



Highlights of the 2013 PPI User Survey

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From December 2012 to May 2013, the Bureau of Labor Statistics (BLS) Producer Price Index (PPI) program conducted a user survey of its stakeholders in order to learn more about the program's data users and how they utilize PPI data. The survey was sent by email to more than 42,000 PPI contacts who had a preexisting relationship with the PPI, as either a survey respondent, a subscriber to a data product, or a user who had contacted the PPI program for technical information. To increase awareness, BLS highlighted the survey on the PPI website and announced it in the U.S. Federal Register. The survey resulted in a total of 3,790 responses.

Survey findings

The typical user of PPI data is a manager in a business that generates more than \$500 million in annual revenue and who

Related articles

More information on how the PPI is used is available at the following links:

- "The behavior of the Producer price Index in a global economy," *Monthly Labor Review*, <http://www.bls.gov/opub/mlr/2012/09/art2full.pdf>.
- Escalation Guide for Contracting Parties, <http://www.bls.gov/ppi/ppiescalation.htm>.

uses the PPI monthly as a general indicator of inflation and for price trend analysis. But there is more to the results than the profile of the typical user.

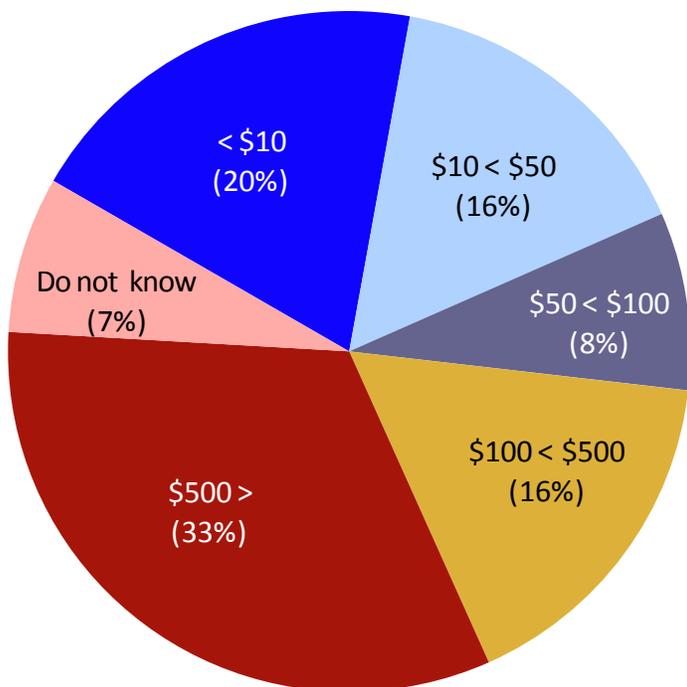
Who are PPI data users?

PPI data users are primarily businesses (58 percent), with individuals/private citizens ranked second (6 percent), and industry/trade associations, the federal government, and academia tied for third (5 percent each). Having businesses as the primary user isn't surprising, because PPI data provide information on industrial prices, which typically are used by commercial establishments for comparative price analysis, forecasting, and contract escalation.

On the basis of their organization's annual revenue, data users exhibited a fairly broad-based distribution, with 33 percent of the respondents working in organizations with more than \$500 million in annual revenue and 20 percent working in firms with annual revenue less than \$10 million. (See chart 1.) In contrast, U.S. Census data show that the distribution of U.S. businesses by size is skewed heavily toward small business, with 97 percent

Chart 1

What is the size of your business, based on annual revenue in millions of dollars?



Source: U.S. Bureau of Labor Statistics.

of domestic firms having less than \$10 million in annual revenue.¹ A major factor in small businesses' proportionally low level of representation among PPI data users seems to be familiarity of use, with 33 percent of the small firms surveyed stating that they are unfamiliar with the ways the PPI is used. Larger firms, which, in absolute numbers, have a small representation in the Census data, make up a much higher proportion of PPI data users, typically because such firms are financially more complex and historically have had more specialized needs for forecasting price change, accounting for contract escalation, and analyzing inflation.

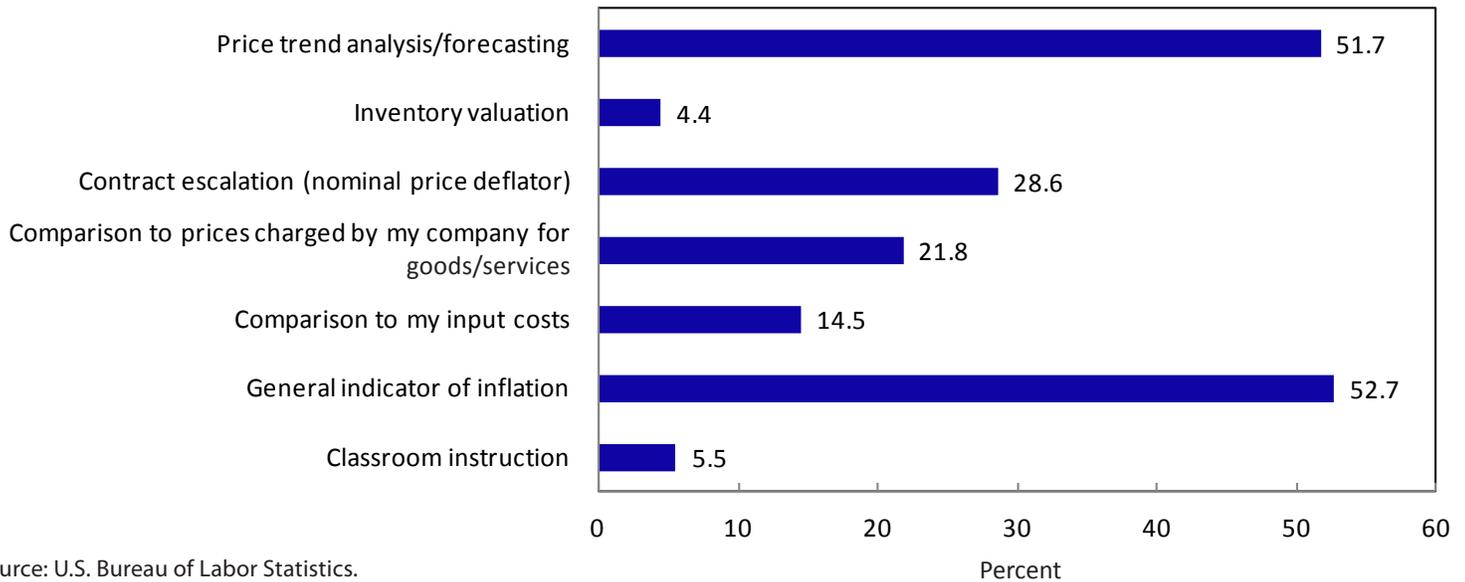
From an occupational standpoint, data users classified themselves most often as managers (20 percent), economists (12 percent), controllers/finance officers (10 percent), and business owners (9 percent). Business owners were identified as the most frequent data users in small business, and managers were most common among the users in large organizations.

What PPI data are used, and how?

PPI data most often are used as a general indicator of inflation, for price trend analysis and forecasting, for contract escalation, and for price comparisons of a company's products with those of its competitors. (See chart 2.) According to the user survey results, the value of the average contract escalated by the PPI is \$115 million dollars. This outcome illustrates the importance of the proper use of the PPI as a contract escalator, because a 1-percent error in the escalation of a \$115 million contract would result in more than a \$1-million adjustment. A majority of data users (55 percent) access both preliminary and final PPI data, about 25 percent use preliminary data exclusively, and about 10 percent use final data exclusively. A majority (53 percent) indicated that they use seasonally adjusted data. Most users (40 percent) access PPI data on a monthly basis, with quarterly use ranking second (24 percent).

Feedback from data users

Survey results reveal that PPI data users are satisfied with the quality of the data, the level of detail presented, and the customer service offered whenever they contact PPI staff. Data users find the data to be of high quality (79 percent), published at a sufficient periodicity (89 percent) and at

Chart 2**How do you use PPI data? (Check all that apply)**

Source: U.S. Bureau of Labor Statistics.

a level of detail satisfactory to their needs (80 percent). More than 90 percent of data users who contacted PPI staff agreed that staff members are easily accessible, are knowledgeable, and reply in a timely manner. The top areas requested for additional PPI coverage are price indexes for highway, street, and bridge construction; education; computer systems design; lessors of residential buildings (residential rents); and professional, scientific, and technical services. These areas will be explored for future inclusion in the PPI as funds and other resources permit.

Comparison with the previous user survey

The previous user survey was conducted in 1977.² Since that time, the United States has transitioned from a primarily manufacturing-based to a service-based economy and there have been correspondingly large changes in the PPI data available (such as the introduction of industry-based data, an expansion in coverage of the service sector of the economy, and an emphasis on stage-of-processing classification structures) and in data dissemination methods (such as email and the Internet). Also, changes in technology have resulted in a vastly different means of conducting user surveys. The 1977 survey was conducted via U.S. mail to more than 20,000 PPI stakeholders. By contrast, the 2013 survey was distributed electronically, via email, to 42,000 stakeholders.

The 1977 survey found that the top three uses of PPI data, in descending order, were to forecast price change, for citations in escalating contracts,³ and to measure price trends. The 2013 survey found the top three uses to be as a general indicator of inflation, for price trend analyses or forecasting, and for contract escalation. These results indicate little change in how PPI data were used in 1977 versus 2013, although it is reasonable to assume that some of the increased use of the PPI for inflation analysis and forecasting is due to the greater availability of personal computers and statistical software.

In the 1977 survey, most users indicated that they compared data on a month-to-month basis. Year to year was the second most chosen periodicity. In the 2013 survey, month-to-month comparisons were again the most frequently chosen and quarterly comparisons ranked second. This continued use of short-term comparisons illustrates the ongoing use of PPI data as a measure of inflation and for forecasting short-term price movements.

In the 1977 survey, the most frequently used data source was the *Wholesale Prices and Price Indexes Detailed Report*, followed by the WPI news release and the *Monthly Labor Review*. With the advent of electronic communication, the 2013 survey produced a predictably different result, with users citing the BLS website and Email subscription service as their most frequently used data sources.

Comparing the results from the two surveys reveals that PPI data use has remained surprising constant throughout the last 40 years, even with structural changes in the economy and the expansion and change in emphasis of the PPI. This constancy reflects both the efforts the PPI program has made to continue to provide pertinent economic information on the U.S. economy and users' reliance on the program's unbiased economic data. These efforts have been enhanced through electronic access to PPI information.

Price trends: producer inflation mixed in second quarter of 2013, energy goods move higher

After inching up 0.2 percent in the first quarter of 2013, the PPI for finished goods advanced 0.6 percent in the second quarter.⁴ This faster rate of inflation is attributable to finished energy goods prices, which climbed 1.6 percent from March to June, following a 1.0-percent decrease for the 3 months ended in March. In contrast, the index for finished consumer foods was unchanged in the second quarter, following a 0.8-percent rise from December to March, while prices for finished goods other than foods and energy moved up at a slightly slower rate than in the

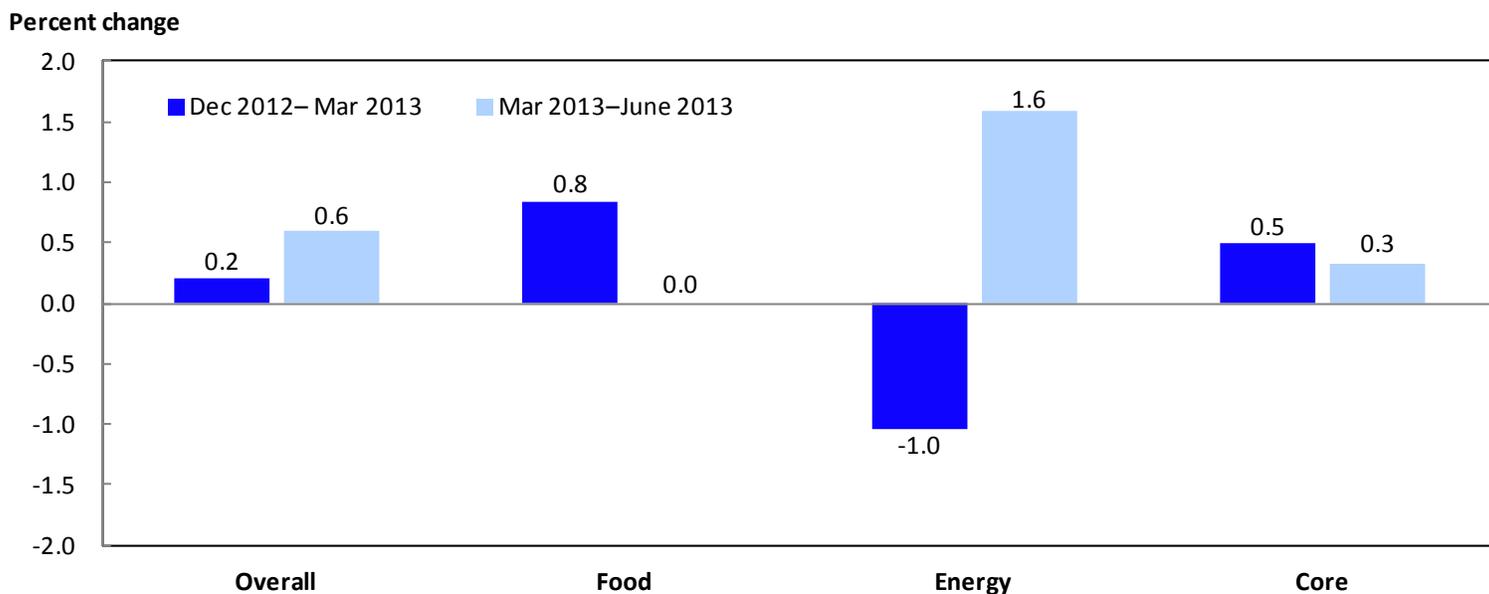
preceding quarter. (See chart 3.) At the earlier stages of processing, prices received by producers of intermediate materials, supplies, and components edged down 0.2 percent in the second quarter after advancing 0.3 percent in the first quarter. This reversal is attributable to prices for core intermediate goods, which also turned down from March to June. In contrast, the indexes for intermediate energy goods and intermediate foods and feeds moved higher in the second quarter, following declines in the previous quarter. A sharp upturn in prices for crude energy materials from March to June sent the index for crude materials for further processing up 1.7 percent, compared with a 1.8-percent drop over the previous 3-month period. In contrast, larger declines in prices for core crude goods and for crude foodstuffs and feedstuffs partially offset the overall impact of the upturn in the crude energy goods index.⁵

Economic background

Across the stages of processing, the rise in the indexes for energy goods was dominated by climbing prices for natural gas. Wellhead natural gas prices surged 21.3 percent from March to June after falling 7.4 percent in the first quarter. For the 12 months ended in June, the natural

Chart 3

Three-month percent change in PPI for overall, food, energy, and core finished goods, seasonally adjusted, first quarter 2013 and second quarter 2013



Source: U.S. Bureau of Labor Statistics.

gas index was 67.5 percent above its level a year before. In early to-mid-2012, natural gas prices were falling at a steep 12-month rate. Higher prices for natural gas lifted inflation rates for utility natural gas and utility electric power in the first half of 2013.

Beginning in late 2011 and continuing through late 2012, working natural gas in underground storage consistently remained at the top of its 5-year historical range. However, working gas in underground storage returned to a level in line with its 5-year average, 2,605 billion cubic feet (Bcf) as of June 28, 2013.⁶ From 2008 to 2012, both natural gas production (dry natural gas) and natural gas consumption climbed—19.4 percent and 9.6 percent, respectively. (Imports fell nearly 50 percent over that period.) Through the first 4 months of 2013, dry natural gas production leveled off to slightly more than 7,900 Bcf, while consumption increased to 9,870 Bcf.⁷ Electric utility demand for natural gas has remained relatively strong, with 26.0 percent of electric power generation derived from natural gas in April 2013.⁸

In the second quarter, inflation remained low to nonexistent for both unprocessed core goods and processed core goods for business demand, as well as more highly processed core finished goods.⁹ Data from the Board of Governors of the Federal Reserve System show that, as of May 2013, industrial production was 1.6 percent higher than a year earlier while capacity utilization was 77.6 percent, 0.2 percent below its level in May 2012 and 2.6 percent below its long-term average (from 1972 to 2012).¹⁰ The Bureau of Economic Analysis reported that gross domestic product (GDP) grew at a 1.8-percent seasonally adjusted annual rate in the first quarter of 2013, following an increase of 2.2 percent for all of 2012. According to Eurostat, European Union GDP declined 0.4 percent in 2012 and is forecasted to inch down again in the first quarter of 2013. Chinese GDP grew 7.7 percent for the 12 months ended in the first quarter of 2013; however, quarterly data show a slowdown in growth over the most recent six quarters ending March 2013.¹¹

Finished goods

For the 3 months ended in June, prices of finished energy goods advanced 1.6 percent, subsequent to a 1.0-percent

decrease from December to March. Accounting for more than 60 percent of this upturn, the index for gasoline rose 2.2 percent from March to June, compared with a 2.3-percent decline in the preceding quarter. Prices for finished lubricants also turned up after falling from December to March. The index for residential natural gas rose more than it had in the 3 months ended in March, while prices for diesel fuel fell less than in the first quarter. Conversely, the increase in the index for residential electric power slowed to 0.1 percent in the second quarter, from 0.7 percent in the previous 3-month period. Prices for liquefied petroleum gas decreased more than they had in the first quarter.

The index for finished consumer foods was unchanged from March to June, following a 0.8-percent increase in the first quarter. For the 3 months ended in June, prices for fresh vegetables (except potatoes) turned down 17.3 percent, compared with a 53.8-percent jump from December to March. Indexes for soft drinks and eggs for fresh use also fell in the second quarter after rising in the preceding quarter. In contrast, the meats index turned up 2.9 percent for the 3 months ended in June, subsequent to a 2.8-percent decline in the previous 3-month period. Prices for dairy products also moved up from March to June after decreasing in the first quarter. The index for potatoes advanced more than it had from December to March.

Price advances for finished goods less foods and energy slowed to 0.3 percent in the second quarter, compared with a 0.5-percent advance from December to March. Most of this slower rate of increase can be traced to the index for pharmaceutical preparations, which moved up 1.4 percent from March to June after rising 3.2 percent a quarter earlier. Similarly, prices for civilian aircraft and plastic products advanced at slower rates than they had in the previous 3-month period. In contrast, prices for light motor trucks turned up 0.4 percent subsequent to a 0.2-percent decrease in the first quarter. Indexes for commercial furniture and semiconductor manufacturing equipment also rose after falling in the previous 3-month period.

Intermediate goods

The PPI for intermediate materials, supplies, and components moved down 0.2 percent for the 3-month

period ended in June subsequent to a 0.3-percent advance in the 3 months ended in March. The downturn in the second quarter of 2013 can be traced to prices for intermediate goods less foods and energy, which fell, following a first-quarter rise. Conversely, the indexes for intermediate energy goods and for intermediate foods and feeds both increased in the second quarter after declining from December to March. (See chart 4.)

Prices for intermediate goods less foods and energy declined 0.5 percent in the second quarter, compared with a 1.3-percent rise from December to March. The index for basic organic chemicals led the downturn, falling 3.5 percent from March to June, subsequent to a 7.0-percent increase in the first quarter. Prices for thermoplastic resins and materials, lumber, and custom compounded plastic resins also decreased in the 3 months ended in June, after rising in the previous quarter. The index for nonferrous mill shapes fell more from March to June than in the first quarter. By contrast, the index for parts for manufacturing from plastics advanced 4.8 percent in the second quarter, following a 0.1-percent decline in the first quarter.

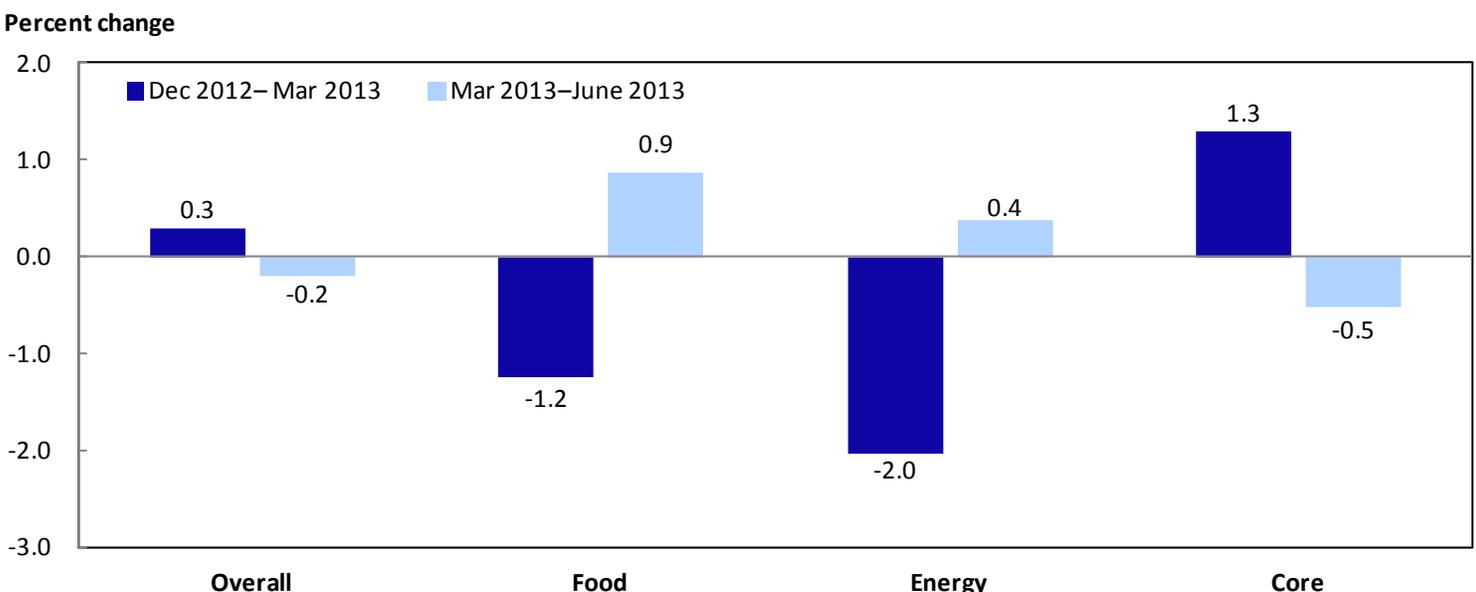
The index for intermediate energy goods turned up 0.4 percent for the 3 months ended in June, following

a 2.0-percent decrease in the previous quarter. Prices for industrial electric power climbed 1.8 percent from March to June, after falling 6.6 percent in the preceding quarter. The index for gasoline also turned up in the 3 months ended in June, following a decline in the 3 months ended in March. Prices for utility natural gas rose more in the second quarter, while the index for diesel fuel fell less than it had from December to March. In contrast, the index for jet fuel turned down 12.1 percent for the 3 months ended in June, following a 4.6-percent advance in the first quarter. Prices for lubricating oil base stocks also fell after increasing over the previous 3 months.

The index for intermediate foods and feeds climbed 0.9 percent for the 3 months ended in June, after moving down 1.2 percent in the first quarter. Nearly half of the second-quarter upturn can be attributed to prices for soybean cake and meal, which rose 12.4 percent after falling 5.1 percent in the first quarter. The indexes for meats, dairy products, and flour and flour base mixes and doughs increased following decreases from December to March. Conversely, the index for meat and bone meal turned down 10.2 percent in the second quarter, after

Chart 4

Three-month percent change in PPI for overall, food, energy, and core intermediate goods, seasonally adjusted, first quarter 2013 and second quarter 2013



Source: U.S. Bureau of Labor Statistics.

jumping 22.8 percent in the 3 months ended in March. Prices for unprocessed and packaged fish rose less than in the first quarter.

Crude goods

The index for crude materials for further processing rose 1.7 percent in the second quarter, after falling 1.8 percent from December to March. This reversal is attributable to prices for crude energy materials, which turned up after declining in the first quarter. In contrast, prices for crude nonfood materials less energy and crude foodstuffs and feedstuffs fell more in the second quarter than in the previous 3-month period. (See chart 5.)

The index for crude energy materials jumped 9.2 percent from March to June, following a 4.0-percent drop in the first quarter. More than half of the upturn can be traced to the natural gas index, which jumped 21.3 percent from March to June, following a decrease of 7.4 percent in the preceding quarter. Prices for crude petroleum and coal also moved higher in the second quarter, following declines in the first quarter.

The index for crude nonfood materials less energy fell 4.9 percent from March to June, after declining 0.9 percent in

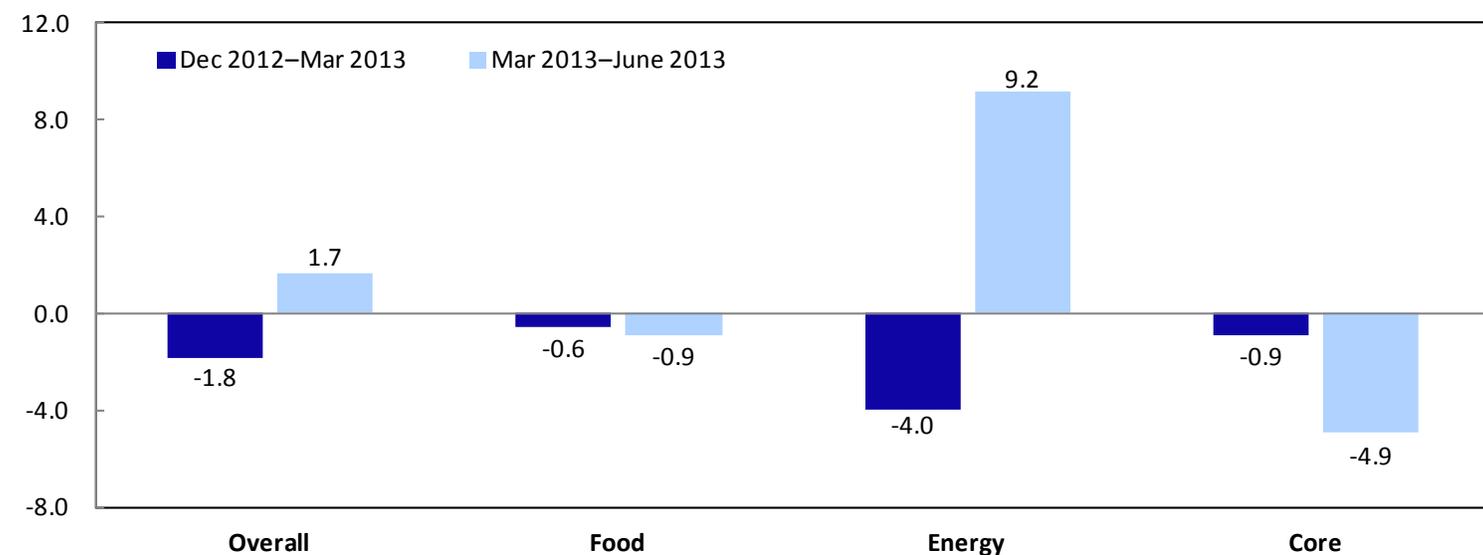
the previous quarter. About three-quarters of this faster rate of decrease is attributable to the index for carbon steel scrap, which dropped 9.9 percent in the second quarter, compared with a 3.5-percent increase from December to March. Prices for recyclable plastics and high grade wastepaper also turned down for the 3 months ended in June. The nonferrous metal ores index decreased in the second quarter, following no change over the previous quarter. In contrast, the decline in prices for nonferrous scrap slowed to 1.4 percent, from 6.7 percent in the first quarter. The index for iron ores also fell less than it had from December to March.

The index for crude foodstuffs and feedstuffs moved down 0.9 percent for the 3 months ended in June, compared with a 0.6-percent decline for the 3 months ended in March. Prices for slaughter steers and heifers fell 4.4 percent in the second quarter, following a 1.8-percent advance in the first quarter. The indexes for fresh vegetables (except potatoes), slaughter poultry, and unprocessed finfish also turned down after rising over the previous quarter. Prices for corn fell more in the second quarter than in the first. In contrast, the index for slaughter hogs surged 27.0 percent from March to June, following a 13.6-percent drop in the first quarter.

Chart 5

Three-month percent change in PPI for overall, food, energy, and core crude goods, seasonally adjusted, first quarter 2013 and second quarter 2013

Percent change



Source: U.S. Bureau of Labor Statistics.

Trade industries

The PPI for the net output of total trade industries moved up 0.2 percent for the 3 months ended June 2013, after edging up 0.1 percent from December to March. (Trade indexes measure changes in margins received by wholesalers and retailers.) In the second quarter, higher prices received by merchant wholesalers of durable goods, women's clothing stores, and electronics stores slightly outweighed lower prices received by family clothing stores, warehouse clubs and supercenters, discount department stores, and merchant wholesalers of nondurables goods.

Transportation and warehousing industries

The PPI for the net output of transportation and warehousing industries decreased 0.3 percent in the second quarter of 2013, compared with a 1.8-percent rise in the first quarter. Accounting for about 40 percent of the downturn, prices received by the scheduled air transportation industry group declined 0.5 percent from March to June, subsequent to a 3.5-percent advance in the previous quarter. Similarly, the indexes for couriers and express delivery services, long distance general freight trucking (by the truckload), and local specialized freight trucking of new goods turned down in the second quarter of 2013. Prices received by the U.S. Postal Service and line-haul railroads were unchanged after increasing from December to March. By contrast, the index for freight transportation arrangement advanced 1.3 percent in the second quarter, following a 0.5-percent rise in the first quarter.

Services less trade, transportation, and warehousing

The PPI for services less trade, transportation, and warehousing advanced 0.8 percent in the second quarter, after rising 0.4 percent in the first quarter. About half of this acceleration can be traced to prices received by the depository credit intermediation industry group, which increased 1.6 percent from March to June, following a

1.1-percent decline from December to March. The indexes for investment banking and securities dealing and for wireless telecommunications carriers also turned up in the second quarter of 2013. Prices received by portfolio managers advanced at a faster rate, compared with the rate for the 3 months ended in March. In contrast, the index for offices of lawyers edged down 0.1 percent from March to June, subsequent to a 2.4-percent increase from December to March. Prices received by general medical and surgical hospitals also fell in the second quarter, after rising over the previous quarter. ■

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Notes

1. *Statistics about Business Size (including Small Business) from the U.S. Census Bureau* (U.S. Census Bureau, 2012), table 2a, <http://www.census.gov/econ/smallbus.html>.
2. *The BLS Industrial Price Program: A Survey of Users*, Report 509 (U.S. Bureau of Labor Statistics, 1977).
3. "Escalating clauses are included in long-term sale or purchase contracts as a means to protect the buyer and the seller from unanticipated surges or drops in prices." See <http://www.bls.gov/ppi/ppiescalation.htm> for the BLS article titled "Escalation Guide for Contracting Parties."
4. PPI price movements described in this article include preliminary data for the period from March 2013 through June 2013. All PPI data are recalculated 4 months after their 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 core indexes.
6. *Working gas in underground storage* is defined as the volume of total natural gas in storage that is available for withdrawal. That volume reflects usable inventory, because natural gas stockpiles require permanent inventory (referred to as base gas) to maintain adequate reservoir pressure and ensure deliverability. (See *Natural Gas: Definitions, Sources, and Explanatory Notes* (U.S. Energy Information Administration), http://www.eia.gov/dnav/ng/TblDefs/ng_stor_wkly_tbldef2.asp; see also *Weekly Natural Gas Storage Report* (U.S. Energy Information Administration, July 18, 2013), <http://ir.eia.gov/ngs/ngs.html>, and, for archived information, see *Natural Gas* (U.S. Energy Information Administration), <http://www.eia.gov/naturalgas/reports.cfm>).
7. See *Natural Gas Monthly* (U.S. Energy Information Administration, June 2013), http://www.eia.gov/naturalgas/monthly/pdf/ngm_all.pdf; and, for archived information, *Natural Gas: Natural Gas Monthly* (U.S. Energy Information Administration, June 28, 2013), <http://www.eia.gov/naturalgas/monthly/>. The data cited are from the April 2013 report. (See Table 1, p. 3.)
8. For data on net electricity generation by energy source, see *Electricity* (U.S. Energy Information Administration), <http://www.eia.gov/electricity/data.cfm>; see also "Year-to-date natural gas use for electric power generation is down from 2012," *Today in Energy* (U.S. Energy Information Administration, April 11, 2013), <http://www.eia.gov/todayinenergy/detail.cfm?id=10771>.
9. More highly processed intermediate and finished goods commonly exhibit price movements that are somewhat different from price movements for less processed goods because basic material costs tend to be a smaller portion of total costs for producers of more highly processed goods than for manufacturers of less processed goods. Contracts and escalation agreements also can delay or mitigate the pass-through effect of early-stage price volatility at successive stages of processing.
10. *Industrial Production and Capacity Utilization - G.17* (Board of Governors of the Federal Reserve System, June 14, 2013), <http://www.federalreserve.gov/releases/G17/20130614/>.
11. "Gross Domestic Product: First Quarter 2013 (Third Estimate)--Corporate Profits: First Quarter 2013 (Revised Estimate)," BEA 13-30, Bureau of Economic Analysis, June 26, 2013, at http://www.bea.gov/newsreleases/national/gdp/2013/pdf/gdp1q13_3rd.pdf, table 1, page 6. For European GDP data from Eurostat, visit their homepage at <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>. A link in the left-hand sidebar labeled "Real GDP growth rate" takes the user to a table of GDP figures for the entire Euro zone. For data from the National Bureau of Statistics of China, visit <http://www.stats.gov.cn/english/>. Chinese GDP data are available by linking to <http://www.stats.gov.cn/english/statisticaldata/Quarterlydata/>.