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## Producer Price Indexes -- August 2003

The Bureau of Labor Statistics of the U.S. Department of Labor reported today that the seasonally adjusted Producer Price Index for Finished Goods advanced 0.4 percent in August. This increase followed a 0.1 -percent gain in July and a 0.5-percent rise in June. At the earlier stages of processing, prices received by manufacturers of intermediate goods increased 0.5 percent, following a 0.2 -percent gain in July. The index for crude materials fell 1.4 percent in August, compared with a 2.9 -percent decline in the prior month. (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.) |  |  |
| 2002 |  |  |  |  |  |  |  |
| Aug. | 0.0 | -0.4 | 1.4 | -0.1 | -1.5 | 0.4 | 1.8 |
| Sept. | . 3 | -. 4 | 1.2 | . 3 | -1.8 | . 5 | 2.2 |
| Oct. | . 8 | . 4 | 3.4 | . 3 | . 7 | . 7 | 2.2 |
| Nov. | -. 3 | . 4 | -1.6 | -. 1 | 1.0 | -. 1 | 3.7 |
| Dec. | -. 3 | . 4 | . 2 | -. 6 | 1.2 | -. 1 | 2.0 |
| 2003 |  |  |  |  |  |  |  |
| Jan. | 1.4 | 1.9 | 4.6 | . 3 | 2.5 | 1.2 | 7.6 |
| Feb. | 1.1 | . 4 | 7.4 | -. 1 | 3.3 | 2.0 | 5.2 |
| Mar. | 1.4 | . 2 | 5.4 | . 7 | 4.0 | 2.1 | 13.0 |
| Apr. | -1.7 | . 8 | r -8.1 | r -. 7 | 2.4 | r -2.3 | r -15.8 |
| May | r - . 4 | r 0 | r -3.0 | r. 2 | 2.5 | r -. 7 | r 1.5 |
| June | . 5 | . 4 | 3.4 | -. 1 | 2.9 | . 5 | 4.5 |
| July | . 1 | -. 2 | . 3 | . 2 | 3.0 | . 2 | -2.9 |
| Aug. | . 4 | . 7 | 1.2 | . 1 | 3.4 | . 5 | -1.4 |

$\mathrm{r}=\mathrm{revised}$. Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for April 2003 have been revised to reflect the availability of late reports and corrections by respondents.

Among finished goods, prices for finished consumer foods climbed 0.7 percent in August, following a 0.2 -percent decline in the previous month. The finished energy goods index moved up 1.2 percent, after rising 0.3 percent in July. By contrast, the index for finished goods other than foods and energy edged up 0.1 percent, after increasing 0.2 percent in the previous month.

Before seasonal adjustment, the Producer Price Index for Finished Goods increased 0.3 percent in August to $143.5(1982=100)$. From August 2002 to August 2003, prices for finished goods moved up 3.4 percent. Over the same period, the finished energy goods index rose 14.2 percent, prices for finished consumer foods advanced 5.0 percent, and the index for finished goods other than foods and energy went up 0.4 percent. Earlier in the pipeline, prices for intermediate goods climbed 4.4 percent and the crude goods index jumped 20.9 percent.

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 <br> ago <br> (unadj.) |
| 2002 |  |  |  |  |  |  |  |  |
| Aug. | 0.7 | 1.5 | 0.2 | -1.0 | 1.7 | 3.2 | -0.4 | -3.8 |
| Sept. | 1.1 | 2.2 | . 1 | -. 6 | 1.3 | 4.6 | -. 2 | 3.1 |
| Oct. | -. 3 | 3.4 | . 2 | 1.6 | . 2 | 5.1 | . 3 | 15.4 |
| Nov. | . 5 | -1.2 | 1 | 2.4 | 1.1 | 7.8 | 1.4 | 13.7 |
| Dec. | 1.0 | -. 5 | -. 1 | 3.2 | 1.3 | 3.3 | . 2 | 24.7 |
| 2003 |  |  |  |  |  |  |  |  |
| Jan. | 1.5 | 5.6 | . 4 | 4.5 | 5.3 | 13.0 | 1.3 | 28.7 |
| Feb. | . 7 | 7.9 | . 7 | 6.6 | . 7 | 9.9 | 3.4 | 36.7 |
| Mar. | -. 3 | 10.2 | . 4 | 8.0 | -1.8 | 30.1 | -. 3 | 46.8 |
| Apr. | . 1 | r-11.0 | r - . 2 | r 4.6 | r 1.2 | r -30.7 | -1.1 | r 18.2 |
| May | 1.0 | r -4.3 | r 0 | 4.2 | r 1.7 | r 2.7 | -1.9 | 19.1 |
| June | 1.9 | 2.0 | 0 | 4.5 | -. 5 | 10.7 | . 6 | 29.4 |
| July | -. 4 | 1.3 | -. 1 | 4.4 | -3.0 | -4.4 | . 8 | 24.5 |
| Aug. | . 2 | 2.4 | . 1 | 4.4 | 3.7 | -7.4 | 3.7 | 20.9 |

$\mathrm{r}=$ revised. Some of the figures shown above and elsewhere in this release may differ from those previously reported because data for April 2003 have been revised to reflect the availability of late reports and corrections by respondents.

## Finished goods

Prices for finished consumer foods increased 0.7 percent in August, after posting a 0.2 -percent decline in the prior month. Leading this turnaround, the index for beef and veal moved up 3.8 percent, following a 5.6percent drop in July. Prices for fresh and dry vegetables and for finfish and shellfish also turned up in August, after falling a month earlier. The fresh fruits and melons index advanced at a faster rate than it did in the previous month, and pork prices fell less in August than they did in the prior month. Alternatively, the rate of increase for the dairy products index slowed from 3.4 percent in July to 2.4 percent in August. The index for eggs for fresh use also rose less than it did in July. Prices for processed young chickens and for processed fruits and vegetables turned down, following increases in the preceding month. The soft drinks index fell, after showing no change a month earlier.

Prices for finished energy goods rose 1.2 percent in August, compared with a 0.3 -percent gain in the previous month. The majority of this acceleration was due to prices for gasoline, which increased 6.3 percent in August after rising 3.6 percent in July. Prices for residential electric power and kerosene turned up, following decreases in the prior month. The liquefied petroleum gas index fell less than it did a month earlier. On the other hand, residential natural gas prices declined 1.5 percent in August, after showing no change in the preceding month. The indexes for home heating oil and diesel fuel rose at a slower pace than they did in July.

The index for capital equipment inched up 0.1 percent, following a 0.4 -percent gain a month earlier. In August, rising prices for civilian aircraft, light motor trucks, passenger cars, pumps and compressors, and commercial furniture slightly outweighed falling prices for communications and related equipment, electronic computers, railroad equipment, agricultural machinery and equipment, x-ray and electromedical equipment, and heavy motor trucks.

The index for finished consumer goods other than foods and energy moved up 0.1 percent in August, after rising at the same rate in the previous month. In August, increasing prices for light motor trucks, passenger cars, pharmaceutical preparations, men's and boys' apparel, textile housefurnishings, and mobile homes prevailed over decreasing prices for lawn and garden equipment (except tractors), alcoholic beverages, household appliances, pet food, and periodical circulation.

## Intermediate goods

The Producer Price Index for Intermediate Materials, Supplies, and Components climbed 0.5 percent in August, after registering a 0.2-percent gain in July. Prices for materials for nondurable manufacturing, materials for durable manufacturing, and intermediate foods and feeds advanced in August, following declines in the preceding month. The index for intermediate energy goods rose at a quicker pace in August than it did a month earlier. On the other hand, the index for materials and components for construction increased less in August than it did in the previous month. Excluding foods and energy, prices for intermediate goods edged up 0.1 percent in August, following a 0.1-percent dip in July. (See table B.)

The index for materials for nondurable manufacturing jumped 1.1 percent in August, compared with a 0.3-percent decrease in the prior month. Much of this upturn can be traced to prices for primary basic organic chemicals, which climbed 7.9 percent after falling 4.4 percent in July. The indexes for fertilizer materials, finished fabrics, processed yarns and threads, synthetic fibers, intermediate basic organic chemicals, and medicinal and botanical chemicals also turned up in August. Prices for plastic resins and materials fell less than they did a month earlier. The paperboard index was unchanged, after declining in July. By contrast, prices for basic inorganic chemicals decreased 0.3 percent in August, following a 1.1-percent gain a month earlier. The index for paper turned down, after showing no change in July, while leather prices remained unchanged in August following a July increase.

Prices for intermediate energy goods rose at a faster pace in August than they did in the previous month -- up 2.4 percent after a 1.3-percent gain in July. The index for natural gas to electric utilities jumped 7.8 percent, compared with a 4.3-percent drop in the preceding month. Prices for industrial natural gas, jet fuels, and finished lubricants also turned up in August. The index for commercial electric power moved up, after showing no change in July. Gasoline prices climbed at a quicker pace in August than they did a month earlier, while the index for liquefied petroleum gas fell at a slower rate than it did in July. On the other hand, prices for residual fuels advanced 5.3 percent in August, following a 44.6-percent surge in the previous month. The index for industrial electric power also rose less than it did in the prior month. Subsequent to a 0.8 -percent gain in July, prices for commercial natural gas were unchanged in August.

The index for materials for durable manufacturing increased 0.6 percent in August, after declining 0.2 percent in July. Prices for steel mill products climbed 0.6 percent, following a 1.3-percent drop a month earlier. The indexes for primary aluminum (except extrusion billet), refined gold, and unprocessed filament yarns also turned up in August. Prices for aluminum mill shapes fell less than they did in July. By contrast, the index for building paper and board rose at a slower rate in August than it did in the previous month -- 3.0 percent and 12.5 percent, respectively. Prices for plywood, prepared paint, hardwood lumber, and for copper and brass mill shapes also went up less than they did in the prior month. The index for copper cathode and refined copper turned down in August.

Prices for intermediate foods and feeds moved up 0.2 percent in August, after decreasing 0.4 percent in July. The index for beef and veal jumped 3.8 percent, following a 5.6 -percent drop in the preceding month. Prices for crude vegetable oils, shortening and cooking oils, flour, and portion-controlled meat products also advanced in August, after declining a month earlier. On the other hand, prices for prepared animal feeds went down 2.3 percent in August, compared with a 0.5 -percent gain in the prior month. The index for processed young chickens also fell, after rising in July. Prices for natural, processed, and imitation cheese climbed less in August than they did in the previous month.

Prices for materials and components for construction moved up at a 0.1 -percent rate in August, following a 0.3 -percent gain in July. The softwood lumber index advanced 0.4 percent, after rising 4.6 percent in the prior month. Price increases for plywood, millwork, treated wood, and hardwood lumber also slowed in August. The indexes for gypsum products and for prefabricated wood buildings and components turned down, after advancing in July. On the other hand, prices for plastic construction products fell 0.2 percent in August, compared with a 1.5 -percent drop a month earlier. The indexes for steel mill products, paving mixtures and blocks, fabricated structural metal products, and nonferrous wire and cable turned up, following declines in the previous month.

## Crude goods

The Producer Price Index for Crude Materials for Further Processing fell 1.4 percent in August, after dropping 2.9 percent in July. Prices for crude foodstuffs and feedstuffs increased, after posting a decline one month earlier. The index for basic industrial materials rose more in August than it did in July. Conversely, prices for crude energy materials declined more rapidly in August than in the prior month. (See table B.)

The index for crude foodstuffs and feedstuffs advanced 3.7 percent in August, after falling 3.0 percent in July. Slaughter cattle prices led the reversal with a 6.1 -percent increase, following a 3.0-percent decrease the prior month. The indexes for wheat and slaughter hogs also rebounded, after dropping in July, and corn prices fell at a slower rate in August then they did in the preceding month. Conversely, prices for slaughter broilers and fryers climbed only 2.4 percent, after advancing 5.0 percent in July. The slaughter turkey index fell more in August than it did in the prior month.

Prices for crude nonfood materials other than energy rose 3.7 percent in August, after increasing 0.8 percent in the prior month. The index for iron and steel scrap grew 8.8 percent, following a 3.1 -percent jump in July. Prices for nonferrous metal ores and wastepaper turned up, compared with decreases in the previous month. By contrast, prices for raw cotton fell 7.7 percent, after rising 10.2 percent a month earlier. The index for iron ore increased at a slower rate in August than it did in July.

The August index for crude energy materials continued to fall, dropping 7.4 percent after a 4.4-percent decline in July. This faster rate of decrease was due to natural gas prices, which dropped 13.1 percent after sliding 6.2 percent in the preceding month. By contrast, the index for crude petroleum advanced by 1.5 percent, compared with a 0.7 -percent decline in July. Coal also turned up, climbing 1.3 percent following a 3.0-percent fall the prior month.

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

Mining. The Producer Price Index for the Net Output of Total Mining Industries fell 6.0 percent in August, after declining 3.7 percent in July. (Net output price indexes are not seasonally adjusted.) Prices received by the natural gas liquids and natural gas residue industry moved down 10.7 percent, following a 5.1-percent drop in the preceding month. The index for the crude petroleum and natural gas industry also fell more in August than it did in July. Prices received by the industries for coal mining services and for chemical and fertilizer mineral mining turned down, after rising a month earlier. On the other hand, the industry index for oil and gas field services advanced 2.2 percent, after edging down 0.1 percent in July. Prices received by the industries for bituminous coal and lignite surface mining and for gold ores also turned up in August, following declines in the previous month. In August, the Producer Price Index for the Net Output of Total Mining Industries was 125.2 (December $1984=100$ ), 30.6 percent above its year-ago level.

Manufacturing. The Producer Price Index for the Net Output of Total Manufacturing Industries rose 0.4 percent in August, slightly more than the 0.2-percent increase observed in July. Leading this acceleration, the index for the petroleum refining and related products industry group advanced 5.0 percent, following a 2.3percent gain in the prior month. Prices received by the industry groups for food and kindred products, transportation equipment, and primary metals turned up in August, after falling a month earlier. Conversely, the industry group index for electrical and electronic machinery, equipment, and supplies turned down 1.2 percent, following a 0.1-percent increase in July. Prices for the lumber and wood products (except furniture) industry group rose less than they did in the previous month. In August, the Producer Price Index for the Net Output of Total Manufacturing Industries was 137.0 (December $1984=100$ ), 2.5 percent above its year-ago level.

Services. Among service industries, prices received by the industries for property and casualty insurance, telephone communications (except radiotelephone), non-local trucking, offices of physicians, general medical and surgical hospitals, prepackaged software, and help supply services increased in August. Alternatively, the industry indexes for operators and lessors of nonresidential buildings, scheduled air transportation, real estates agents and managers, travel agencies, and wireless communications fell in August.
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Producer Price Index data for September 2003 will be released on Friday, October 10, 2003, at 8:30 a.m. (EDT).

## NAICS Conversion

The net output price indexes will be converted from the 1987 Standard Industrial Classification (SIC) basis to the 2002 North American Industry Classification System (NAICS) basis with the February 2004 release of January 2004 indexes. The NAICS conversion involves major definitional changes to many of the currently published SIC-based indexes. After the conversion to NAICS, SIC-based indexes will no longer be produced or published. Historical index data based on the NAICS publication structure will be available depending on the scope of the definitional changes between SIC and NAICS.

For more information contact the Division of Industrial Prices and Price Indexes, Section of Index Analysis and Public Information at ppi-info@bls.gov or (202) 691-7705.

## Technical Note

## Brief Explanation of Producer Price Indexes

The term Producer Price Index (PPI) refers to a family of indexes that measure the average change over time in the selling 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 may differ due to government subsidies, sales and excise taxes, and distribution costs.

More than 10,000 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 transportation, utilities, trade, finance, and services sectors of the economy.

More than 100,000 price quotations per month are organized into three sets of producer price indexes: (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 (tables 1, 2, and 5) organizes products by class of buyer and degree of fabrication. The commodity structure (tables 2 and 3 ) 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 (table 4).

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; and nondurable goods such as apparel and home heating oil. Capital equipment includes producer 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.

Producer price indexes for the net output of industries and their products are grouped according to the Standard Industrial Classification (SIC). Industry price indexes are compatible with other economic time series organized by SIC codes, such as data on employment, wages, and productivity. Table 4 lists indexes for the net output of major mining and manufacturing industry groups at the 2-digit level.

Producer price indexes 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 are also 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 are normally reported by mail questionnaire for the Tuesday of the week containing the 13th.

Price data are provided on a voluntary and confidential basis; no one but sworn BLS employees are allowed access to individual company price reports. The Bureau publishes price indexes instead of unit dollar prices. All producer price indexes are routinely subject to revision once, 4 months after original publication, to reflect the availability of late reports and corrections by respondents.

The 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 every 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 service industries includes the month in which an article describing the industry's content appeared in the PPI Detailed Report:

| Industry | SIC | PPI Detailed Report Issue |
| :---: | :---: | :---: |
| 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 Dealer | 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 |

Weights for most traditional commodity groupings of the PPI, as well as all indexes (such as stage-ofprocessing indexes) calculated from traditional commodity groupings, currently reflect 1992 values of shipments as reported in the Census of Manufactures and other sources. From January 1992 through December 1995, PPI weights were derived from 1987 shipment values. Industry indexes shown in table 4 are also now calculated with 1992 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 in one industry to establishments classified in another industry. However, weights for commodity price indexes are based on gross shipment values, including shipment values between establishments within the same industry. As a result, broad commodity grouping indexes such as the all commodities index 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 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.

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 changes to previously published percent changes for affected PPI series. (See "Calculating Index Changes," below.) The new reference base is not used for indexes with a base later than December 1981, nor for indexes for the net output of industries 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. Reprints are available from the Bureau of Labor Statistics on request.

## Calculating Index Changes

Each index measures price changes from a reference period which equals 100.0 (1982 or some later month). 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 can also be expressed in dollars as follows: "Prices received by domestic producers of a systematic sample of finished goods have risen from $\$ 100$ in 1982 to $\$ 105.50$ today." Likewise, a current index of 90.0 would indicate that prices received by producers of finished goods today 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 because index point changes are affected by the level of the index in relation to its base period, whereas percent changes are not. The example below 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 |  |
|  | 3.5 |
| Index point change | 104.0 |
| Divided by the previous index | 0.034 |
| Equals | $0.034 \times 100$ |
| Result multiplied by 100 | 3.4 |

## Seasonally Adjusted and Unadjusted Data

Because price data are used for different purposes by different groups, the Bureau of Labor Statistics publishes seasonally adjusted and unadjusted changes each month. Seasonally adjusted data are preferred for analyzing general price trends in the economy because they 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 in escalating long-term contracts such as purchasing agreements or real estate leases. (See Escalation and Producer Price Indexes: A Guide for Contracting Parties, BLS Report 807, September 1991, available on request from BLS.)

For more information, 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.

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


[^0]4/ Excludes crude petroleum.
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)

| Commodity code | Grouping | Unadjusted index |  |  | \| Unadjusted\| percent\| Change to\| Aug. 2003 from: |  | Seasonally adjusted percent change from: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | \| July | $\begin{aligned} & \mid \\ & \mid \text { Aug. } \\ & \mid 2003 \\ & 1 / \mid \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 2002 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2003 \end{aligned}$ | May tolJune tol ${ }^{\text {I }}$ Iuly to |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | June | July | Aug. |
|  | \|FINISHED Goods | 142.1 | 143.0 | 143.5 |  |  |  |  |  |
|  | \| FINISHED CONSUMER GOODS .................... |  |  |  |  |  |  |  |  |
|  |  |  | 145.0 |  | 4.4 | . 5 |  |  |  |
|  | \| FINISHED CONSUMER FOODS. | 144.0 | 145.0 | 146.2 | 5.0 | . 8 | . 4 | -. 2 | . 7 |
| 01-11 | Fresh fruits and melons $2 / \ldots \ldots . . . . . . . . . . . . . . .$. | 75.9 | 78.7 | 84.3 | -8.5 | 7.1 | -11.9 | . 6 | 7.1 |
| 01-13 |  | 150.0 | 120.4 | 125.6 | -1.1 | 4.3 | -14.1 | -4.1 | 4.3 |
| 01-71-07 | Fresh and dry vegetables $2 / \ldots \ldots \ldots$ Eggs for fresh use (Dec. 1991=100) | 99.6 | 97.9 | 114.4 | 32.4 | 16.9 | . 8 | 8.2 | 3.2 |
| 02-11 | Bakery products $2 / \ldots \ldots . . . . . . . . . .$. | 195.1 | 195.3 | 195.1 | 2.9 | -. 1 | -. 3 | . 2 | -. 1 |
| 02-13 \| | Milled rice $2 / . . . . .$. | 91.7 | 101.1 | 105.9 | 37.7 | 4.7 | -. 2 | 2.2 | 4.7 |
| 02-14-02 \| |  | 126.5 | 126.5 | 126.5 | 4.2 | 0 | -. 1 | 0 | - |
| 02-21-01 | Beef and veal $2 / . . . . . . . . . . . . .$. | 127.3 | 130.6 | 135.6 | 21.6 | 3.8 | 6.7 | -5.6 | 3.8 |
| 02-21-04 | Pork.. | 112.2 | 123.1 | 117.7 | 8.2 | -4.4 | 7.8 | -4.0 | -3.7 |
| 02-22-03 | Processed young chickens | 114.6 | 122.0 | 123.1 | 13.6 | . 9 | . 9 | 2.1 | -. 3 |
| 02-22-06 | Processed turkeys. | 89.2 | 90.0 | 89.7 | -6.6 | -. 3 | -2.6 | 1.0 | -. 7 |
| 02-23 | Finfish and shellfish | 214.5 | 192.7 | 194.3 | 2.7 | . 8 | -1.5 | -2.1 |  |
| 02-3 | Dairy products. | 133.6 | 139.3 | 143.6 | 6.9 | 3.1 | -1.1 | 3.4 | 2.4 |
| 02-4 | Processed fruits and vegetables 21 | 133.8 | 133.5 | 133.0 | . 4 | -. 4 | -. 1 | . 2 | -. 4 |
| 02-55 | Confectionery end products 21 | 182.7 | 184.0 | 184.0 | 4.1 | 0 | -. 2 | . 5 | 0 |
| 02-62 | Soft drinks. | 152.8 | 152.6 | 152.2 | . | -. 3 | . 7 | 0 | -. 3 |
| 02-63-01 | Roasted coffee 2/... | 127.6 | 127.7 | 127.8 | 5.1 | . 1 | 4.6 | -. 1 | . 1 |
| 02-78 |  | 154.7 | 158.7 | 159.5 | 11.2 | . 5 | 1.2 | -. 3 | . 5 |
|  | FINISHED CONSUMER Goods excluding foods. | 143.5 | 144.7 | 145.1 | 4.2 | . 3 | . 9 | . 1 | . 5 |
| 02-61 |  | 149.3 | 149.0 | 148.6 | 1.3 | -. 3 | . 1 | . 1 | -. 2 |
| 03-81-01 | Women's apparel $2 / \ldots \ldots \ldots$.Men's and boys' apparel $2 /$ | 124.4 | 122.2 | 122.3 | 0 | . 1 | -. 2 |  | . 1 |
| 03-81-02 |  | 127.5 | 126.4 | 126.9 | -1.2 | . 4 | . 2 | -. 2 | 4 |
| 03-81-03 | Girls', children's, and infants' apparel | 119.3 | 120.0 | 120.6 | 1.0 | . 5 | . 6 |  | 5 |
| 03-82 | Textile housefurnishings $2 /$. | 122.4 | 121.4 | 122.1 | -. 2 | . 6 | 0 | -. 6 | 6 |
| 04-3 | Footwear $21 \ldots \ldots .$. .................... | 147.3 | 147.6 | 147.6 | 1.2 | 0 | -. 1 | . 1 | 0 |
| 05-41 |  | 115.7 | 123.3 | 123.8 | 3.8 | . 4 | 1.1 | -. 3 | . 5 |
| 05-51 | Residential gas (Dec. 1990=100) | 167.6 | 172.7 | 168.1 | 28.9 | -2.7 | 3.6 |  | -1.5 |
| 05-71 | Gasoline <br> Fuel oil No. 2. | 100.1 | 101.1 | 106.4 | 20.8 | 5.2 | 7.6 | 3.6 | 6.3 |
| 05-73-02-01\| |  | 93.8 | 87.3 | 91.6 | 21.5 | 4.9 | 9.0 | 1.7 | 1.6 |
| 06-38 \| | Fuel oil No. 2............................................... <br> Pharmaceutical preparations (June 2001=100) 2/ | 106.3 | 107.5 | 107.8 | 4.8 | . 3 | . 7 | . 6 | . 3 |
| 06-71 | Soaps and synthetic detergents $2 / \ldots \ldots \ldots \ldots$ | 129.6 | 130.1 | 130.1 | 0 | 0 | . 1 | . 5 |  |
| 06-75 \| | \| Cosmetics and other toilet preparations $2 / \ldots$. <br> Tires, tubes, tread, etc $2 / . . . . .$. | 140.6 | 140.4 | 140.4 | . 6 |  | -. 1 | . 1 | 0 |
| 07-12 \| |  | 97.5 | 98.1 | 98.0 | 2.8 | -. 1 | -. 1 | . 6 | -. 1 |
| 09-15-01 \| | Sanitary papers and health productsNewspaper circulation $2 / \ldots \ldots .$. . | 150.4 | 149.9 | 150.2 | . 3 | . 2 | -. 2 | -. 2 | 2 |
| 09-31-01 |  | 229.9 | 230.0 | 229.9 | 1.7 | 0 | -. 9 |  |  |
| 09-32-01 | Periodical circulationBook publishing...... | 220.2 | 220.7 | 220.7 | 4.3 | 0 | . 4 | . 3 | -. 3 |
| 09-33 |  | 241.6 | 243.8 | 244.8 | 3.5 | . 4 | 0 | . 6 |  |
| 12-1 \| |  | 158.2 | 158.3 | 158.2 | . 6 | -. 1 | 0 | . 1 | . 1 |
| 12-3 | Floor coverings 2/....................................... Household appliances $2 /$ | 132.4 | 134.9 | 134.7 | 2.9 | -. 1 | 1.9 | . 6 | -. 1 |
| 12-4 \| |  | 102.6 | 102.1 | 101.8 | -2.6 | -. 3 | -. 4 | -. 2 | -. 3 |
| 12-5 \| | Home electronic equipment $2 / . . . .$. <br> Household glassware. | 68.0 | 67.0 | 67.0 | -3.0 | 0 | -. 4 | -. 9 | 0 |
| 12-62 \| |  | 169.2 | 169.0 | 169.1 | -. 4 | . 1 | -. 1 | . 1 | . 1 |
| 12-64 | Household glassware. $\qquad$ <br> Household flatware $2 /$. | 145.2 | 145.2 | 145.2 | . 1 | 0 |  |  |  |
| 12-66 | Household flatware $2 / \ldots .$. Lawn and garden equip., | 133.4 | 134.0 | 132.0 | -1.5 | -1.5 | -. 1 | . 5 | -1.5 |
| 14-11-01 | Passenger cars. | 129.4 | 126.5 | 126.3 | . 8 | -. 2 | -. 7 | . 4 |  |
| 15-11 \| | Toys, games, and children's velSporting and athletic goods $2 /$ | 124.9 | 125.0 | 125.0 | . 1 | 0 | 0 | 0 | 0 |
| 15-12 \| |  | 125.3 | 124.6 | 124.1 | -. 8 | -. 4 | -. 2 | -. 6 | -. 4 |
| 15-2 \| |  | 428.7 | 429.6 | 429.7 | -7.9 | 0 | -. 1 | 0 | 0 |
| 15-5 \| |  | 168.2 | 169.2 | 169.7 | 1.6 | . 3 | . 1 | . 2 |  |
| 15-94-02 \| | Mobile homes $2 /$ Jewelry, platinum, \& karat gold 2/ Costume jewelry and novelties $2 /$ | 131.4 | 131.5 | 131.6 | 1.3 | . 1 | . 3 | -. 3 | . 1 |
| 15-94-04 |  | \| 144.8 | 144.3 | 144.8 | . 3 | . 3 | 0 | 0 | 3 |
|  | CAPITAL EOUIPMENT | 139.1 | 139.3 | 139.3 | . 8 | 0 | -. 1 | . 4 | . 1 |
| 11-1 | Agricultural machinery and equipment | 160.2 | 160.6 | 160.1 | . 9 | -. 3 | . 1 | . 1 | -. 3 |
| 11-2 | Construction machinery and equipment. | 153.3 | 153.6 | 153.6 | 1.5 | , | . 1 | . 1 | . 1 |
| 11-37 | Metal cutting machine tools $2 /$... | 150.8 | 150.4 | 150.5 | -2.0 | . 1 | -. 1 | . 1 | . 1 |
| 11-38 | Metal forming machine tools 2/.. | 167.3 | 167.7 | 167.7 | . 2 | 0 | 0 | . 2 | 0 |
| 11-39 | Tools, dies, jigs, fixtures, and ind. molds | 139.3 | 139.2 | 139.2 | -1.0 | 0 | -. 1 | . 4 | 0 |
| 11-41 | Pumps, compressors, and equipment.. | 162.9 | 163.1 | 163.7 | 1.4 | . 4 | . 2 | -. 1 | . 4 |
| 11-44 | Industrial material handling equipment | 137.6 | 138.3 | 138.2 |  | -. 1 | . 3 | . 2 | -. 1 |
| 11-51 | Electronic computers (Dec. 1998=100) $2 /$. | 35.1 | 33.9 | 33.4 | -18.3 | -1.5 | -1.1 | -1.7 | -1.5 |
| 11-62 | Textile machinery $2 /$. | 157.0 | 157.9 | 157.9 | . 8 | 0 | . 6 |  |  |
| 11-64 \| | Paper industries machinery (June 1982=100) | 170.3 | 170.3 | 170.3 | . 5 | 0 | -. 2 | -. 2 | . 1 |
| 11-65 | Printing trades machinery $2 / \ldots \ldots .$. | 142.4 | 143.6 | 143.2 | -. 6 | -. 3 | 1.7 | -. 7 | -. 3 |
| 11-74 \| | Transformers and power regulators $2 /$. | 131.7 | 132.3 | 132.3 | . 7 | 0 | -. 8 | . 7 | 0 |
| 11-76 | Communication \& related equip. ( Dec. 1985=100) | 106.2 | 106.5 | 105.5 | -1.5 | -. 9 | -. 7 | . 4 | -. 9 |
| 11-79-05 \| | $x$-ray and electromedical equipment $2 / . .$. | 100.1 | 100.8 | 100.5 | -. 5 | -. 3 | -. 3 | -. 8 | -. 3 |
| 11-91 \| | Oil field and gas field machinery .. | 139.3 | 140.2 | 140.2 | 3.2 | 0 | . 2 | . 3 | . 2 |
| 11-92 \| | Mining machinery and equipment $2 / . .$. | 154.7 | 154.7 | 154.7 | 1.8 | 0 | -. 4 |  | 0 |
| 11-93 | Office and store machines and equipment 2 | 111.7 | 114.1 | 114.2 | 1.8 | . 1 | -. 5 | 1.8 | . 1 |
| 12-2 \| | Commercial furniture 2/... | 162.2 | 162.5 | 162.6 | . 9 | . 1 | . 1 | -. 1 | . 1 |
| 14-11-05 | Light motor trucks.. | 147.5 | 144.5 | 145.6 | 1.3 | . 8 | -1.5 | . 5 | . 8 |
| 14-11-06 \| | Heavy motor trucks $2 / .$. | 155.3 | 154.4 | 154.3 | 1.0 | -. 1 | -. 1 | . 1 | -. 1 |
| 14-14 | Truck trailers $2 / .$. | 139.6 | 139.4 | 139.5 | . 5 | . 1 | 0 | -. 1 | . 1 |
| 14-21-02 \| | Civilian aircraft ( Dec. $1985=100$ ) | 176.4 | 181.4 | 183.8 | 7.0 | 1.3 | 1.1 | 1.3 | 1.3 |
| $14-31$$14-4$ | Ships (Dec. 1985=100) 2/.. | 158.2 | 158.2 | 158.2 | 4.5 | 0 | 0 | 0 | 0 |
|  | Railroad equipment $2 /$... | 136.0 | 137.8 | 136.5 | 1.1 | -. 9 | . 1 | 1.0 | -. 9 |
|  | IINTERMEDIATE MATERIALS, SUPPLIES, AND COMPONENTS........ |  |  |  |  |  |  |  |  |
|  |  | \| 133.0 | 133.7 | 134.0 | 4.4 | . 2 | . 5 | . 2 | 5 |
|  | intermediate foods and feeds.................... | 121.2 | 124.8 | 125.1 | 7.1 | . 2 | 1.9 | -. 4 | . 2 |
| 02-12-03 \| | Flour 2/........ | 123.3 | 123.2 | 124.6 | 5.3 | 1.1 | -. 6 | -1.1 | 1.1 |
| 02-53 \| | Refined sugar and byproducts $2 /$ | 122.4 | 122.9 | 123.2 | 4.5 | . 2 | 8 | -. 2 | . 2 |
| 02-54 | Confectionery materials $2 /$. | 126.3 | 124.6 | 124.1 | 5.3 | -. 4 | -. 4 | . 2 | -. 4 |
| $02-72$$02-9$ | \| Crude vegetable oils 2/...... | 110.4 | 137.8 | 142.7 | 46.8 | 3.6 | 23.7 | -1.2 | 3.6 |
|  | Prepared animal feeds $2 /$ | \| 109.0 | 111.4 | 108.8 | -. 3 | -2.3 | 1 | . 5 | -2.3 |
|  |  | \| 133.7 | 134.2 | 134.6 | 4.3 | . 3 | . 5 | . 1 | . 6 |
| 03-1 ! | INTERMEDIATE MATERIALS LESS FOODS AND FEEDS............. | \| 106.4 |  | 106.9 | . 5 | . 2 | . 2 | -. 2 |  |
| 03-2 | Processed yarns and threads $2 /$ | 103.6 | 103.3 | 103.7 | 1.1 | . 4 | .2 -.2 | -. 2 | . 4 |
| 03-3 \| | Gray fabrics $2 / . .$. | 110.8 | 111.1 | 110.6 | -1.8 | -. 5 | . 7 | -. 4 | -. 5 |
| 03-4 \| | Finished fabrics. | 119.8 | 120.6 | 121.2 | . 6 | . 5 | . 4 | -. 5 | . 7 |
| 03-83-03 | Industrial textile products $2 /$. | 130.7 | 131.1 | 130.7 | -1.5 | -. 3 | . 6 | -. 2 | -. 3 |
| 04-2 | Leather $2 /$. | 214.7 | 211.9 | 211.8 | 1.4 | 0 | -1.7 | 1.1 | 0 |
| 05-32 \| | \| Liquefied petroleum gas 2/ | \| 141.4 | 142.9 | 142.8 | 33.3 | -. 1 | 6.6 | -4.7 | -. 1 |

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]Table 4. Producer price indexes for the net output of major industry groups, not seasonally adjusted

$\overline{1 /}$ 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 movements of similarly titled indexes derived from traditional commodity groupings.
2/ The indexes for April 2003 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 replaces the SIC classification system beginning with the release of PPI data for January 2004. See http://www.bls.gov/ppi/ppinaics.htm for details.

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 April 2003 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 April 2003 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.

[^1]:    1/ Data for April 2003 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.
    3/ Not available.

