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THURSDAY,
FEBRUARY 18, 1999

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\text { Producer Price Indexes -- January } 1999
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The Producer Price Index for Finished Goods advanced 0.5 percent in January, seasonally adjusted, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. This increase followed a 0.4-percent advance in December and a 0.2-percent decline in November. Prices received by producers of intermediate goods increased 0.1 percent, following a $0.5-$ percent decline in the prior month. The crude goods index rose 2.6 percent, after registering a 4.0 -percent drop a month earlier. (See table A.)

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

> Finish
> ed
> goods

| Except | finished <br> goods | Inter- |
| :---: | :---: | :---: |
| foods | from 12 <br> and <br> months | mediateCrude |
| energy | ago | goods goods |

Month Total Foods Energy energy
1998
Jan.
Feb.
Mar.

| -0.6 | -0.3 | -3.7 | 0.0 | -1.7 | -0.7 | -5.6 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| -.1 | .3 | -1.4 | .1 | -1.5 | -.2 | -1.9 |
| 0 | -.2 | -2.2 | .5 | -1.5 | -.3 | -1.4 |


| Apr. | .2 | .4 | -.4 | .1 | -.9 | 0 | 1.3 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| May | -.1 | -.5 | .4 | .1 | -.8 | -.1 | -.6 |
| June | -.2 | -.1 | -.8 | -.1 | -.7 | -.3 | -2.7 |
| July | .2 | .5 | -.1 | .2 | -.2 | 0 | .1 |
| Aug. | -.3 | -.3 | -1.9 | 0 | -.8 | -.3 | -4.2 |
| Sept. | .2 | .2 | -.4 | .3 | -.9 | -.3 | -1.8 |
| Oct. | .2 | .4 | 1.1 | 0 | -.7 | -.2 | 2.4 |
| Nov. | -.2 | -.4 | -1.5 | .1 | -.7 | -.2 | -.7 |
| Dec. | .4 | 0 | -2.3 | 1.0 | -.1 | -.5 | -4.0 |
|  |  |  |  |  |  |  |  |
| 1999 |  |  |  |  |  |  |  |

NOTE: Some percent changes shown here and elsewhere in this release
may differ from those previously reported because seasonal adjustment factors have been recalculated to reflect developments during 1998. In addition, indexes for September 1998 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

Among finished goods, rising prices for finished consumer foods and finished energy goods outweighed falling prices for finished consumer goods other than foods and energy and capital equipment. The index for finished goods excluding foods and energy fell 0.1 percent in January, after posting a 1.0-percent rise in December

Before seasonal adjustment, the Producer Price Index for Finished Goods advanced 0.4 percent to stand at 131.5 (1982=100). From January 1998 to January 1999, the finished goods price index increased 0.9 percent. Over the same period, prices for finished consumer foods rose 1.9 percent, the index for finished energy goods fell 7.5 percent, and prices for finished goods other than foods and energy advanced 2.3 percent. Prices received by domestic producers of intermediate goods declined 2.4 percent for the 12 months ended in January, and the index for crude goods fell 10.6 percent during the same period.

Finished goods
The index for finished consumer foods advanced 1.6 percent in January, after showing no change in December. Prices for pork increased 18.3 percent, following a 4.5-percent decrease in the previous month. The index for citrus fruit advanced 64.0 percent, after moving up 13.6 percent in the prior month. Prices for dairy products rose more than a month ago. The indexes for beef and veal, finfish and shellfish, and eggs for fresh use turned up, after decreasing a month earlier. By contrast, the index for fresh and dry vegetables declined 9.8 percent, following a 10.8 -percent
advance in the prior month. Prices for soft drinks and for shortening and cooking oils fell, after rising last month.

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


Month Foods Energy energy (unadj.) Foods (unadj energy (unadj.)

| 1998 |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Jan. | -3.4 | -3.0 | -0.1 | -1.7 | -3.0 | -11.2 | -1.7 | -19.5 |
| Feb. | -.3 | -1.3 | -.1 | -1.8 | -.7 | -4.3 | -.2 | -13.8 |
| Mar. | -1.3 | -2.0 | 0 | -1.8 | -.3 | -2.9 | -1.4 | -7.6 |
| Apr. | -.9 | .2 | 0 | -1.6 | .3 | 4.5 | -1.2 | -7.0 |
| May | .3 | .2 | -.1 | -1.5 | -1.5 | 0 | .1 | -9.0 |
| June | -.6 | -1.1 | -.1 | -1.8 | .4 | -8.0 | -.4 | -8.9 |
| July | .4 | 0 | -.1 | -1.6 | -3.4 | 6.0 | -1.5 | -8.4 |
| Aug. | -.4 | -1.5 | -.1 | -2.1 | -1.1 | -9.0 | -2.8 | -12.3 |
| Sept. | -.9 | -.5 | -.3 | -2.5 | -.9 | -3.6 | -1.2 | -15.1 |
| Oct. | -.4 | .8 | -.2 | -2.5 | 2.9 | 5.1 | -2.7 | -16.7 |
| Nov. | .5 | -1.0 | -.2 | -2.9 | -.3 | 0 | -2.7 | -19.0 |
| Dec. | -.6 | -3.2 | -.2 | -3.1 | -4.1 | -5.2 | -1.6 | -17.6 |
|  |  |  |  |  |  |  |  |  |
| 1999 |  |  |  |  |  |  |  |  |
| Jan. | 1.1 | 1.8 | -.2 | -2.4 | 5.1 | .6 | .2 | -10.6 |

NOTE: Some percent changes shown here and elsewhere in this release may differ from those previously reported because seasonal adjustment factors have been recalculated to reflect developments during 1998. In addition, indexes for September 1998 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

The index for finished energy goods advanced 1.8 percent in January, after posting a 2.3-percent decline in December. Prices for gasoline increased 6.5 percent, following an 8.5 -percent decrease a month earlier. The indexes for residential electric power, home heating oil, and finished
lubricants also rose, after falling a month ago. Prices for residential natural gas increased more than in the prior month.

The index for finished consumer goods other than foods and energy declined 0.1 percent in January, after registering a 1.8-percent advance in December. Price decreases for passenger cars, floor coverings, tires, periodical circulation, and men's and boys' apparel slightly outweighed price increases for prescription drugs, book publishing, sanitary papers and health products, and newspaper circulation.

Prices for capital equipment declined 0.1 percent in January, after showing no change in December. Falling prices for electronic computers, construction machinery and equipment, office and store machines and equipment, truck trailers, and oil and gas field machinery and equipment outweighed rising prices for civilian aircraft, light motor trucks, communication and related equipment, and commercial furniture.

Intermediate goods
The Producer Price Index for Intermediate Materials, Supplies, and Components edged up 0.1 percent in January, seasonally adjusted, after registering a 0.5-percent decline in December. Price indexes for both intermediate energy goods and intermediate foods and feeds turned up, following decreases a month ago. Prices for nondurable manufacturing materials fell less than in December. On the other hand, the index for durable manufacturing materials fell slightly more than in the previous month. Prices for construction materials edged up 0.1 percent for the second consecutive month. Excluding foods and energy, the index for intermediate materials fell 0.2 percent in January, the same as in the previous month. (See table B.)

The index for intermediate energy goods rose 1.8 percent in January, after posting a 3.2-percent decline in December. In January, gasoline prices turned up 6.5 percent, after falling 8.5 percent in the previous month. The index for jet fuels similarly increased 7.5 percent, following a 19.9-percent decrease a month earlier. Prices for diesel fuel, electric power, and utility natural gas also rose, after declining in the previous month. Price declines slowed for both liquefied petroleum gas and residual gas.

Prices for intermediate foods and feeds rose 1.1 percent, after posting a 0.6 -percent decline in December. The index for pork turned up 18.3 percent, following a 4.5 -percent decrease in the previous month. Prices for crude vegetable oils and for beef and veal also increased, after falling a month ago. The indexes for fluid milk products and confectionery
materials rose more than in the prior month. By contrast, prices for refined sugar turned down 1.0 percent, after a 0.1 -percent rise in December. The indexes for natural, processed, and imitation cheese and for condensed and evaporated milk products rose less than in the previous month.

The index for nondurable manufacturing materials moved down 0.1 percent in January, after posting a 0.4 -percent decline in December. Price declines for industrial chemicals, synthetic fibers, gray fabrics, plastic resins and materials, and paper slightly outweighed price increases for medicinal and botanical chemicals, woodpulp, and paperboard.

The index for durable manufacturing materials decreased 0.6 percent in January, after registering a 0.5-percent decrease in December. In January, price declines for steel mill products, flat glass, aluminum mill shapes, copper, and hardwood lumber more than offset price advances for silver, cement, plywood, and platinum.

In January, prices for materials and components for construction increased 0.1 percent, the same as in December. Price increases for softwood lumber, gypsum products, wiring devices, cement, plastic construction products, metal valves, and plumbing fixtures slightly outweighed price declines for fabricated structural metal products, nonferrous wire and cable, steel wire, and air conditioning and refrigeration equipment.

## Crude Goods

The Producer Price Index for Crude Materials for Further Processing turned up 2.6 percent in January, seasonally adjusted, following a 4.0percent drop in December. Prices for crude foodstuffs and feedstuffs, crude energy materials, and basic industrial materials also rose, after falling in the prior month. (See table B.)

Prices for crude foodstuffs and feedstuffs advanced 5.1 percent, following a 4.1-percent decline in December. The index for slaughter hogs gained 188.6 percent, after a 46.5 -percent decrease in the previous month. Prices for slaughter cattle, unprocessed finfish, and wheat also increased, after falling a month ago. The index for fresh fruits and melons rose more than in the prior month. By contrast, prices for fluid milk turned down 0.8 percent, following a 2.8 -percent gain in December. The indexes for fresh and dry vegetables and corn also fell after rising last month. Prices for slaughter broilers and fryers and for slaughter turkeys fell more than in December.

The index for crude energy rose 0.6 percent, following a 5.2-percent decline in the previous month. Prices for crude petroleum rose 16.5 percent, after a 20.2 -percent drop a month ago. The index for coal also turned up, following a decline in the prior month. On the other hand, prices for natural gas turned down 7.0 percent, after a 0.5 -percent rise in December

Prices for crude nonfood materials less energy increased 0.2 percent, after dropping 1.6 percent last month. Iron and steel scrap prices advanced 6.2 percent, following a 0.7 -percent gain in the previous month. The indexes for wastepaper and copper ores rose, after falling in the prior month. Prices for raw cotton, copper base scrap, pulpwood, and aluminum base scrap fell less than a month ago. By contrast, the index for cattle hides increased 0.3 percent, following a 9.7 -percent gain in December. Prices for gold ores; construction sand, gravel, and crushed stone; and softwood logs, bolts, and timber turned down, after rising in the previous month.

Net output price indexes for mining, manufacturing, and other industries
Mining. The Producer Price Index for the Net Output of Total Mining Industries fell 0.5 percent in January, following a 3.8 -percent decline in December. (Net output price indexes are not seasonally adjusted.) In January, prices for the oil and gas extraction industry group moved down 1.0 percent, after showing a 5.0 -percent decrease in the prior month. The index for the coal mining industry group turned up 1.4 percent, following a 1.0 -percent decrease in December. The metal mining industry group index declined 1.3 percent, after falling 3.2 percent in the month before. The index for the non-metallic mineral mining industry group turned up 0.2 percent, following a 0.2 -percent decrease in the previous month. In January, the Producer Price Index for the Net Output of Total Mining Industries stood at 65.0 (December $1984=100$ ), 14.9 percent below its yearago level.

Manufacturing. The Producer Price Index for the Net Output of Total Manufacturing Industries increased 0.4 percent in January, after decreasing 0.3 percent in December. The index for the petroleum refining and related products industry group rose 5.4 percent, following a 11.3 -percent decline in December. Prices for the food and kindred products industry group; printing and publishing industry group; and the chemical and allied products industry group also advanced, following declines last month. The index for the transportation industry group fell less than a month ago. By contrast, the index for tobacco manufactures rose 0.1 percent, following a 27.4-percent jump in the prior month. In January, the Producer Price Index for the Net Output of Total Manufacturing Industries stood at 126.3
(December $1984=100$ ), 0.1 percent below its year-ago level.
Other. Among other industries in January, prices for operators and lessors of nonresidential buildings rose 1.1 percent, after falling 2.1 percent in the previous month. Indexes for passenger car rental, without drivers; travel agencies; and hotels and motels also turned up, after declining a month earlier. Prices for offices and clinics of doctors of medicine and scheduled air transportation rose more than in December. The indexes for property and casualty insurance, the United States Postal Service, and general medical and surgical hospitals advanced, after showing no change a month ago. Prices for telephone communications, except radiotelephone, fell less than last month.

By contrast, the index for radio broadcasting decreased 2.3 percent in January, after rising 0.3 percent in December. Prices for airports, flying fields, and airport services; freight transportation arrangement; and deep sea domestic transportation of freight turned down, following an increase in the previous month. The indexes for home health care services and crude petroleum pipelines declined, after showing no change in the prior month.
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Producer Price Index data for February 1999 will be
released on Friday, March 12, 1999 at 8:30 a.m. (E.S.T.)

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Information in this news release will be made available to sensory impaired individuals upon request. Voice phone: 202-606-7828; TDD phone: 202-6065897; TDD Message Referral phone: 1-800-326-2577.
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## Resampling of Industries

Effective with this release, another set of new and resampled
industries is introduced. One (1) mining, thirty-three (33) manufacturing, and seven (7) service industries were resampled this month. In addition, $a$ service industry, life insurance carriers, was introduced into the PPI sample for the first time. Indexes for these industries appear in table 5 of the PPI Detailed Report.

Under the resampling procedure, the sample for an industry is updated to more accurately reflect changes in the structure, membership, technology, or product mix of an industry. The Bureau of Labor Statistics published the first results of this systematic process in July 1986. Subsequent efforts have been completed at 6-month intervals.

## Standard

Industrial

| 1474 | Potash, soda, and borate minerals |
| :--- | :--- |
| 2024 | Ice cream and frozen desserts |
| 2034 | Dried and dehydrated fruits, vegetables and soup mixes |
| 2038 | Frozen specialties, not elsewhere classified |
| 2047 | Dog and cat food |
| 2052 | Cookies and crackers |
| 2074 | Cottonseed oil mill products |
| 2076 | Vegetable oil mills, not elsewhere classified |
| 2084 | Wines, brandy, and brandy spirits |
| 2273 | Carpet and rugs |
| 2331 | Women's, misses', and juniors' blouses and shirts |
| 2335 | Women's, misses', and juniors' dresses |
| 2337 | Women's, misses', and juniors' suits and coats |
| 2339 | Women's, misses', and juniors' outerwear, not elsewhere classified |
| 2491 | Woodpreserving |
| 2821 | Plastic materials and resins |
| 3161 | Luggage |
| 3171 | Women's and children's handbags and purses |
| 3172 | Personal leather goods, except women's handbags and purses |
| 3357 | Nonferrous wiredrawing and insulating |
| 3399 | Primary metal products, not elsewhere classified |
| 3491 | Industrial valves |
| 3492 | Fluid power valves and hose fittings |
| 3494 | Valves and pipe fittings, not elsewhere classified |
| 3563 | Air and gas compressors |
| 3751 | Motorcycles, bicycles, and parts |
| 3821 | Laboratory apparatus and furniture |
| 3827 | Optical instruments and lenses |
| 3829 | Measuring and controlling devices, not elsewhere classified |
| 3911 | Jewelry, precious metal |
| 3915 | Jewelers' materials and lapidary work |
| 3949 | Sporting and athletic goods, not elsewhere classified |
| 3961 | Lruck rental and leasing |
| 3999 | Costume jewelry and costume novelties |

For information on specific additions, deletions, and recodes of indexes that are effective this month, see tables 12 through 18 in the January 1999 issue of the Producer Price Index Detailed Report.
*See "New Producer Price Index for the Life Insurance Industry - SIC 6311" in the January issue of the Producer Price Index Detailed Report

## Recalculation of Seasonal Adjustment Factors

Effective with this release, seasonal adjustment factors have been recalculated to reflect 1998 price movement patterns for stage-ofprocessing (SOP) and commodity groupings. This routine annual recalculation may affect seasonally adjusted indexes and percent changes from January 1994 to the present. Revised seasonally adjusted data for this period, as well as seasonal factors for commodity indexes to be used this period, as well as seasonal factors for commodity indexes to be used shows 1998 monthly seasonally adjusted percent changes for the three major SOP categories calculated with the old seasonal factors, compared with the percent changes for recalculated indexes. The latter incorporate new seasonal factors that reflect 1998 price movement patterns.

Over-the-month percent changes in major stage-of-processing indexes seasonally adjusted, using former and recalculated seasonal factors for 1998

|  | Finished Goods |  | Intermediate Goods |  | Crude Goods |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | Former | Recalculated | Former | Recalculated | Former | Recalculated |
| January | -0.6 | -0.6 | -0.6 | -0.7 | -5.8 | -5.6 |
| February | -. 1 | -. 1 | -. 3 | -. 2 | -1.9 | -1.9 |
| March | -. 1 | 0 | -. 4 | -. 3 | -1.2 | -1.4 |
| April | . 2 | . 2 | . 1 | 0 | 1.3 | 1.3 |
| May | . 1 | -. 1 | -. 1 | -. 1 | -. 4 | -. 6 |
| June | -. 2 | -. 2 | -. 3 | -. 3 | -2.6 | -2.7 |
| July | . 2 | . 2 | 0 | 0 | . 1 | . 1 |
| August | -. 3 | -. 3 | -. 3 | -. 3 | -4.0 | -4.2 |
| September | . 2 | . 2 | -. 2 | -. 3 | -1.3 | -1.8 |
| October | . 2 | . 2 | -. 2 | -. 2 | 1.7 | 2.4 |
| November | -. 2 | -. 2 | -. 2 | -. 2 | -1.4 | -. 7 |
| December | . 4 | . 4 | -. 6 | -. 5 | -3.8 | -4.0 |

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



1/ Comprehensive relative importance figures are initially computed after the publication of December indexes and are recalculated after final December indexes are available. The first-published and final December relative importances initially appear, respectively, in the release tables containing January and May data.
2/ The indexes for September 1998 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
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


| 05-73-02-01\| | Fuel oil No. 2. | . 48.0 | 39.8 | 42.1 | -23.6 | 5.8 | -5.6 | -10.8 | 6.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06-35 \| | Pharmaceutical preps, ethical (Prescription) 2/ | ..\| 332.4 | 333.4 | 338.0 | 21.4 | 1.4 | . 1 | . 1 | 1.4 |
| 06-36 | Pharmaceutical preps,proprietary (Over-counter) | 2/..\| 184.5 | 184.8 | 185.6 | . 3 | . 4 | . 3 | 0 | . 4 |
| 06-71 | Soaps and synthetic detergents 2/.. | . 126.6 | 125.2 | 125.4 | -. 6 | . 2 | -. 7 | 0 | . 2 |
| 06-75 | Cosmetics and other toilet preparations $2 /$. | .\| 133.1 | 134.0 | 133.4 | 1.8 | -. 4 | . 2 | . 3 | -. 4 |
| 07-12 | Tires, tubes, tread, etc 2/........ | . 94.0 | 94.0 | 93.0 | -1.1 | -1.1 | . 1 | 0 | -1.1 |
| 09-15-01 | Sanitary papers and health products $2 /$. | . 145.3 | 145.4 | 146.6 | . 5 | . 8 | . 8 | . 1 | . 8 |
| 09-31-01 | Newspaper circulation 2/............. | \| 202.7 | 202.8 | 204.6 | 1.1 | . 9 | 0 | 0 | . 9 |
| 09-32-01 | Periodical circulation. | \| 194.6 | 194.3 | 197.2 | 2.2 | 1.5 | . 5 | . 1 | -. 4 |
| 09-33 | Book publishing 2/ | \| 206.5 | 210.0 | 212.9 | 3.7 | 1.4 | . 3 | . 3 | 1.4 |
| 12-1 | Household furniture 2/ | \| 148.6 | 149.4 | 149.4 | 1.4 | 0 | 0 | . 3 | 0 |
| 12-3 | Floor coverings 2/. | \| 128.0 | 128.3 | 127.1 | -. 7 | -. 9 | . 8 | 0 | -. 9 |
| 12-4 | Household appliances | 1109.0 | 109.0 | 108.9 | . 6 | -. 1 | -. 1 | . 2 | 0 |
| 12-5 | Home electronic equipment $2 /$ | 174.7 | 74.4 | 74.5 | -3.1 | . 1 | 0 | -. 1 | . 1 |
| 12-62 | Household glassware 2/... | \| 163.1 | 163.0 | 163.4 | . 9 | . 2 | -. 1 | . 1 | . 2 |
| 12-64 | Household flatware 2/. | \| 138.3 | 139.4 | 140.0 | . 6 | . 4 | . 8 | 0 | . 4 |
| 12-66 | Lawn and garden equip., ex. tractors 2/ | \| 132.1 | 132.2 | 132.2 | . 9 | 0 | 0 | 0 | 0 |
| 14-11-01 | Passenger cars............... | \| 127.0 | 134.2 | 132.3 | -. 8 | -1.4 | . 1 | -. 2 | -1.2 |
| 15-11 | Toys, games, and children's vehicles | \| 124.1 | 123.7 | 124.1 | -1.0 | . 3 | . 1 | -. 2 | . 2 |
| 15-12 | Sporting and athletic goods 2/. | \| 126.2 | 126.3 | 126.0 | . 2 | -. 2 | 0 | -. 1 | -. 2 |
| 15-2 | Tobacco products 2/...... | \| 287.4 | 363.9 | 363.0 | 41.0 | -. 2 | . 2 | 26.3 | -. 2 |
| 15-5 | Mobile homes $2 /$ | \| 155.0 | 154.8 | 155.7 | 1.8 | . 6 | . 1 | -. 3 | . 6 |
| 15-94-02 | Jewelry, platinum, \& karat gold 2/ | \| 127.6 | 128.6 | 128.9 | . 3 | . 2 | . 1 | . 2 | . 2 |
| 15-94-04 | Costume jewelry and novelties 2/.. | 1139.8 | 139.8 | 140.2 | 1.0 | . 3 | . 2 | 0 | . 3 |
|  | CAPITAL EQUIPMENT | $136.7$ | 137.8 | 137.7 | -. 1 | -. 1 | . 1 | 0 | -. 1 |
|  |  | I |  |  |  |  |  |  |  |
| 11-1 | Agricultural machinery and equipment $2 /$ | . 150.7 | 149.6 | 149.9 | . 1 | . 2 | -. 1 | -. 1 | . 2 |
| 11-2 | Construction machinery and equipment. | . 145.3 | 145.4 | 146.2 | 1.0 | . 6 | . 1 | . 2 | -. 3 |
| 11-37 | Metal cutting machine tools $2 /$. | \| 160.2 | 160.2 | 160.2 | . 7 | 0 | . 2 | -. 1 | 0 |
| 11-38 | Metal forming machine tools 2/. | 1158.3 | 158.6 | 159.2 | 2.3 | . 4 | . 1 | 0 | . 4 |
| 11-39 | Tools, dies, jigs, fixtures, and ind. molds $2 /$ | . 138.9 | 139.0 | 139.0 | . 4 | 0 | . 1 | 0 | 0 |
| 11-41 | Pumps, compressors, and equipment...... | . 149.4 | 149.5 | 150.7 | 1.6 | . 8 | . 2 | . 3 | . 2 |
| 11-44 | Industrial material handling equipment $2 /$ | . 131.8 | 131.9 | 132.1 | 1.3 | . 2 | -. 2 | . 2 | . 2 |
| 11-51 | Electronic computers (Dec. 1990=100) 2/.. | . 23.1 | 22.0 | 21.0 | -26.3 | -4.5 | -1.8 | -. 9 | -4.5 |
| 11-62 | Textile machinery 2/.. | .\| 152.8 | 152.8 | 152.9 | . 2 | . 1 | 0 | 0 | . 1 |
| 11-64 | Paper industries machinery (June 1982=100) | . 159.7 | 162.2 | 162.6 | 1.8 | . 2 | . 6 | 0 | . 2 |
| 11-65 | Printing trades machinery $2 /$. | \| 142.8 | 142.1 | 142.2 | 2.4 | . 1 | -1.0 | 0 | . 1 |
| 11-74 | Transformers and power regulators 2/. | . 131.8 | 131.3 | 131.4 | . 8 | . 1 | -. 5 | -. 3 | . 1 |
| 11-76 | Communication \& related equip. (Dec. 1985=100) | 2/...\| 113.6 | 113.4 | 113.5 | -1.1 | . 1 | . 1 | -. 3 | . 1 |
| 11-79-05 | X-ray and electromedical equipment $2 / . . . . .$. | 1105.8 | 105.9 | 106.0 | -1.4 | . 1 | . 9 | -. 9 | . 1 |
| 11-91 | Oil field and gas field machinery | . 125.9 | 126.4 | 126.6 | . 7 | . 2 | 0 | . 2 | -. 6 |
| 11-92 | Mining machinery and equipment $2 /$. | . 142.4 | 142.3 | 143.0 | . 8 | . 5 | . 1 | 0 | . 5 |
| 11-93 | Office and store machines and equipment $2 /$. | . 112.3 | 112.2 | 111.9 | -. 3 | -. 3 | . 1 | -. 1 | -. 3 |
| 12-2 \| | Commercial furniture 2/.......... | . 155.2 | 155.3 | 155.6 | . 6 | . 2 | . 1 | 0 | . 2 |



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)





1/ The indexes for September 1998 have been recalculated to incorporate late reports and corrections by respondents. All indexes are subject to revision 4 months after original publication.

2/ Not seasonally adjusted.
3/ Not available

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



| 131.2 | \| | 131.4 | \| | 131.3 |
| :---: | :---: | :---: | :---: | :---: |
| 136.4 | \| | 136.6 | \| | 136.8 |
| 139.6 | \| | 142.2 | \| | 141.9 |
| 156.3 | \| | 166.1 | \| | 165.8 |
|  |  |  | I |  |
|  |  |  | \| |  |
| 138.5 | \| | 138.7 | \| | 138.7 |
|  |  |  | \| |  |
|  | \| |  | I |  |
|  | \| |  | \| |  |
|  | \| |  | \| |  |
|  |  |  | , |  |
| 114.9 | \| | 115.6 | \| | 120.6 |
| 76.3 | \| | 87.1 | 1 | 87.0 |
| 79.0 | \| | 67.3 | 1 | 79.3 |
| 164.1 | \| | 136.2 | 1 | 129.5 |
| 117.8 | \| | 97.7 | \| | 93.5 |
| 107.4 | \| | 121.5 | 1 | 109.7 |
| 112.4 | \| | 113.9 | 1 | 112.0 |
| 101.0 | \| | 105.5 | , | 103.2 |
| 156.9 | \| | 167.9 | , | 167.7 |
| 156.3 | \| | 157.5 | 1 | 157.9 |
| 113.9 | \| | 107.6 | 1 | 110.9 |
| 129.4 | \| | 117.1 | \| | 114.9 |
| 134.7 | 1 | 134.8 | 1 | 135.2 |
| 136.6 | \| | 137.4 | 1 | 137.6 |
| 134.6 | \| | 136.1 | \| | 134.6 |
| 143.3 | \| | 140.0 | 1 | 139.2 |
| 126.9 | \| | 126.7 | 1 | 126.8 |
| 144.7 | \| | 144.7 | \| | 144.9 |
| 64.4 | \| | 72.0 | \| | 67.4 |
| 135.2 | \| | 126.6 | 1 | 126.7 |
| 49.7 | \| | 41.8 | 1 | 44.6 |
| 247.2 | \| | 248.0 | , | 252.0 |
| 126.2 | \| | 126.1 | 1 | 124.7 |
| 135.3 | \| | 135.0 | 1 | 134.8 |
| 115.3 | । | 115.1 | \| | 114.6 |
| 116.2 | \| | 115.1 | 1 | 114.9 |
| 138.8 | \| | 138.6 | 1 | 138.7 |
| 129.1 | \| | 128.7 | , | 128.7 |
| 174.2 | \| | 172.9 | + | 177.8 |
|  | 1 |  | , |  |
| 146.1 | \| | 143.4 | 1 | 143.3 |
| 152.0 | \| | 150.3 | , | 150.4 |
| 120.5 | \| | 115.0 | \| | 114.6 |


| 10-2 | Nonferrous metals | 120.7 | 116.5 | 115.8 |
| :---: | :---: | :---: | :---: | :---: |
| 10-25 | Nonferrous mill shapes | 135.1 | 131.9 | 130.9 |
| 11-3 | Metalworking machinery and equipment | 147.3 | 147.5 | 147.5 |
| 11-4 | General purpose machinery and equipme | 147.9 | 148.4 | 148.9 |
| 11-6 | Special industry machinery. | 159.4 | 160.1 | 160.5 |
| 11-7 | Electrical machinery and equipment | 120.6 | 120.5 | 120.5 |
| 11-9 | Miscellaneous machinery and equipment | 132.1 | 132.3 | 132.8 |
| 12-6 | Other household durable goods. | 151.6 | 151.8 | 152.0 |
| 13-2 | Concrete ingredients | 149.0 | 149.3 | 149.6 |
| 14-1 | Motor vehicles and equipment | 128.8 | 132.8 | 132.0 |
| 15-1 | Toys, sporting goods, small arms, etc | 132.4 | 132.4 | 132.4 |
| 15-4 | Photographic equipment and supplies | 114.3 | 114.3 | 113.3 |
| 15-9 | Other miscellaneous products | 134.8 | 134.6 | 135.1 |

1/ Data for September 1998 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 major industry groups, not seasonally adjusted


| 26 | Paper and allied products. | \| 12/84| | 135.5 | 134.0 | 133.5 | -3.1 | -. 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | Printing, publishing, and allied industries. | \| $12 / 84 \mid$ | 174.3 | 174.9 | 175.9 | 1.6 | . 6 |
| 28 | \| Chemicals and allied products | \| $12 / 84$ \| | 148.5 | 147.9 | 148.1 | . 5 | . 1 |
| 29 | Petroleum refining and related products | \| $12 / 84$ \| | 64.2 | 55.8 | 58.8 | -20.3 | 5.4 |
| 30 | \| Rubber and miscellaneous plastic products. | \| 12/84| | 121.9 | 121.7 | 121.6 | -. 9 | -. 1 |
| 31 | \| Leather and leather products. | \| 12/84| | 137.2 | 136.7 | 136.1 | -. 9 | -. 4 |
| 32 | \| Stone, clay, glass, and concrete products | \| 12/84| | 130.2 | 130.2 | 130.5 | 2.3 | . 2 |
| 33 | \| Primary metal industries. | \| 12/84| | 120.1 | 117.2 | 116.3 | -5.7 | -. 8 |
| 34 | \| Fabricated metal products, except machinery and transportation equipment................ | $\|12 / 84\|$ | 128.9 | 128.8 | 128.9 | . 5 | 1 |
| 35 | \| Machinery, except electrical. | \| 12/84| | 117.6 | 117.4 | 117.4 | -. 6 | 0 |
| 36 | \| Electrical and electronic machinery, <br> equipment, and supplies............. | $\begin{aligned} & \mid \\ & \|12 / 84\| \end{aligned}$ | 110.2 | 109.8 | 109.9 | -. 8 | 1 |
| 37 | \| Transportation equipment............. | \| $12 / 84$ \| | 131.8 | 134.8 | 134.7 | . 7 | -. 1 |
| 38 | \| Measuring and controlling instruments; photographic, medical, optical goods; watches, clocks....................... | $\begin{aligned} & \mid \\ & \|12 / 84\| \end{aligned}$ | 125.9 | 126.1 | 126.0 | . 3 | -. 1 |
| 39 |  | $\mid$ | 129.9 | 129.8 | 130.1 | . 4 | . 2 |
| 40 | \| Railroad transportation | \| 12/96| | 101.8 | 101.4 | 101.4 | -. 4 | 0 |
| 42 | \| Motor freight transportation and warehousing | \|06/93| | 112.4 | 112.6 | 113.2 | 2.4 | . 5 |
| 43 | \| United States Postal Service. | \|06/89| | 132.3 | 132.3 | 135.4 | 2.3 | 2.3 |
| 44 | \| Water transportation. | \| 12/92| | 108.9 | 106.0 | 106.0 | 2.9 | 0 |
| 45 | \| Transportation by air. | \| 12/92| | 125.2 | 126.5 | 127.6 | 4.1 | . 9 |
| 46 | \| Pipe lines, except natural gas | \| 12/86| | 99.2 | 99.2 | 96.9 | -2.4 | -2.3 |
| 80 | \| Health services | \| 12/94| | 108.0 | 108.3 | 108.9 | 1.8 | . 6 |
| 81 | \| Legal services......... | \| 12/96| | 106.5 | 106.7 | 107.2 | 2.0 | . 5 |

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 September 1998 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.
Table 5. Producer price indexes by stage of processing, seasonally adjusted
(1982=100)


| Finished goods | 130.3 | 130.6 | 130.9 | 130.6 | 131.1 | 131.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Finished consumer goods | 128.6 | 128.8 | 129.2 | 128.8 | 129.5 | 130.5 |
| Finished consumer foods | 134.1 | 134.4 | 134.9 | 134.3 | 134.3 | 136.5 |
| Crude. | 119.3 | 122.7 | 132.9 | 125.6 | 128.5 | 138.2 |
| Processed. | 135.2 | 135.3 | 135.1 | 135.0 | 134.8 | 136.4 |
| Finished consumer goods, excluding foods.....। | 126.1 | 126.2 | 126.6 | 126.3 | 127.3 | 127.8 |
| Nondurable goods less foods | 121.9 | 121.8 | 122.3 | 121.7 | 123.2 | 124.0 |
| Durable goods. | 132.4 | 133.1 | 133.3 | 133.3 | 133.3 | 132.9 |
| Capital equipment | 137.2 | 137.6 | 137.5 | 137.7 | 137.7 | 137.5 |
| Manufacturing industries | 137.8 | 138.0 | 138.0 | 138.1 | 138.1 | 138.1 |
| Nonmanufacturing industries | 136.9 | 137.4 | 137.3 | 137.4 | 137.4 | 137.1 |
| Intermediate materials, supplies, and components.। | 122.8 | 122.4 | 122.2 | 121.9 | 121.3 | 121.4 |
| Materials and components for manufacturing | 125.9 | 125.4 | 125.1 | 124.7 | 124.3 | 124.2 |
| Materials for food manufacturing. | 123.6 | 124.3 | 124.7 | 124.8 | 123.7 | 125.3 |
| Materials for nondurable manufacturing | 126.4 | 125.1 | 124.7 | 124.0 | 123.5 | 123.4 |
| Materials for durable manufacturing. | 127.8 | 127.2 | 126.1 | 125.4 | 124.8 | 124.1 |
| Components for manufacturing. | 125.8 | 125.9 | 125.8 | 125.7 | 125.8 | 125.7 |
| Materials and components for construction | 147.3 | 147.3 | 146.7 | 146.7 | 146.8 | 147.0 |
| Processed fuels and lubricants. | 80.0 | 79.6 | 80.2 | 79.4 | 77.0 | 78.2 |
| Manufacturing industries | 85.0 | 84.7 | 84.8 | 84.9 | 83.2 | 83.9 |
| Nonmanufacturing industries | 77.0 | 76.5 | 77.5 | 76.2 | 73.3 | 74.8 |
| Containers | 140.9 | 140.7 | 140.0 | 139.4 | 138.6 | 138.5 |
| Supplies. | 134.8 | 134.3 | 134.2 | 134.3 | 134.3 | 134.1 |
| Manufacturing indust | 140.6 | 140.7 | 140.7 | 140.7 | 140.7 | 140.3 |
| Nonmanufacturing industrie | 132.2 | 131.6 | 131.3 | 131.5 | 131.6 | 131.4 |
| Feeds. | 98.0 | 92.9 | 90.6 | 92.4 | 92.5 | 93.0 |
| Other supplie | 136.3 | 136.3 | 136.3 | 136.3 | 136.3 | 136.1 |
| Crude materials for further processing. | 93.3 | 91.6 | 93.8 | 93.1 | 89.4 | 91.7 |
| Foodstuffs and feedstuffs. | 100.9 | 100.0 | 102.9 | 102.6 | 98.4 | 103.4 |
| Nonfood materials | 84.8 | 82.6 | 84.1 | 83.2 | 80.0 | 80.4 |
| Nonfood materials except fuel $2 /$ | 80.1 | 83.1 | 81.0 | 77.8 | 72.7 | 75.5 |
| Manufacturing 2/. | 72.6 | 75.4 | 73.5 | 70.4 | 65.5 | 68.2 |
| Construction | 194.1 | 192.7 | 192.4 | 191.3 | 192.4 | 190.6 |
| Crude fuel 3/. | 84.4 | 75.3 | 81.6 | 83.9 | 83.7 | 80.6 |
| Manufacturing industries | 83.4 | 74.3 | 80.0 | 81.4 | 81.9 | 77.5 |
| Nonmanufacturing industries................ | 86.0 | 76.7 | 83.1 | 85.7 | 85.3 | 82.4 |
| Special groupings |  |  |  |  |  |  |
| Finished goods, excluding foods. | 129.1 | 129.4 | 129.6 | 129.4 | 130.1 | 130.4 |
| Intermediate materials less foods and feeds......l | 123.2 | 122.9 | 122.7 | 122.3 | 121.7 | 121.8 |
| Intermediate foods and feeds...................... | 115.8 | 114.7 | 114.2 | 114.8 | 114.1 | 115.3 |
| Crude materials less agricultural products 2/....l | 83.8 | 81.3 | 82.9 | 82.0 | 78.9 | 79.3 |



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 September 1998 have been recalculated to incorporate late reports and corrections by respondents.
2/ Includes crude petroleum.
3/ Excludes crude petroleum.

## Technical Notes

Brief Explanation of
Producer Price Indexes
Producer price indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. Most of the information used in calculating the indexes is obtained through the systematic sampling of nearly every industry in the manufacturing and mining sectors of the economy. The PPI program also includes some information from other sectors--agriculture, fishing, forestry, services, and gas and electricity. Because producer price indexes are designed to measure only the change in prices received for the output of domestic industries, imports are not included. The sample currently contains about 3,200 commodities and 80,000 quotations per
month.
There are three primary systems of indexes within the PPI program: (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 and 2) organizes products by class of buyer and degree of processing. 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) and the Census product code extension of the 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. 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.

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-ofprocessing 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.

Weights for most traditional commodity groupings of the PPI, as well as all indexes (such as stage-of-processing indexes) calculated from traditional commodity groupings, currently reflect 1987 values of shipments as reported in the Census of Manufactures and other sources. From January 1987 through December 1991, PPI weights were derived from 1982 shipment values. Industry indexes shown in table 4 are also now calculated with 1987 net output weights.

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, to coincide
with the reference year of the shipment weights. 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 16, "Producer Prices," in BLS Handbook of Methods (September 1992), Bulletin 2414. Reprints are available from the Bureau of Labor Statistics on request.

Calculating Index Changes
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 chances are affected by the level of the index in relation to its base period, while percent changes are not. The box shows the computation of index point and percent changes.

Percent changes for $3-$ month and 6 -month periods can be expressed as annual rates that are computed according to the standard formula for compound growth rates. These data indicate what the percent change would be if the rate for a given 3- or 6-month span were maintained for a 12-month period.

## 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

Result multiplied by 100 Equals percent change
$0.034 \times 100$
3.4

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 $\$ 105.50$ to-day." 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 .

Seasonally Adjusted
and Unadjusted Data
Because price data are used for different purposes by different groups, the Bureau of Labor Statistics publishes seasonally adjusted as well as 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 which 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 "Appendix A: Seasonal Adjustment Methodology at BLS," in the BLS Handbook of Methods (September 1992), Bulletin 2414.

