Department of Labor

Bureau of Labor Statistics
FOR DATA ONLY: (202) 691-5200
FOR TECHNICAL INFORMATION: (202) 691-7705

MEDIA CONTACT: (202) 691-5902
http://www.bls.gov/ppi

Washington, D.C. 20212

USDL 07-0073

TRANSMISSION OF MATERIAL IN
THIS RELEASE IS EMBARGOED
UNTIL 8:30 A.M. (EST), WEDNESDAY, January 17, 2007

## Producer Price Indexes - December 2006

The Producer Price Index for Finished Goods increased 0.9 percent in December, seasonally adjusted, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. This rise followed a 2.0-percent advance in November and a 1.6-percent decline in October. At the earlier stages of processing, prices received by manufacturers of intermediate goods moved up 0.5 percent in December after climbing 0.7 percent a month earlier, and the crude goods index increased 2.9 percent following a 15.7-percent gain in November. (See table A.)

Table A. Monthly and annual percent changes in selected stage-of-processing price indexes, seasonally adjusted

| Month | Finished goods |  |  |  |  | Intermediate goods | Crude goods |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Foods | Energy | Except foods and energy | Change in finished goods from 12 months ago (unadj.) |  |  |
| 2005 |  |  |  |  |  |  |  |
| Dec. | 0.7 | 0.8 | 2.4 | 0.0 | 5.4 | 0.3 | -3.5 |
| 2006 |  |  |  |  |  |  |  |
| Jan. | . 3 | -. 2 | . 1 | . 4 | 5.6 | 1.0 | -. 8 |
| Feb. | -1.2 | -2.2 | -4.5 | . 3 | 3.9 | -. 5 | -8.4 |
| Mar. | . 4 | . 4 | 1.5 | . 2 | 3.6 | . 2 | -2.6 |
| Apr. | . 9 | . 3 | 4.0 | . 1 | 4.1 | 1.0 | 2.6 |
| May | . 1 | -. 8 | . 8 | . 3 | 4.5 | 1.1 | 1.7 |
| June | . 6 | 1.3 | 1.2 | . 1 | 4.9 | . 5 | -2.5 |
| July | -. 1 | . 1 | . 7 | -. 6 | 4.0 | . 3 | 2.6 |
| Aug. | r . 4 | 1.2 | r -. 3 | r. 4 | r 3.8 | . 5 | r 2.5 |
| Sept. | r -1.4 | . 7 | r -8.1 | r. 3 | . 9 | r -1.5 | r -3.1 |
| Oct. | -1.6 | -. 8 | -5.0 | -. 9 | -1.6 | -1.1 | -10.5 |
| Nov. | 2.0 | . 1 | 6.1 | 1.3 | . 9 | . 7 | 15.7 |
| Dec. | . 9 | 1.7 | 2.5 | . 2 | 1.1 | . 5 | 2.9 |

$\mathrm{r}=\mathrm{revised}$. Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for August 2006 have been revised to reflect the availability of late reports and corrections by respondents.

Among prices for finished goods, the index for energy goods rose 2.5 percent in December compared with a 6.1-percent advance in the prior month. Price increases for finished goods other than foods and energy also slowed in December, gaining 0.2 percent following a 1.3-percent November advance. By contrast, the index for finished consumer foods moved up 1.7 percent after rising 0.1 percent in the previous month.

Before seasonal adjustment, the Producer Price Index for Finished Goods advanced 0.5 percent in December to $160.5(1982=100)$. In 2006, finished goods prices increased 1.1 percent following a $5.4-$ percent rise in 2005. This slower rate of advance is attributable to the index for finished energy goods, which fell 2.0 percent in 2006 after climbing 23.9 percent a year earlier. By contrast, prices for finished goods other than foods and energy moved up 2.0 percent in 2006 following a 1.4-percent gain in 2005, and the index for finished consumer foods rose slightly more than it had a year earlier- 1.8 percent and 1.7 percent, respectively. At the earlier stages of processing, prices received by intermediate goods producers increased 2.8 percent in 2006 compared with an 8.6 -percent advance in the preceding year, while the crude goods index declined 2.4 percent after moving up 21.1 percent in 2005. (See summary table below.)

Summary of December-to-December and 3-month seasonally adjusted annual rates for selected stages of processing

| Grouping | Percentage change 12 months ended December |  |  | Seasonally adjusted annual rate for 3 months ended |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { March } \\ 2006 \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2006 \end{aligned}$ | September2006 | $\begin{array}{\|c\|} \hline \text { December } \\ 2006 \end{array}$ |
|  | 2004 | 2005 | 2006 |  |  |  |  |
| Finished goods | 4.2 | 5.4 | 1.1 | -2.0 | 6.7 | -4.6 | 5.1 |
| Finished consumer foods | 3.1 | 1.7 | 1.8 | -7.9 | 2.9 | 8.5 | 4.1 |
| Finished energy goods | 13.4 | 23.9 | -2.0 | -11.4 | 26.6 | -27.2 | 14.4 |
| Finished goods less foods and energy | 2.3 | 1.4 | 2.0 | 3.9 | 1.8 | . 3 | 2.3 |
| Finished consumer goods, excluding foods and energy | 2.2 | 1.6 | 1.8 | 4.2 | 1.4 | -. 2 | 1.7 |
| Capital equipment | 2.4 | 1.2 | 2.3 | 3.6 | 2.2 | . 8 | 3.0 |
| Intermediate materials, supplies, and components | 9.2 | 8.6 | 2.8 | 3.0 | 11.1 | -2.6 | . 2 |
| Intermediate foods and feeds | -2.3 | 2.4 | 5.7 | -2.1 | -1.5 | 4.6 | 23.4 |
| Intermediate energy goods | 15.8 | 26.2 | -4.4 | -7.8 | 19.6 | -25.7 | 3.4 |
| Intermediate materials less foods and energy | 8.3 | 4.8 | 4.7 | 6.5 | 9.8 | 4.2 | -1.4 |
| Materials for nondurable manufacturing | 13.7 | 8.9 | 2.1 | 5.7 | 11.6 | -5.1 | -2.7 |
| Materials for durable manufacturing | 18.3 | 5.9 | 13.1 | 14.9 | 33.9 | 9.7 | -3.2 |
| Materials and components for construction | 10.1 | 6.1 | 4.3 | 7.7 | 8.2 | 4.7 | -2.9 |
| Crude materials for further processing | 17.4 | 21.1 | -2.4 | -38.6 | 6.9 | 7.5 | 28.6 |
| Foodstuffs and feedstuffs | -2.6 | 1.6 | 2.9 | -29.1 | 3.9 | 18.8 | 27.6 |
| Crude energy materials | 35.9 | 42.2 | -11.4 | -55.7 | -11.5 | 8.6 | 44.6 |
| Crude nonfood materials less energy | 20.5 | 5.2 | 16.7 | 17.9 | 68.9 | -7.4 | . 8 |

NOTE: Late reports and corrections by respondents may cause some indexes to change 4 months after original publication. In addition, seasonally adjusted indexes may be revised for 5 years due to the recalculation of seasonal factors each January.

## Finished goods

The index for finished energy goods rose 2.5 percent in December following a 6.1 -percent jump in the prior month. Leading this deceleration, gasoline prices increased 7.1 percent after surging 17.9 percent in November. The indexes for residential natural gas, home heating oil, and diesel fuel also moved up less in December than they had a month earlier. Prices for finished lubricants were unchanged following gains in November. By contrast, the index for liquefied petroleum gas advanced 4.0 percent in December after decreasing 2.8 percent in the previous month. Prices for residential electric power also turned up after declining in November. (See table 2.)

The index for finished goods other than foods and energy advanced 0.2 percent in December following a 1.3-percent jump in the preceding month. Price increases for light motor trucks slowed to 0.7 percent after climbing 13.7 percent in November. The indexes for passenger cars, alcoholic beverages, cosmetics and other toilet preparations, semiconductor manufacturing equipment, agricultural machinery and equipment, and commercial furniture turned down in December. Civilian aircraft prices were unchanged compared with advances in November, while the index for heavy motor trucks rose less in December than it had a month earlier. By contrast, prices for pharmaceutical preparations moved up 0.6 percent following a 0.4 -percent decline in November. The indexes for integrating and measuring instruments, railroad equipment, and sanitary paper products also turned up in December. Prices for mobile homes fell less than they had in November.

Table B. Monthly and annual percent changes in selected price indexes for intermediate goods and crude goods, seasonally adjusted

| Month | Intermediate goods |  |  |  | Crude goods |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Foods | Energy | Except foods and energy | Change in intermediate goods from 12 months ago (unadj.) | Foods | Energy (unadj.) | Except foods and energy | Change in <br> crude goods <br> from <br> 12 months ago <br> (unadj.) |
| 2005 |  |  |  |  |  |  |  |  |
| Dec. | 0.3 | -0.4 | 0.4 | 8.6 | 2.5 | -8.1 | 1.9 | 21.1 |
| 2006 |  |  |  |  |  |  |  |  |
| Jan. | . 7 | 1.6 | . 9 | 9.2 | -3.1 | . 2 | -. 2 | 22.1 |
| Feb. | -1.1 | -3.2 | . 3 | 8.0 | -3.0 | -14.9 | 3.1 | 12.6 |
| Mar. | -. 1 | -. 4 | . 4 | 7.2 | -2.4 | -4.3 | 1.3 | 4.7 |
| Apr. | -. 7 | 3.0 | . 6 | 7.7 | -1.0 | 3.6 | 5.3 | 4.6 |
| May | -. 3 | 1.3 | 1.1 | 9.2 | -2.5 | . 8 | 9.2 | 9.6 |
| June | . 7 | . 3 | . 7 | 9.5 | 4.5 | -7.1 | -. 8 | 8.7 |
| July | . 7 | -. 7 | . 5 | 8.7 | 1.9 | 3.6 | 1.3 | 6.2 |
| Aug. | r - . 2 | r 1.1 | . 4 | 8.8 | r .4 | r 6.9 | r -3.9 | r 5.1 |
| Sept. | r. 6 | -7.5 | . 1 | 4.7 | r 2.0 | r -7.8 | r . 8 | -7.8 |
| Oct. | . 4 | -5.5 | 0 | . 4 | 3.1 | -23.5 | -1.3 | -22.0 |
| Nov. | 3.4 | 4.2 | -. 3 | 2.4 | 2.8 | 35.8 | . 5 | -8.5 |
| Dec. | 1.5 | 2.3 | -. 1 | 2.8 | . 2 | 5.5 | 1.0 | -2.4 |

$\mathrm{r}=$ revised. Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for August 2006 have been revised to reflect the availability of late reports and corrections by respondents.

The index for finished consumer foods increased 1.7 percent in December after inching up 0.1 percent in the previous month. Prices for fresh and dry vegetables jumped 21.7 percent following a 14.2-percent drop in November. The indexes for fresh fruits and melons, finfish and shellfish, and processed turkeys also turned up in December. Prices for processed young chickens and processed fruits and vegetables rose more than they had in November. By contrast, the soft drinks index decreased 0.5 percent in December after advancing 2.1 percent a month earlier. Prices for beef and veal and for bakery products also moved down following gains in November. The index for dairy products increased less in December than it had in the prior month.

## Intermediate goods

The Producer Price Index for Intermediate Materials, Supplies, and Components increased 0.5 percent in December following a 0.7 -percent advance in November. Prices for intermediate energy goods and for intermediate foods and feeds rose less than they had in the previous month. The index for materials for nondurable manufacturing fell more in December than in the preceding month. Conversely, the indexes for construction materials, as well as materials for durable manufacturing, declined less in December than they had in the prior month. Prices for intermediate goods less foods and energy fell 0.1 percent after decreasing 0.3 percent a month earlier. (See table B.)

The index for intermediate energy goods increased 2.3 percent in December compared with a 4.2percent gain in November. Diesel fuel prices moved up 10.2 percent after advancing 14.6 percent in the preceding month. The indexes for gasoline, industrial natural gas, and residual fuels also rose less than they had in November. Prices for natural gas to electric utilities and commercial electric power turned down in December after increasing in the prior month. Alternatively, the jet fuels index advanced 12.6 percent following a 5.4-percent decline in November. Prices for liquefied petroleum gas also turned up in December after falling in November. (See table 2.) In 2006, prices for intermediate energy goods declined 4.4 percent after advancing 26.2 percent in 2005.

The rate of increase in the intermediate foods and feeds index slowed from 3.4 percent in November to 1.5 percent in December. Prices for prepared animal feeds rose 4.0 percent in December compared with a 7.4percent gain a month earlier. The indexes for natural, processed, and imitation cheese and for shortening and cooking oils also advanced less than they had in November. Beef and veal prices turned down in December after rising in the preceding month. The indexes for flour and for refined sugar and byproducts fell more in December than they had a month earlier. By contrast, prices for processed young chickens jumped 10.4 percent in December following a 1.5-percent gain in the prior month. In 2006, the index for intermediate foods and feeds advanced 5.7 percent following a 2.4-percent increase in 2005.

Prices for materials for nondurable manufacturing declined 0.5 percent in December after falling 0.4 percent in November. The indexes for plastic resins and materials, finished fabrics, primary basic organic chemicals, synthetic rubber, and gray fabrics moved down in December. These decreases outweighed rising prices for ethanol, paper, inedible fats and oils, fertilizer materials, intermediate basic organic chemicals, and basic inorganic chemicals. The index for materials for nondurable manufacturing advanced 2.1 percent in 2006 following an 8.9-percent gain in 2005.

The index for materials and components for construction moved down 0.1 percent in December after declining 0.5 percent in November. Prices for steel mill products fell 0.4 percent compared with a 4.4-percent drop in the prior month. The indexes for plastic construction products and softwood lumber also decreased at slower rates than they had a month earlier. Prices for asphalt felts and coatings, wiring devices, and mineral wool for structural insulation turned up after declining in November. By contrast, the index for nonferrous wire and cable moved down 2.6 percent following a 1.1-percent decline in November. Prices for concrete products rose less in December than in the prior month. During 2006, prices for materials and components for construction advanced 4.3 percent after climbing 6.1 percent in the previous year.

The index for materials for durable manufacturing declined 0.2 percent in December following a 0.5 percent decrease in November. Falling prices for semifinished steel mill products; hot rolled steel bars, plates, and structural shapes; thermoplastic resins; copper and brass mill shapes; and building paper and board outweighed price increases for cold rolled steel sheet and strip, hot rolled steel sheet and strip, and primary aluminum (except extrusion billet). In 2006, the index for materials for durable manufacturing jumped 13.1 percent following a 5.9-percent advance in 2005.

## Crude goods

The Producer Price Index for Crude Materials for Further Processing rose 2.9 percent in December after climbing 15.7 percent in November. Prices for crude energy materials and for foodstuffs and feedstuffs advanced less than they had a month earlier. Conversely, the index for basic industrial materials rose more than it had in the preceding month. (See table B.)

Price increases for crude energy materials slowed to 5.5 percent in December from 35.8 percent a month earlier. The index for natural gas advanced 6.8 percent following a 92.8 -percent jump in the previous month. The coal index decreased 0.6 percent after edging down 0.2 percent in the prior month. By contrast, crude petroleum prices turned up 5.0 percent following a 1.2-percent decline in November. (See table 2.) In 2006, the crude energy materials index fell 11.4 percent after climbing 42.2 percent in 2005.

The index for crude foodstuffs and feedstuffs inched up 0.2 percent after increasing 2.8 percent in the preceding month. In December, rising prices for fluid milk, fresh and dry vegetables, fresh fruits and melons, unprocessed finfish, and alfalfa hay more than offset declining prices for slaughter turkeys, wheat, and slaughter cattle. In 2006, crude foodstuffs and feedstuffs prices rose 2.9 percent following a 1.6-percent increase in 2005.

The basic industrial materials index moved up 1.0 percent after rising 0.5 percent a month earlier. Iron and steel scrap prices turned up 6.8 percent in December following a 5.6 -percent decrease in November. The index for softwood logs, bolts, and timber also increased following a decline in the previous month. Prices for wastepaper rose more than they had in November. By contrast, the advance in the gold ores index slowed to 1.2 percent in December after rising 12.0 percent a month earlier. Prices for aluminum base scrap also increased less in December than a month earlier. The indexes for copper base scrap and for construction sand, gravel, and crushed stone turned down after rising in the prior month. Prices for iron ore fell after no change in November. The basic industrial materials index climbed 16.7 percent in 2006 following a 5.2-percent gain in 2005.

## Net output price indexes for mining, manufacturing, and services industries

Mining. The Producer Price Index for the Net Output of Total Mining Industries increased 3.4 percent in December following a 22.8 -percent advance in the previous month. (Net output price indexes are not seasonally adjusted.) Prices received by the oil and gas extraction industry group gained 5.6 percent after surging 37.8 percent in November. The industry indexes for gold ore mining and for oil and gas well drilling also rose less than they had in the preceding month. Prices received by the iron ore mining industry declined following no change in November. The industry index for bituminous coal and lignite surface mining decreased more than it had a month earlier. Prices received by the bituminous coal underground mining industry turned down in December, and the industry index for crushed and broken limestone mining and quarrying was unchanged after rising in November. Conversely, prices paid to the anthracite mining industry moved up 0.6 percent in December after falling 3.2 percent in the prior month. In December, the Producer Price Index for the Net Output of Total Mining Industries was 219.0 (December $1984=100$ ). In 2006, prices received by the mining sector fell 6.6 percent after rising 38.7 percent in 2005.

Manufacturing. The Producer Price Index for the Net Output of Total Manufacturing Industries edged up 0.3 percent in December after increasing 0.4 percent in the previous month. In December, higher prices received by the manufacturers of petroleum and coal products, food, computer and electronic products, machinery, and fabricated metal products outweighed lower prices paid to the manufacturers of transportation equipment, chemicals, and beverage and tobacco products. In December, the Producer Price Index for the Net Output of Total Manufacturing Industries was 157.0 (December $1984=100$ ). In 2006, prices received by the manufacturing sector increased 2.7 percent compared with a 5.4 -percent rise in 2005.

Services. Among services industries in December, the industry index for commercial banking decreased 3.9 percent after a 0.8 -percent gain in November. Prices paid to securities brokerages and savings institutions also turned down in December after rising in the prior month. The industry index for scheduled passenger air transportation declined after no change in November. Alternatively, prices received by non-casino hotels and motels increased 3.6 percent following a 0.6 -percent decrease in November. The industry indexes for general medical and surgical hospitals, investment banking and securities dealing, and wired telecommunications carriers also turned up in December after declining a month earlier.
*****
Producer Price Index data for January 2007 are scheduled to be released on Friday, February 16, 2007, at 8:30 a.m. (EST).

## PPI Weights to be Updated

The Bureau of Labor Statistics will soon update the value weights used to calculate Producer Price Indexes to more accurately reflect recent production and marketing patterns. The new weights, which will be introduced in February 2007 with the release of January 2007 index data, will be based on shipment values from the year 2002. These value weights come from the Census of Manufactures, the Census of Mining, the Census of Services, and the Census of Agriculture. PPI weights have been based on 1997 census shipment values since January 2002.

All indexes will be affected by this weight update, including all the industry net output indexes, as well as those calculated for traditional commodity groupings. In addition, weights will be updated from the 1997 to the 2002 census for all stage-of-processing indexes, durability of product indexes, and special commodity-grouping indexes. This weight revision will not change the arithmetic reference base, in most cases $1982=100$, of the PPI index system.

It is important to note that the PPI classification system and aggregation structure will not change as a result of these weight revisions. The weight update, however, will result in significant shifts in the relative importance of various industries and products, and these shifts will impact future aggregate indexes in a manner commensurate with the relative gains and losses in value weights from 1997 to 2002.

Relative importance figures as of December 2006, based on the 1997 and 2002 weighting schemes, will be available on February 14, 2007, two business days prior to the release of January 2007 PPI data. This information will be available on the PPI website at www.bls.gov/ppi or by calling the Division of Industrial Prices and Price Indexes, Section of Index Analysis and Public Information at (202) 691-7705.

## Recalculated Seasonal Adjustment Factors and Relative Importance Figures to be Available on February 14, 2007

Each year with the release of PPI data for January, seasonal adjustment factors are recalculated to reflect price movements from the just-completed calendar year. This routine annual calculation may result in revisions to seasonally adjusted indexes for the previous 5 years. The following information will be available on February 14, 2007 (2 workdays prior to the release of PPI data for January 2007 on February 16):

- Direct seasonal factors for commodity indexes for the year 2007,
- Recalculated seasonal factors for the last 5 years (2002-2006) for the commodity indexes,
- Recalculated seasonal factors for the last 5 years (2002-2006) for the stage-of-processing indexes.

In addition to recalculated seasonal factors, December 2006 relative importance figures also will be available on February 14, 2007.

To obtain this information, visit the PPI website at www.bls.gov/ppi or by calling the Division of Industrial Prices and Price Indexes, Section of Index Analysis and Public Information at (202) 691-7705.

## New Aggregate Net Output Indexes Available

With the February 16, 2007, release of January 2007 Producer Price Index (PPI) data, a new set of industrybased net output aggregate indexes will be published. As with all net output aggregate indexes, the components are assigned weights which exclude shipments to other industries within their aggregation. The new indexes, which will appear in Table 4 of the PPI News Release and Tables 4 and 5 of the PPI Detailed Report, are as follows:

- Total mining, utilities, and manufacturing industries
- Total trade industries
- Total wholesale trade industries
- Total retail trade industries
- Transportation and warehousing industries
- Transportation industries
- Delivery and warehouse industries
- Total traditional service industries
- Selected healthcare industries
- Information
- Other selected traditional service industries

Additional information about these indexes is available on the PPI website at www.bls.gov/ppi or by calling the Division of Industrial Prices and Price Indexes, Section of Index Analysis and Public Information at (202) 6917705.

## Technical Note

## Brief Explanation of Producer Prices Indexes

The Producer Price Index (PPI) of the Bureau of Labor Statistics (BLS) is a family of indexes that measure the average change over time in the prices received by domestic producers of goods and services. PPIs measure price change from the perspective of the seller. This contrasts with other measures, such as the Consumer Price Index (CPI). CPIs measure price change from the purchaser's perspective. Sellers' and purchasers' prices can differ due to government subsidies, sales and excise taxes, and distribution costs.

More than 8,000 PPIs for individual products and groups of products are released each month. PPIs are available for the products of virtually every industry in the mining and manufacturing sectors of the U.S. economy. New PPIs are gradually being introduced for the products of industries in the construction, trade, finance, and services sectors of the economy.

More than 100,000 price quotations per month are organized into three sets of PPIs: (1) Stage-of-processing indexes, (2) commodity indexes, and (3) indexes for the net output of industries and their products. The stage-of-processing structure organizes products by class of buyer and degree of fabrication. The commodity structure organizes products by similarity of end use or material composition. The entire output of various industries is sampled to derive price indexes for the net output of industries and their products.

## Stage-of-Processing Indexes

Within the stage-of-processing system, finished goods are commodities that will not undergo further processing and are ready for sale to the final-demand user, either an individual consumer or business firm. Consumer foods include unprocessed foods such as eggs and fresh vegetables, as well as processed foods such as bakery products and meats. Other finished consumer goods include durable goods such as automobiles, household furniture, and appliances, as well as nondurable goods such as apparel and home heating oil. Capital equipment includes durable goods such as heavy motor trucks, tractors, and machine tools.

The stage-of-processing category for intermediate materials, supplies, and components consists partly of commodities that have been processed but require further processing. Examples of such semifinished goods include flour, cotton yarn, steel mill products, and lumber. The intermediate goods category also encompasses nondurable, physically complete items purchased by business firms as inputs for their operations. Examples include diesel fuel, belts and belting, paper boxes, and fertilizers.

Crude materials for further processing are products entering the market for the first time that have not been manufactured or fabricated and that are not sold directly to consumers. Crude foodstuffs and feedstuffs include items such as grains and livestock. Examples of crude nonfood materials include raw cotton, crude petroleum, coal, hides and skins, and iron and steel scrap.

## Commodity Indexes

The commodity classification structure of the PPI organizes products by similarity of end use or material composition, disregarding industry of origin. Fifteen major commodity groupings (two-digit commodity codes) make up the All Commodities Index. Each major commodity grouping includes (in descending order of aggregation) subgroups (three-digit codes), product classes (four-digit codes), subproduct classes (six-digit codes), and individual items (eight-digit codes). Nearly all eight-digit commodities under the traditional commodity coding system are now derived from corresponding industry-classified product indexes. In such instances, movements in the traditional commodity price indexes and corresponding percent changes will be virtually identical to their industry-based counterparts, even if their index levels differ.

## Industry Net-Output Price Indexes

PPIs for the net output of industries and their products are grouped according to the North American Industry Classification System (NAICS). Prior to the release of January 2004, industry-based PPIs were published according to the Standard Industrial Classification (SIC) system. Industry price indexes are compatible with other economic time series organized by industry, such as data on employment, wages, and productivity. Table 5 of the PPI Detailed Report includes data for NAICS industries and industry groups (3-, $4-$, 5 -, and 6 -digit codes); Census product classes ( 7 - and 8 -digit codes), products ( 9 -digit codes), and more detailed subproducts (11-digit codes); and, for some industries, indexes for other sources of revenue.

Indexes may represent one of three kinds of product categories. Every industry has primary product indexes to show changes in prices received by establishments classified in the industry for products made primarily, but not necessarily exclusively, by that industry. The industry classification of an establishment is determined by which products make up a plurality of its total shipment value. In addition, most industries have secondary product indexes that show changes in prices received by establishments classified in the industry for products chiefly made in some other industry. Finally, some industries have miscellaneous receipts indexes to show price changes in other sources of revenue received by establishments within the industry that are not derived from sales of their products-for example, resales of purchased materials, or revenues from parking lots owned by a manufacturing plant.

## Data Collection

PPIs are based on selling prices reported by establishments of all sizes selected by probability sampling, with the probability of selection proportionate to size. Individual items and transaction terms from these firms also are chosen by probability proportionate to size. BLS strongly encourages cooperating companies to supply actual transaction prices at the time of shipment to minimize the use of list prices. Prices submitted by survey respondents are effective on the Tuesday of the week containing the 13th day of the month. This survey is conducted primarily through the mail.

Price data are provided on a voluntary and confidential basis; only sworn BLS employees are allowed access to individual company price reports. BLS publishes price indexes instead of actual prices. All PPIs are subject to revision 4 months after original publication to reflect the availability of late reports and corrections by respondents.

BLS periodically updates the PPI sample of survey respondents to better reflect current conditions when the structure, membership, technology, or product mix of an industry shifts significantly and to spread reporting burden among smaller firms. Results of these resampling efforts are incorporated into the PPI with the release of data for January and July.

As part of an ongoing effort to expand coverage to sectors of the economy other than mining and manufacturing, an increasing number of service sector industries have been introduced into the PPI. The following list of recently introduced industries includes the month and year in which an article describing the industry's content appeared in the PPI Detailed Report.

| Title | Code | PPI Detailed Report Issue |
| :---: | :---: | :---: |
|  | SIC |  |
| Wireless telecommunications | 4812 | July 1999 |
| Telephone communications, except radio telephone | 4813 | July 1995 |
| Television broadcasting | 4833 | July 2002 |
| Grocery stores | 5411 | July 2000 |
| Meat and fish (seafood) markets | 5421 | July 2000 |
| Fruit and vegetable markets | 5431 | July 2000 |
| Candy, nut, and confectionery stores | 5441 | July 2000 |
| Retail bakeries | 5461 | July 2000 |
| Miscellaneous food stores | 5499 | July 2000 |
| New car dealers | 5511 | July 2000 |
| Gasoline service stations | 5541 | January 2002 |
| Boat dealers | 5551 | January 2002 |
| Recreational vehicle dealers | 5561 | January 2002 |
| Miscellaneous retail | 59 | January 2001 |
| Security brokers, dealers, and investment bankers | 6211 | January 2001 |
| Investment advice | 6282 | January 2003 |
| Life insurance carriers | 6311 | January 1999 |
| Property and casualty insurance | 6331 | July 1998 |
| Insurance agencies and brokerages | 6412 | January 2003 |
| Operators and lessors of nonresidential buildings | 6512 | January 1996 |
| Real estate agents and managers | 6531 | January 1996 |
| Prepackaged software | 7372 | January 1998 |
| Data processing services | 7374 | January 2002 |
| Home health care services | 8082 | January 1997 |
| Legal services | 8111 | January 1997 |
| Engineering design, analysis, and consulting services | 8711 | January 1997 |
| Architectural design, analysis, and consulting services | 8712 | January 1997 |
| Premiums for property and casualty insurance | 9331 | July 1998 |
|  | NAICS |  |
| New warehouse building construction | 236221 | July 2005 |
| New school construction | 236222 | July 2006 |
| Merchant wholesalers, durable goods | 423 | July 2005 |
| Merchant wholesalers, nondurable goods | 424 | July 2005 |
| Wholesale trade agents and brokers | 425120 | July 2005 |
| Furniture and home furnishings stores | 442 | January 2004 |
| Electronics and appliance stores | 443 | January 2004 |


| Title | Code | PPI Detailed <br> Report Issue |
| :--- | :---: | ---: |
| Building material and garden equipment and supplies dealers | NAICS |  |
| Clothing and clothing accessories stores | 444 | January 2004 |
| Sporting goods, hobby, book, and music stores | 448 | January 2004 |
| General merchandise stores | 451 | January 2004 |
| Miscellaneous store retailers | 452 | January 2004 |
| Internet service providers | 453 | January 2004 |
| Web search portals | 518111 | July 2005 |
| Commercial banking | 518112 | July 2005 |
| Savings institutions | 522110 | January 2005 |
| Direct health and medical insurance carriers | 522120 | January 2005 |
| Construction, mining, and forestry machinery and equipment rental | 524114 | July 2004 |
| and leasing | 532412 | January 2005 |
| Security guards and patrol services | 561612 | July 2005 |
| Amusement and theme parks | 713110 | July 2006 |
| Golf courses and country clubs | 713910 | July 2006 |
| Fitness and recreational sports centers | 713940 | July 2005 |

## Weights

Weights for most traditional commodity groupings of the PPI, as well as weights for commodity-based aggregate indexes calculated using traditional commodity groupings, such as stage-of-processing indexes, currently reflect 1997 values of shipments as reported in the Census of Manufactures and other sources. From January 1996 through December 2001, PPI weights were derived from 1992 shipment values. Industry indexes also are now calculated with 1997 net output weights. This periodic update of the value weights used to calculate the PPI is done to more accurately reflect changes in production and marketing patterns in the economy. Net output values of shipments are used as weights for industry indexes. Net output values refer to the value of shipments from establishments within the industry to buyers outside the industry. However, weights for commodity price indexes are based on gross shipment values, including values of shipments between establishments within the same industry. As a result, broad commodity grouping indexes, such as the PPI for All Commodities, are affected by the multiple counting of price change at successive stages of processing, which can lead to exaggerated or misleading signals about inflation. Stage-of-processing indexes partially correct for this defect, but industry indexes consistently correct for this at all levels of aggregation. Therefore, industry and stage-of-processing indexes are more appropriate than broad commodity groupings for economic analysis of general price trends.

## Price Index Reference Base

Effective with publication of January 1988 data, many important PPI series (including stage-of-processing groupings and most commodity groups and individual items) were placed on a new reference base, $1982=100$. From 1971 through 1987, the standard reference base for most PPI series was $1967=100$. Except for rounding differences, the shift to the new reference base did not alter any previously published percent changes for affected PPI series. (See "Calculating Index Changes," below.) The 1982 reference base is not used for commodity indexes with a base later than December 1981 or for industry net output indexes and their products.

For further information on the underlying concepts and methodology of the Producer Price Index, see chapter 14, "Producer Prices," in BLS Handbook of Methods (April 1997), Bulletin 2490. This document can be downloaded from the BLS Web site at www.bls.gov/opub/hom/homch14_itc.htm. Reprints are available on request.

## Calculating Index Changes

Each PPI measures price changes from a reference period that equals 100.0. An increase of 5.5 percent from the reference period in the Finished Goods Price Index, for example, is shown as 105.5. This change also can be expressed in dollars, as follows: prices received by domestic producers of a sample of finished goods have risen from $\$ 100$ in 1982 to $\$ 105.50$. Likewise, a current index of 90.0 would indicate that prices received by producers of finished goods are 10 percent lower than they were in 1982.

Movements of price indexes from one month to another are usually expressed as percent changes, rather than as changes in index points. Index point changes are affected by the level of the index in relation to its base period, whereas percent changes are not. The following example shows the computation of index point and percent changes.

## Index point change

| Finished Goods Price Index | 107.5 |
| :--- | ---: |
| Less previous index | 104.0 |
| Equals index point change | 3.5 |

## Index percent change

| Index point change | 3.5 |
| :--- | ---: |
| Divided by the previous index | 104.0 |
| Equals | 0.034 |
| Result multiplied by 100 | $0.034 \times 100$ |
| Equals percent change | 3.4 |

## Seasonally Adjusted and Unadjusted Data

Because price data are used for different purposes by different groups, BLS publishes seasonally adjusted and unadjusted changes each month. Seasonally adjusted data are preferred for analyzing general price trends in the economy because these data eliminate the effect of changes that normally occur at about the same time, and in about the same magnitude, every year-such as price movements resulting from normal weather patterns, regular production and marketing cycles, model changeovers, seasonal discounts, and holidays. For these reasons, seasonally adjusted data more clearly reveal underlying cyclical trends. Unadjusted data are of primary interest to users who need information that can be related to actual dollar values of transactions. Individuals requiring this information include marketing specialists, purchasing agents, budget and cost analysts, contract specialists, and commodity traders. It is the unadjusted data that are generally cited when escalating long-term contracts such as purchasing agreements or real estate leases. For more information, see Escalation and Producer Price Indexes: A Guide for Contracting Parties, BLS Report 807, September 1991, on the Web at www.bls.gov/ppi/ppiescalation.htm. Reprints are available on request.

In 1998, the PPI implemented the X-12-ARIMA Seasonal Adjustment Method; prior to that year, the PPI employed the X-11 method. Each year, the seasonal status of most commodity indexes is reevaluated to reflect more recent price behavior. Industry net output indexes are not seasonally adjusted. For time series that exhibit seasonal pricing patterns, new seasonal factors are estimated and applied to the unadjusted data for the previous 5 years. These updated seasonally adjusted indexes replace the most recent 5 years of seasonal data.

Seasonal factors may be applied to series using either a direct or an aggregative method. Generally, commodity indexes are seasonally adjusted using direct seasonal adjustment, which produces a more complete elimination of seasonal movements than does the aggregative method. However, the direct seasonal adjustment process may not yield figures that possess additive consistency. Thus, a seasonally adjusted index for a broad category that is directly adjusted may notbe logically consistent with all seasonally adjusted indexes for its components. Seasonal movements for stage-of-processing indexes are derived indirectly through an aggregative method that combines movements of a wide variety of subproduct class (six-digit) series.

Seasonally adjusted indexes can become problematic when previously stable and predictable price patterns abruptly change. If the new pattern persists, the seasonal adjustment method will eventually reflect it adequately; if the pattern keeps shifting, however, seasonally adjusted data will become chronically troublesome. This problem occurs relatively infrequently for farm and food-related products, but has more often affected manufactured products such as automobiles and steel.

Since January 1988, the PPI has used Intervention Analysis Seasonal Adjustment methods to enhance the calculation of seasonal factors. With this technique, outlier values that may distort the seasonal pattern are removed from the data prior to applying the standard seasonal factor estimation procedure. For example, a possible economic cause for large price movements for petroleumbased products might have been the Persian Gulf War. In this case, intervention techniques allowed for better estimates of seasonally adjusted data. On the whole, very few series have required intervention. Out of nearly 900 seasonally adjusted series, only 16 were subject to intervention in 1997.

For more information relating to seasonal adjustment methods, see (1) "Appendix A: Seasonal Adjustment Methodology at BLS," in the BLS Handbook of Methods (April 1997), Bulletin 2490 and (2) "Summary of Changes to the PPI's Seasonal Adjustment Methodology" in the January 1995 issue of Producer Price Indexes.

## Producer Price Index Data on the Internet

In 1995, the BLS began posting PPI series, news releases, and technical information to both a World Wide Web (WWW) site and a file transfer protocol (FTP) site. During the years following the introduction of PPI Internet services, use of these sites eclipsed more traditional methods of data dissemination, such as subscriptions to the PPI Detailed Report. There were more than 1.6 million instances of PPI series being downloaded from the Internet during the 12 months ended December 31, 2003.

## Retrieving PPI data from the PPI Web site

PPI data can be obtained from the WWW address (www.bls.gov/ppi). Scrolling down the page to the "Get Detailed PPI Statistics" header reveals the following methods of data retrieval:

- Most Requested Series is a form-based application that allows the user to quickly obtain PPI time series data by selecting from two separate lists (commodity and industry) of the most commonly requested time series, including the All Commodities Index and the stage-of-processing indexes (for example, Finished Goods). Within each list, any one-or all-of the time series shown can be selected. A user can modify the date range and output options after executing the query, using the reformat button above the data output table.
- Create Customized Tables is a form-based query application designed for users unfamiliar with the PPI coding structure. The application guides a user through the PPI classification system by listing index titles and does not require knowledge of commodity or industry codes. Data retrieved are based on a query formulated by selecting data characteristics from lists provided. Two options are available to create customized tables, depending on a user's browser capability. The one-screen option is a JavaScript application that uses a single screen to guide a user through the available time series data. The second option is a multiplescreen, non-Java-based application. Both methods allow a user to browse the PPI coding structure and select multiple series codes. Using the one-screen option, users can modify the date range and output options after executing the query using the reformat button above the data output table.
- Series Report is a form-based application that uses formatted PPI time series identifiers (commodity or industry codes) as input in extracting data according to a specified set of date ranges and output options. This application provides the most efficient path for users who are familiar with the format of PPI time series identifiers. Up to 300 indexes can be extracted at a time.

There are five alphabetic prefixes used to create unique PPI time series identifiers: WP, WD, PC, PD, and ND. Each provides the user access to a different PPI database. Adding either a " $u$ " (not seasonally adjusted) or an "s" (seasonally adjusted) to the end of these prefixes further specifies the type of data needed.

For commodity and stage-of-processing indexes, series identifiers combine a "wpu" prefix (not seasonally adjusted) or a "wps" prefix (seasonally adjusted) with a commodity code.

## Commodity code

wps 141101
wpu141101
wpusop3000

## Provides data for:

Passenger cars, seasonally adjusted
Passenger cars, not seasonally adjusted
Finished goods, not seasonally adjusted

For discontinued commodity indexes, series identifiers combine a "wdu" prefix (not seasonally adjusted) or a "wds" prefix (seasonally adjusted) with a commodity code.

## Commodity code

wds019
wdu0635
wdusi138011

## Provides data for:

Other farm products, seasonally adjusted
Preparations, ethical (prescription), not seasonally adjusted
Stainless steel mill products, not seasonally adjusted

Current price indexes grouped by industry according to NAICS have series identifiers that begin with the prefix "pcu." After the prefix, there are 12 digits (the 6-digit industry code is listed twice) followed by up to 7 alphanumeric characters identifying product detail. Dashes are used as placeholders for higher-level industry group codes.

```
Industry-product code,
current NAICS series
pcu325---325---
pcu336110336110
pcu6211111621111411
pcu325412325412A
```


## Provides data for:

Chemical manufacturing, not seasonally adjusted
Automobile and light duty motor vehicle manufacturing
Offices of physicians, one- and two-physician practices and single-specialty group practices, general/family practice
pcu325412325412A Pharmaceutical preparation manufacturing, pharmaceuticals acting on the respiratory system

Discontinued industry-product codes based on SIC combine a "pdu" prefix and "\#" between the fourth and fifth characters of the product code. Series identifiers for the discontinued dataset use underscores as placeholders to complete a reference to an SIC industry group code of fewer than four digits. (All PPI industry-based indexes organized by SIC were discontinued with the introduction of NAICS.)

```
Industry-product code,
discontinued SIC series
pdu28__#
pdu331_#
pdu3711##111
```


## Provides data for:

Chemicals and allied products, not seasonally adjusted
Blast furnaces, steel works, and rolling and finishing mills, not seasonally adjusted Passenger cars

Price indexes for discontinued series grouped by industry according to NAICS have identifiers that begin with the prefix "ndu." After the prefix, there are 12 numeric digits (the 6-digit industry code is listed twice), and up to 7 additional alphanumeric characters that identify product detail. Dashes are used as placeholders for higher-level industry group codes.

Industry-product code,
discontinued NAICS series
ndu212231212231
ndu2122312122312
ndu212231212231214

## Provides data for:

Lead ore and zinc ore mining
Lead and zinc concentrates
Lead concentrates

- Flat Files and the FTP server are best suited for users requiring access to either a large volume of time series data or other PPI-related documentation (such as seasonal factor and relative importance tables). The FTP site can be accessed at ftp://ftp.bls.gov or directly from the links on the "Get Detailed Statistics" page or the PPI homepage. Data and documentation available for download include the following:


## Directory:

NAICS series, current
NAICS series, discontinued
SIC series, discontinued
Commodity series, current
Commodity series, discontinued
Special requests
Latest news release
The FTP site maintains files to help with searches and downloads. These files are centrally located in the /pub/doc directory. Within this directory, the overview.txt file contains an overview relating to all BLS data available through the FTP site. For current commodity-based PPI data, the program help file is wp.txt; for discontinued commodity series, wd.txt; for current industry-based PPI data based on NAICS, pc.txt; for industry-based SIC time series that have been discontinued, pd.txt; and for industry-based NAICS series that have been discontinued, nd.txt.

Users who prefer downloading PPI datasets as individual ZIP files should go to the directory labeled
/pub/time.series/compressed/tape.format/ on the FTP site. This directory includes six PPI-specific ZIP files, one for each of the PPI databases-WP, WD, PC, ND, and PD—and a ZIP file for the annual 5-year revision to historical seasonal PPIs.

## Other Sources of PPI Data

PPI data can also be accessed via the BLS homepage (www.bls.gov). Clicking on the "Get Detailed Statistics" link at the top of the homepage calls up a chart listing all available BLS programs. The following methods are available for retrieving PPI data: Most requested statistics, create customized tables (one screen or multiple screens), and flat files. Additional sources of BLS data also are accessible from this page, including economic news releases, series report, and economy at a glance.

## Additional information

The PPI homepage (www.bls.gov/ppi) contains additional information regarding PPI data and methodology. The top section of the homepage provides PPI news releases, both current and archived, as well as general PPI information. The "Tables Created by BLS" section found beneath the statistics section provides relative importance and seasonal factor tables. The remaining sections offer special notices and publications pertaining to PPI methodology and applications.

For questions or comments regarding PPI data classification, methodology, or data availability on the Internet, call or e-mail the Section of Index Analysis and Public Information at (202) 691-7705 or ppi-info@bls.gov.

Table 1. Producer price indexes and percent changes by stage of processing
(1982=100)


[^0]5/ Percent of total finished goods.
6/ Percent of total intermediate materials.
7/ Formerly titled "Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds, and leaf tobacco.
8/ Percent of total crude materials.

Table 2. Producer price indexes and percent changes for selected commodity groupings by stage of processing
(1982=100 unless otherwise indicated)


See footnotes at end of table.

Table 2. Producer price indexes and percent changes for selected commodity groupings by stage of processing - continued (1982=100 unless otherwise indicated)


Table 3. Producer price indexes for selected commodity groupings
(1982=100 unless otherwise indicated)


1/ Data for August 2006 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

2/ Prices of some items in this grouping are lagged 1 month.

Table 4. Producer price indexes for the net output of selected industries and industry groups, not seasonally adjusted


See footnotes at end of table.

Table 4. Producer price indexes for the net output of selected industries and industry groups, not seasonally adjusted -- Continued


1/ Indexes in this table are derived from the net-output-weighted industry price indexes. Because of differences in coverage and aggregation methodology, they will generally not match the movements of similarly titled indexes which are derived from traditional commodity groupings.
2/ The indexes for August 2006 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.
3/ Not available.
Note: NAICS 2002 replaced the SIC system beginning with the release of PPI data for January 2004.

Table 5. Producer price indexes by stage of processing, seasonally adjusted
(1982=100)


1/ All seasonally adjusted indexes are subject to change up to 5 years after original publication due to the recalculation of seasonal factors each January. The indexes for August 2006 have been recalculated to incorporate late reports and corrections by respondents.
2/ Includes crude petroleum.
3/ Excludes crude petroleum.


[^0]:    1/ Comprehensive relative importance figures are initially computed after the publication of December indexes and are recalculated after final December indexes are available.
    2/ The indexes for August 2006 have been recalculated to incorporate late reports and corrections by respondents. All indexes
    are subject to revision 4 months after original publication.
    3/ Includes crude petroleum.
    4/ Excludes crude petroleum.

