showed significant weakness in the final quarter. In the first quarter of 2010, more improvement was evident.⁷

Reflecting this overall improvement in the economy, PPIs across all stages of processing began advancing in mid-2009. Gains in prices for crude goods led the way, posting quarterly increases starting in the second quarter. By the close of the first quarter of 2010, however, the turnaround in prices for crude energy goods and crude foods began to level off, as prices for crude commodities tend to be sensitive to even subtle shifts in the economy, which often result in quick adjustments in prices.

The indexes for intermediate energy goods

and intermediate foods and feeds exhibited price movements similar to those for their crude-good counterparts, but prices received by producers of intermediate goods less foods and energy (also known as intermediate core inflation) continued increasing at accelerating rates through March 2010. The strengthening in intermediate core inflation was widespread. Quarterly percent changes for the indexes for materials for both nondurable manufacturing and durable manufacturing, containers, and supplies to manufacturers all showed mounting advances through the first quarter of 2010.

Intermediate Goods

Returning to the focus on the PPI for Intermediate Materials, Supplies, and Components, prices rose 2.4 percent, seasonally adjusted, for the 3 months ended March 2010, matching their rate of advance during the 3 months ended December 2009. (See chart 1.) The increase in first quarter 2010 can be traced to prices for intermediate goods less foods and energy, which climbed 2.2 percent, and the index for intermediate energy goods, which climbed 4.5 percent. In contrast, prices received by manufacturers of intermediate foods and feeds fell 1.2 percent during the 3 months ended in March.

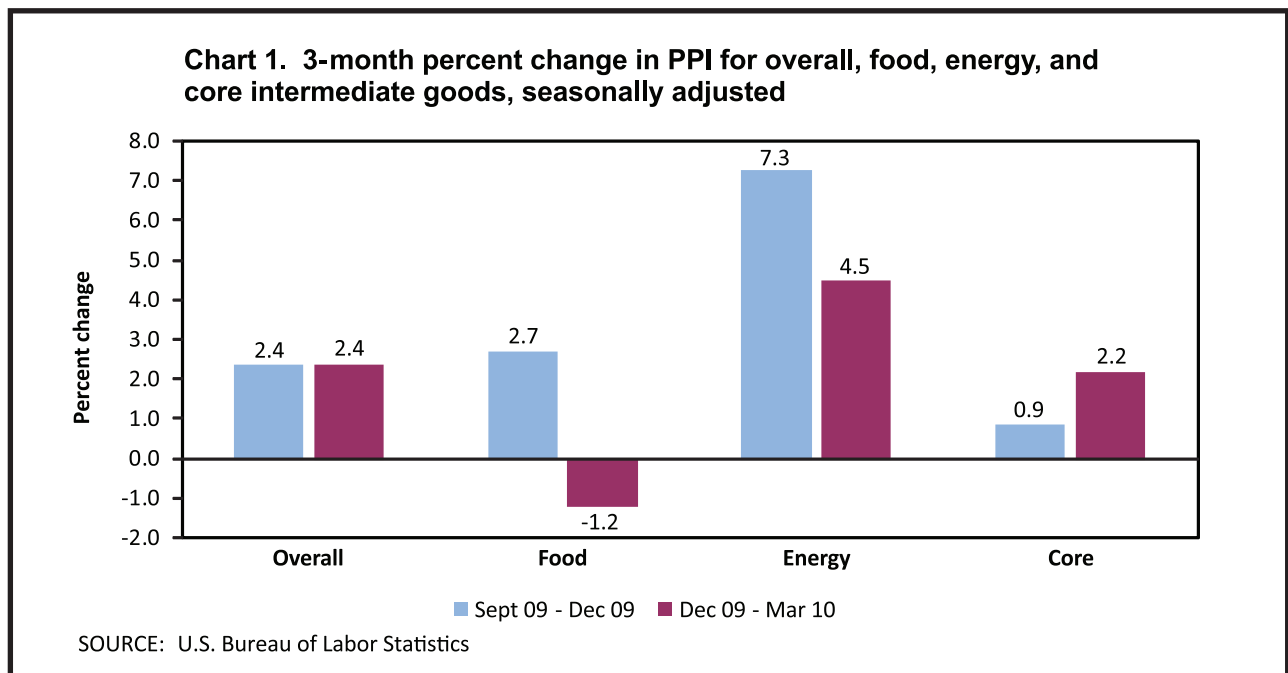
The increase in the index for intermediate goods less foods and energy accelerated to 2.2 percent during the first quarter of 2010 from 0.9 percent in the final quarter of 2009. Within the intermediate goods “core,” prices for iron and steel had the greatest impact, jumping 14.1 percent in the 3 months ended

March 2010 following a 0.1-percent advance in the previous quarter. The indexes for basic organic chemicals, thermoplastic resins and materials, and lumber also rose more than in the final quarter of 2009. The index for paper-board turned up in the first 3 months of 2010 after decreasing in the fourth quarter of 2009. By contrast, from December 2009 to March 2010, the index for primary nonferrous metals declined 4.8 percent after a 6.2-percent rise in fourth quarter of 2009. Prices for copper and brass mill shapes also turned down in the first quarter of 2010, and the index for nonferrous wire and cable rose less than in the final quarter of 2009.

As of March 2010, iron and steel prices were 31.0 percent higher than at their 2009 lows. The automotive and industrial equipment manufacturing industries are two major consumers of steel in the United States. Driving

demand for iron and steel production of motor vehicles turned up in July and advanced through September.⁸ Increased demand for industrial equipment paralleled that of motor vehicles manufacturing, since such equipment is a major input to these industries. The more modest 0.1-percent increase in iron and steel prices in the fourth quarter of 2009 may have been attributable to weather-related halts in construction and the winding up of programs aiding motor vehicle and parts manufacturers. In the first quarter of 2010, prices for iron and steel jumped 14.1 percent due to inventory replenishment as the economy continued to strengthen, annual contract renegotiations with makers of metal-intensive processed goods, and a growing export market due to the weak U.S. dollar.⁹

In the 3-month period ending March 2010, the index for basic organic chemicals advanced



9.6 percent following a 5.6-percent gain from September to December 2009. As industrial and consumer demand have continued to rebound, so have chemical prices. Chemicals are used in manufacturing most consumer products, in addition to being a major input to the automotive and construction industries, so the overall economy greatly influences prices. Federal Reserve data on manufacturing shows factory capacity utilization has grown since its recession low in mid-2009, resulting in increased demand for chemicals and the subsequent upturn in the basic organic chemicals index.¹⁰ On the cost side of pricing pressures for chemicals manufacturers were increases in the indexes for crude oil and natural gas. Crude oil and natural gas are key material inputs to organic chemicals both as raw materials and as an energy source for manufacturing operations. In the first quarter of 2010, prices for crude oil and natural gas rose 17.9 percent and 8.6 percent, respectively.

The increase in the index for intermediate energy goods slowed to 4.5 percent in the first quarter of 2010, from 7.3 percent in the fourth quarter of 2009. Prices for gasoline advanced less, climbing 5.5 percent subsequent to a 13.8-percent rise in the fourth quarter of 2009. The indexes for residual fuels, home heating oil, and diesel fuel also rose less during the first quarter of 2010 than they had in the previous quarter. Prices for both liquefied petroleum gas and industrial electric power declined in the first quarter of 2010 after rising in the preceding quarter. By contrast, the rise in the index for natural gas to electric utilities

accelerated to 9.4 percent after moving up 1.4 percent in the final quarter of 2009. Prices for commercial electric power and lubricating oil materials advanced more than they had in the final quarter of 2009.

Prices for gasoline rose 5.5 percent in the 3-month period ended March 2010 subsequent to a 13.8-percent advance in the 3-month period ended December 2009. The worldwide economic rebound has driven economically sensitive energy prices higher. In early 2010, the International Energy Administration upped its global demand estimates for crude petroleum 1.9 percent to a record 86.7 million barrels per day.¹¹ The price of crude petroleum is the most important factor in determining gasoline prices, accounting for about 70 percent of gasoline's cost to consumers.¹² Abundant gasoline stocks, roughly 5.5 percent above their 5-year average, helped mitigate the pricing pressure for gasoline in the first quarter of 2010.

The index for liquefied petroleum gas (LPG) decreased 1.3 percent in the first quarter of 2010 after surging 41.0 percent during the last quarter of 2009. LPG is used, primarily in rural areas, as a heating fuel and is derived from fossil fuel. Late in 2009, prices for LPG surged as colder weather across the Nation depleted LPG stocks. According to the Energy Information Administration, ending stocks of LPG declined from 146 million barrels in October 2009 to 69 million barrels in March 2010.¹³ After peaking in January, prices for LPG declined substantially through March, as the end

of winter heating season and the beginning of the traditional inventory rebuilding cycle approached.

The index for intermediate foods and feeds turned down 1.2 percent in the first quarter of 2010, following a 2.7-percent advance in the fourth quarter of 2009. Leading this downturn, the index for prepared animal feeds fell 8.3 percent in the first quarter of 2010, subsequent to rising 3.9 percent in the preceding quarter. Prices for dairy products, young chickens, and confectionary materials also declined after moving up during the fourth quarter of 2009. By contrast, the index for beef and veal surged 10.5 percent following a 7.0-percent decrease in the previous quarter. Prices for unprocessed and packaged fish rose more during the first quarter of 2010 than they had during the previous quarter.

The 8.3-percent price decline in prepared animal feed prices during the first quarter of 2010 is attributable to both weak demand for beef and smaller herds, which pressured farmers to accept prices that were lower than expected when production plans were implemented in 2009.¹⁴ Demand for beef fell as a result of the economic recession, high unemployment, and abundant supplies of pork and poultry.¹⁵ Also contributing to sliding animal feed prices, inputs such as corn and soybeans experienced a sharp decline in prices, due to news that soybean and corn production will be near record levels for the 2009 and 2010 growing season.¹⁶

The index for dairy products fell 2.4 percent in the first quarter of 2010, following a 9.7-percent advance in the fourth quarter of 2009. Contributing significantly to lower prices for dairy products, the indexes for natural, processed, and imitation cheese and for natural cheese (except cottage cheese) experienced sharp declines of 6.1 and 8.2 percent in the first quarter of 2010 after surging 11.6 and 13.9 percent, respectively. Declining prices faced by dairy farmers in the first quarter of 2010 were mainly due to greater milk supplies due to an increase in production yields and herd sizes.¹⁷ This increased production, coupled with weaker demand, created a surplus, which drove dairy prices lower in the opening quarter of 2010.¹⁸

Current Price Trends Other Producer Price Highlights

The previous section of this analysis provided a detailed look at Producer Price Indexes for materials in the intermediate stage of processing. This section highlights price movements for goods in other stages of processing and the services sector.

Finished goods

The rate of increase in prices for finished goods slowed to 1.5 percent during the first quarter of 2010 compared with 2.3 percent in the final quarter of 2009. (See chart 2.) Leading the deceleration in finished goods prices, the index for energy goods advanced 2.9 percent in the first quarter of 2010 after

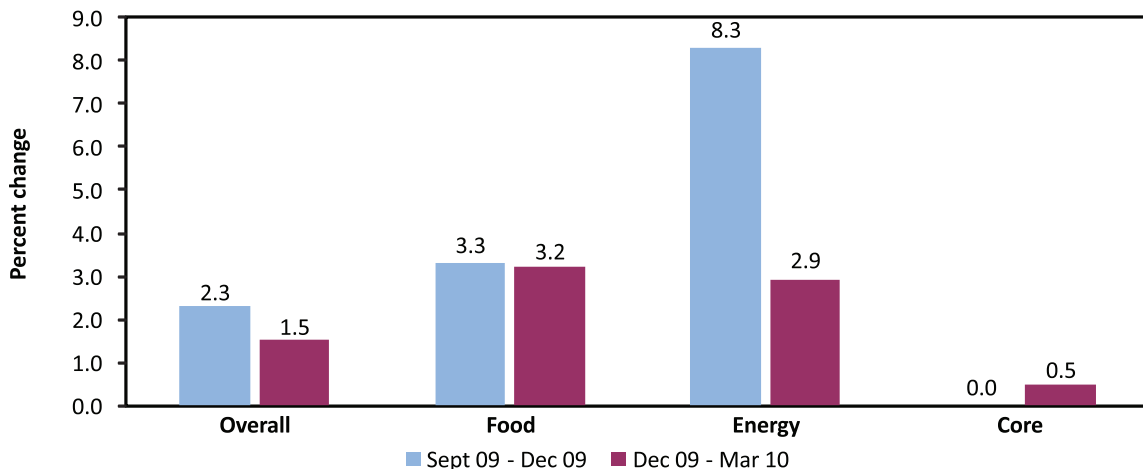
climbing 8.3 percent in the preceding quarter. By contrast, prices for goods other than foods and energy inched up 0.5 percent following no change in the fourth quarter of 2009. The index for finished consumer foods rose 3.2 percent in the first quarter of 2010, nearly matching its 3.3-percent advance in the previous quarter.

The index for finished energy goods moved up 2.9 percent in the first quarter of 2010 following an 8.3-percent jump during the fourth quarter of 2009. Price increases for gasoline slowed to 5.5 percent in the first quarter of 2010 from 13.8 percent in the prior quarter. The indexes for home heating oil and kerosene also rose less than they had in the final quarter of 2009. Prices for liquefied petroleum gas and residential electric power turned down in the first quarter of 2010 subsequent to advances in the preceding quarter. Conversely, the index for residential natural gas

increased 3.5 percent following a 0.1-percent decline in the final quarter of 2009. Prices for finished lubricants also turned up in the first quarter of 2010.

The index for finished goods less foods and energy edged up 0.5 percent during the first quarter of 2010 after no change in the fourth quarter of 2009. A 1.7-percent rise in first quarter prices for light motor trucks, following a 1.7-percent decline in the previous quarter, led the increase in finished core prices. The indexes for consumer plastic products, radio and television communication equipment, and sporting and athletic goods also turned up after falling in the final quarter of 2009. Civilian aircraft prices moved up at a faster rate in the first quarter of 2010 than they had in the prior quarter. Conversely, the index for cigarettes advanced 1.0 percent following a 2.6-percent gain in the fourth quarter of 2009. Prices for pharmaceutical preparations also increased

Chart 2. 3-month percent change in PPI for overall, food, energy, and core finished goods, seasonally adjusted



SOURCE: U.S. Bureau of Labor Statistics

less in the first quarter than they had in the preceding quarter. The index for alcoholic beverages turned down in the first quarter of 2010, while the index for major appliances decreased more than it had in the final quarter of 2009.

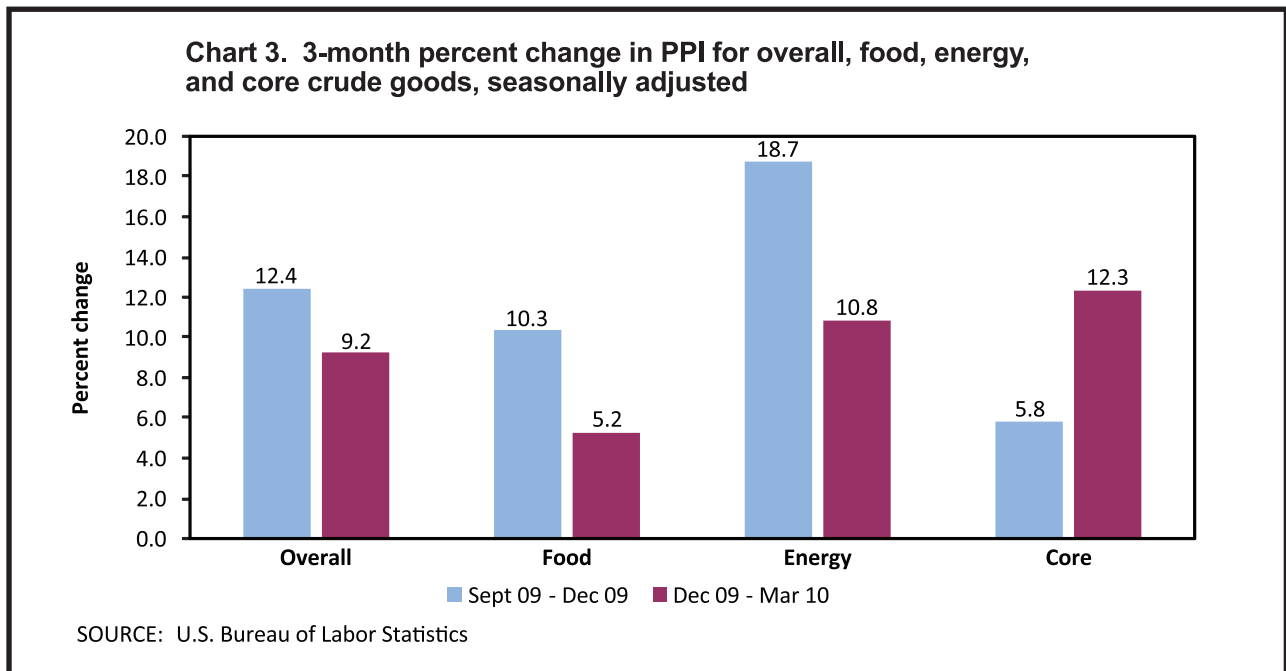
The index for finished consumer foods rose 3.2 percent in the first quarter of 2010, roughly the same rate of advance as in the final quarter of 2009. In the first quarter of 2010, higher prices for fresh and dry vegetables, meats, finfish and shellfish, and soft drinks outweighed lower prices for dairy products, cereal and bakery products, and processed young chickens.

Crude goods

The Producer Price Index for Crude Materials for Further Processing increased 9.2 percent in the 3 months ended March 2010 following a 12.4-percent climb from September to

December 2009. (See chart 3.) The advance in prices for crude energy materials slowed to 10.8 percent from 18.7 percent in the 3-month period ending in December. The index for crude foodstuffs and feedstuffs also rose less, advancing 5.2 percent from December to March after climbing 10.3 percent in the previous quarter. By contrast, the rise in the index for crude nonfood materials less energy accelerated to 12.3 percent during the first quarter of 2010 from 5.8 percent in the final quarter of 2009.

The index for crude energy materials rose 10.8 percent from December 2009 to March 2010 compared with an 18.7-percent climb for the 3 months ended December 2009. Natural gas prices moved up 8.6 percent following a 56.0-percent jump in the preceding quarter, while the coal index turned down 3.4 percent after rising 2.7 percent between September and December 2009. By contrast,



crude petroleum prices advanced 17.9 percent in the first quarter of 2010 following a 1.6-percent increase in the fourth quarter of 2009.

The index for crude foodstuffs and feedstuffs moved up 5.2 percent from December 2009 to March 2010, subsequent to a 10.3-percent advance in the previous quarter. This slower rate of increase can be attributed mostly to fluid milk prices, which rose 4.2 percent in the first quarter following a 27.7-percent jump in the 3 months ended December 2009. Indexes for corn and oilseeds turned down in the first quarter of 2010, and prices for slaughter hogs and slaughter chickens advanced less than they had in the fourth quarter of 2009. In contrast, the index for slaughter cattle turned up 15.7 percent in the first 3 months of 2010, compared with a 3.9-percent decrease in the previous 3-month period. Prices for unprocessed shellfish, ungraded chicken eggs, unprocessed finfish, and slaughter lambs all increased more from December 2009 to March 2010 than they had in the preceding 3-month period.

The advance in the index for crude nonfood materials less energy accelerated to 12.3 percent for the 3 months ended March 2010 from 5.8 percent for the 3 months ended December 2009. Wastepaper prices surged 60.6 percent in the first quarter from 2.5 percent in the fourth quarter, while the index for iron and steel scrap climbed 36.2 percent from December to March after inching down in the prior 3 months. For the 3 months ended

March 2010, prices for hides and skins, pulpwood, and phosphates rose more than they had in the final quarter of 2009. By contrast, in the first quarter of 2010, the index for copper ores declined 5.5 percent subsequent to rising 14.5 percent from September to December. Prices for gold ores also turned down, while the index for aluminum base scrap increased less than it had in the 3 months ended December 2009.

Trade industries


The Producer Price Index for the Net Output of Total Trade Industries moved up 2.6 percent in the first quarter of 2010 after edging up 0.1 percent in the last quarter of 2009. (Trade industry PPIs measure changes in margins received by wholesalers and retailers.) Leading this acceleration, margins received by merchant wholesalers of nondurable goods climbed 8.7 percent in the 3-month period ending in March subsequent to a 2.0-percent decline from September to December 2009. The margin indexes for merchant wholesalers of durable goods, supermarkets, and automotive parts and accessories stores also turned up in the first quarter of 2010. By contrast, the margin index for gasoline stations with convenience stores dropped 22.5 percent in the first 3 months of 2010 compared with a 22.1-percent gain in the last 3 months of 2009. Margins received by home centers also turned down in the first quarter of 2010. The discount department stores margin index advanced less than it had in the preceding 3-month period.

Transportation and warehousing industries

The Producer Price Index for the Net Output of Transportation and Warehousing Industries advanced 1.6 percent in the first quarter of 2010 subsequent to a 1.5-percent gain in the last quarter of 2009. For the 3-month period ended March 2010, higher prices received by the industries for couriers, airlines, pipeline transportation of crude oil, long distance general freight trucking (less than truckload), line haul railroads, deep sea freight transportation, and Coastal and Great Lakes freight transportation outweighed lower prices received by the industries for long distance general freight truckers (truckload) and general warehousing and storage.

Traditional service industries

The Producer Price Index for the Net Output of Total Traditional Service Industries moved up 0.6 percent in the first quarter of 2010 after increasing 0.3 percent in the fourth quarter of 2009. Leading this faster rate of

advance, the industry index for direct health and medical insurance carriers increased 3.5 percent in the 3-month period ended in March after edging up 0.2 percent from September to December. Prices received by offices of lawyers and by direct life insurance carriers also advanced at faster rates compared with the last quarter of 2009. The industry indexes for software publishers and passenger car rental turned up in the first quarter of 2010. By contrast, the depository credit intermediation industry group index fell 2.3 percent from December 2009 to March 2010 after rising 0.6 percent in the prior 3-month period. Prices received by securities brokerages also turned down in the first quarter of 2010. The industry indexes for portfolio managers and general medical and surgical hospitals increased less than they had in the 3-month period ended in December. 

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

Notes

¹ Price movements for PPIs described in this text include preliminary data for the months of December 2009 through March 2010. All PPI data are recalculated 4 months after original publication to reflect late data received by survey respondents. Seasonally adjusted PPIs are recalculated, on an annual basis, for 5 years, to reflect more recent seasonal patterns.

² *Gross Domestic Product: Fourth Quarter 2009 (Third Estimate)*, BEA 10–11 (Bureau of Economic Analysis, Mar. 26, 2010).

³ Ibid.

⁴ Ibid.

⁵ *Industrial Production and Capacity Utilization*, G.17 (419) (Board of Governors of the Federal Reserve System, April 15, 2010), Table 1 (page 8) and Table 11 (page 14).

⁶ Ibid.

⁷ Ibid.

- ⁸ U.S. Federal Reserve. *Industrial Production and Capacity Utilization Historical Data*. Online at http://www.federalreserve.gov/releases/g17/ipdisk/auto_sa.txt.
- ⁹ See U.S. Bureau of Labor Statistics, *Focus on Prices and Spending: Import and Export Prices*, Volume 1, Number 1. Online at http://www.bls.gov/opub/focus/volume1_number1/ipp_1_1.htm (visited May 14, 2010).
- ¹⁰ U.S. Federal Reserve. *Industrial Production and Capacity Utilization Historical Data*. Online at http://www.federalreserve.gov/releases/g17/ipdisk/utl_sa.txt.
- ¹¹ See “World oil demand to hit record high this year—IEA,” Reuters.com, April 13, 2010. Online at <http://uk.reuters.com/article/idUKLDE63C0Q420100413> (visited May 10, 2010).
- ¹² *Gasoline Explained: Factors Explaining Gasoline Prices*, Energy Information Administration. Online at http://tonto.eia.doe.gov/energyexplained/index.cfm?page=gasoline_factors_affecting_prices (visited May 10, 2010).
- ¹³ *Monthly Energy Review April 2010, Table 3.4, Petroleum Stocks*, Energy Information Administration. Online at http://www.eia.doe.gov/emeu/mer/pdf/pages/sec3_13.pdf (visited May 10, 2010).
- ¹⁴ Economic Research Service, U.S. Department of Agriculture, *Farm Income and Costs*. Online at <http://www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm>.
- ¹⁵ Economic Research Service, U.S. Department of Agriculture, *The Dairy Site, US Beef and Dairy Outlook Report*. Online at <http://www.thedairysite.com/articles/2136/us-beef-and-dairy-outlook-report-december-2009>.
- ¹⁶ *Corn & Soybean Digest*, “How Will the Market Balance Record Corn Production and Use?” Online at <http://cornandsoybeandigest.com/marketing/market-balance-corn-production-use-0519/index.html?imw=Y> (visited May 27, 2010).
- ¹⁷ National Agricultural Statistics Service, *Dairy Products, February 2010 Highlights*. Online at <http://usda.mannlib.cornell.edu/usda/nass/DairProd//2010s/2010/DairProd-04-01-2010.pdf> (visited May 27, 2010).
- ¹⁸ GRAINNET, *Food and Agricultural Policy Research Institute Study Sees Farm Income Decline and Lower Food Price Inflation*, online at http://www.grainnet.com/articles/Food_and_Agricultural_Policy_Research_Institute_Study_Sees_Farm_Income_Decline_and_Lower_Food_Price_Inflation-90799.html.