

Producer price highlights, 1998

The crude and intermediate stage-of-processing components of the Producer Price Index declined in 1998; however, the finished goods index showed no change, as falling prices for energy goods offset rising prices for consumer goods other than foods and energy

William D. Thomas
and
Joseph Kowal

The Producer Price Index (PPI) for Finished Goods showed no change in 1998, after falling 1.2 percent in 1997 and rising 2.8 percent in 1996. The 1997–98 period marked the first time since 1947—the earliest year for which data are available—that this index failed to show an increase over a 2-year span. Within finished goods, prices for finished goods other than foods and energy—a category that includes both consumer goods and capital equipment—increased 2.5 percent in 1998, after showing no change a year earlier. The index for consumer foods rose 0.1 percent in 1998, after decreasing 0.8 percent in 1997. However, the index for finished energy goods fell 11.7 percent, after declining 6.4 percent over the previous 12 months. (See table 1.)

At the earlier stages of processing, the PPI for Intermediate Materials, Supplies, and Components fell 3.3 percent, after declining 0.8 percent a year earlier. This index measures price movements for goods such as flour, steel, lumber, industrial chemicals, diesel fuel, and paper boxes and containers. Similarly, prices for crude goods for further processing also fell in 1998, declining 16.7 percent, after falling 11.3 percent in 1997. Crude goods include commodities such as wheat, slaughter cattle, crude petroleum, natural gas, scrap metals, logs and timber, and cotton. Prices for energy- and food-related materials at both the intermediate and crude stages of processing fell more in 1998 than in 1997. Excluding foods and energy,

the intermediate index turned down in 1998, after moving up 0.3 percent in 1997. For crude nonfood materials less energy, a 16.0-percent decline in 1998 followed no change in the previous year.

Table 2 shows that in each of the stage-of-processing categories, the ratio of advancing to declining indexes fell over the 1997–98 period.¹ For example, although the index for finished goods was unchanged in 1998, the ratio of advancing to declining indexes within finished goods fell slightly. This shift was due primarily to the component index, finished goods other than foods and energy, where the percentage of indexes in decline rose in 1998. This occurred in spite of the fact that this index advanced 2.5 percent for the year, after showing no change in 1997.

A detailed look at the 1998 commodity data reveals that much of the rise in prices for finished goods other than foods and energy is linked to one commodity area—cigarettes. In fact, the 49.4-percent increase in cigarette prices during 1998 accounted for roughly three-fifths of the rise in the index for finished goods less foods and energy. If cigarettes were excluded from total finished goods, that index would have declined roughly 1.2 percent in 1998, the same rate as in 1997. Within finished energy goods, only 1 of the 12 commodity components advanced—the index for lubricating grease. In 1998, the ratio of advancing to declining indexes within finished consumer foods rose. During the same period, prices increased at a 0.1-percent annual rate, after falling at a 0.8-percent rate the

William D. Thomas
and Joseph Kowal
are economists in the
Office of Prices and
Living Conditions,
Bureau of Labor
Statistics.

Table 1. Annual percent changes for major categories of the Producer Price Index by stage of processing, 1994-98

Index	1994	1995	1996	1997	1998
Finished goods	1.7	2.3	2.8	-1.2	0.0
Foods	1.1	1.9	3.4	-8	.1
Energy	3.5	1.1	11.7	-6.4	-11.7
Other	1.6	2.6	.6	.0	2.5
Intermediate materials, supplies, and components ...	4.4	3.3	.7	-8	-3.3
Foods and feeds	-4.5	10.3	2.1	-1.7	-7.3
Energy	2.9	1.1	11.2	-7.0	-12.1
Other	5.2	3.2	-9	.3	-1.6
Crude materials for further processing	-5	5.5	14.7	-11.3	-16.7
Foodstuffs and feedstuffs ...	-9.4	12.9	-1.0	-4.0	-11.0
Energy	-1	3.7	51.2	-23.1	-23.8
Other	17.3	-4.2	-5.5	.0	-16.0

year before.

Within intermediate materials, the shift to a greater proportion of declining indexes as a percentage of all indexes was in lockstep with price movement. Each major stage-of-processing category within intermediate materials—foods, energy, and core intermediate materials—showed both a decelerating rate of change and declining prices for 1998. While finished goods showed no change and intermediate materials displayed downward price movement in 1998, the number of advancing indexes still outweighed the number of declining indexes. By contrast, within crude goods, this ratio turned solidly in favor of decliners. The price declines observed in overall crude goods and its components were generally sweeping in nature, with declines for nearly two-thirds of the indexes in this stage-of-processing category.

Real gross domestic product (GDP) increased 3.9 percent in 1998, following growth rates of 3.9 percent in 1997 and 3.4 percent in 1996. As in recent years, business investment in equipment bolstered GDP growth in 1998, while weak exports were offset by stepped-up, already robust, household spending on goods, services, and housing. The unemployment rate for much of the year hovered around 4.5 percent, its lowest rate in 29 years. (For most of 1997, the unemployment rate lingered at or near 5.0 percent.) Prices for exports leaving the United States fell 3.5 percent in 1998, while import prices declined 6.4 percent for the same period.² At the same time, consumer-level inflation, as measured by the Consumer Price Index, was 1.6 percent in 1998, just slightly less than the previous year's rate of 1.7 percent, the lowest rate observed since 1986.

Finished goods other than foods and energy

The index for finished goods other than foods and energy advanced 2.5 percent in 1998, after showing no change in

1997. Much of the upturn was due to an acceleration in price increases for cigarettes and prescription drugs. The stage-of-processing component index for finished consumer goods other than foods and energy increased 4.2 percent in 1998, after rising 0.3 percent a year earlier. Prices for capital equipment showed no change, following a 0.6-percent decline in 1997. (See table 3.)

Among finished consumer goods other than foods and energy, 1998 prices rose more rapidly for cigarettes, prescription drugs, cosmetics and other toilet preparations, specialty cleaning products, wood household furniture, and mobile homes. After declining the previous year, prices increased for passenger cars, light motor trucks, malt beverages, lawn and garden equipment, and primary wet and dry storage batteries. Prices declined (although less than in the previous year) for major appliances, sanitary paper products, tires, and television receivers. By contrast, prices declined after rising the previous year for soaps and detergents, wines and brandy spirits, and photographic supplies. Price increases slowed for periodical circulation. As has been the case in recent years, prices for electronic computers fell substantially in 1998, 26.6 percent, following a 21.6-percent decline in 1997. Meanwhile, the index for computer peripheral equipment, which includes items such as printers, monitors, and optical scanning devices, also declined more rapidly in 1998.

The index for capital equipment showed no change in 1998, following a 0.6-percent decline a year earlier. Prices increased after falling for passenger cars, light motor trucks, air conditioning and refrigeration equipment, and fluid meters and counting devices. Price increases accelerated for engineering and scientific instruments, as well as for aircraft. Price decreases slowed for refrigerators and medical instruments and equipment. By contrast, the index for electronic computers and computer equipment fell more rapidly in 1998 than in 1997. Prices turned down after rising a year earlier for communication and related equipment, while the index for integrating and measuring instruments fell, after showing no change in 1997. Price increases slowed for agricultural machinery and equipment, service industry machinery and parts, process control instruments, and wood office furniture and store fixtures.

Tobacco products and alcohol. Prices for tobacco products rose rapidly in 1998, increasing by 41.3 percent, following an increase of 7.7 percent the previous year. Most of the acceleration was due to the index for cigarettes, which advanced 49.4 percent in 1998, following a 10.0-percent rise in 1997. In fact, the cigarette price hike influenced the overall PPI for Finished Goods more than any other single index. If it were excluded, the Finished Goods index would have declined at nearly the same rate as in 1997, 1.2 percent. Similarly, the 2.5-percent rise in finished goods other than foods

and energy is reduced by roughly three-fifths if cigarettes are excluded from the calculation.

Much of the advance in cigarette prices came with the release of December data, following the \$206 billion settlement agreed to between the Nation's five largest cigarette manufacturers and attorneys-general from 46 States, the District of Columbia, and five U.S. territories. (Producers had reached settlements earlier with Mississippi, Florida, Texas, and Minnesota.) Settlement payments are to be made over the next 25 years. In addition to December's 30.7-percent increase in cigarette prices, four other noteworthy price hikes occurred in 1998, ranging in size from 2.1 percent to 4.2 percent. The cigar index advanced 8.8 percent in 1998. Over the last decade, cigar prices have consistently risen, leaving prices nearly double what they were 10 years ago.

The index for alcoholic beverages rose 1.5 percent in 1998, after falling 0.5 percent in the previous year. This upturn was driven solely by rising prices for malt beverages, which advanced at a 2.8-percent rate, following a 1.5-percent rate of decline in 1997. A stabilization in what had been declining rates of domestic beer consumption seems to have helped firm up prices. However, the indexes for wine and brandy and for distilled spirits fell in 1998, after showing increases a year earlier. Exports of wine and distilled spirits to the Far East also fell, while domestic con-

sumption of hard liquor continued its downward trend.

Transportation equipment. The index for motor vehicles increased 0.9 percent in 1998, after moving down 2.7 percent in 1997. Prices rose 0.5 percent for passenger cars, 1.0 percent for light trucks, and 3.9 percent for heavy trucks. Motor vehicle sales were buoyant in 1998, as manufacturers sold roughly 15.6 million new cars and light trucks during the year, up 2.9 percent from the previous year. This was the second-highest sales-volume year on record, with 1986 being the all-time mark. However, a sizable portion of overall sales during early 1998 resulted from incentives and discounts instituted to move inventory. As a result, prices for passenger cars and light trucks fell noticeably during spring and summer. Prices, however, did rebound with the introduction of the new model-year vehicles in October. Cost cutting efforts continued in the passenger car and light motor truck markets, with manufacturers attempting to increase profits while holding costs and prices steady. During this period of highly competitive markets, global overcapacity, the prospect of lower sales, and weakness in Asian economies, automakers pursued mergers and joint ventures in hope of realizing manufacturing cost savings and economies-of-scale benefits.

The index for aircraft and aircraft equipment increased 1.1

Table 2. Advancing and declining Producer Price Indexes for selected stage-of-processing groupings, 1996-98

[Not seasonally adjusted]

Index	1996-97			1997-98		
	Advances	Declines	Unchanged	Advances	Declines	Unchanged
Number of indexes						
Finished goods	386	153	16	368	167	11
Consumer foods	38	43	0	47	31	0
Energy goods	3	10	0	1	11	0
Except food and energy	345	100	16	320	125	11
Intermediate goods	413	210	18	367	251	14
Foodstuffs and feedstuffs	23	32	0	24	28	0
Energy materials	7	12	1	1	17	0
Except food and energy	390	178	17	345	220	14
Crude goods	35	28	0	20	41	2
Foodstuffs and feedstuffs	15	15	0	11	18	0
Energy materials	1	2	0	0	3	0
Nonfood materials less energy	20	13	0	10	24	0
Percent						
Finished goods	69.5	27.6	2.9	67.4	30.6	2.0
Consumer foods	46.9	53.1	0	60.3	39.7	0
Energy goods	23.1	76.9	0	8.3	91.7	0
Except food and energy	74.8	21.7	3.5	70.2	27.4	2.4
Intermediate goods	64.4	32.8	2.8	58.1	39.7	2.2
Foodstuffs and feedstuffs	41.8	58.2	0	46.2	53.8	0
Energy materials	35.0	60.0	5.0	5.6	94.4	0
Except food and energy	66.7	30.4	2.9	59.6	38.0	2.4
Crude goods	55.6	44.4	0	31.7	65.1	3.2
Foodstuffs and feedstuffs	50.0	50.0	0	37.9	62.1	0
Energy materials	33.3	66.7	0	0	100.0	0
Nonfood materials less energy	60.6	39.4	0	29.4	70.6	0

NOTE: Calculations are based on 12-month change from December to December of indicated years.

Table 3. Annual percent changes in Producer Price Indexes for selected finished goods other than foods and energy, 1994–98

Index	1994	1995	1996	1997	1998
Finished goods other than foods and energy	1.6	2.6	0.6	0.0	2.5
Finished consumer goods less foods and energy	1.4	2.8	.8	.3	4.2
Passenger cars	2.1	1.7	-.8	-2.6	.5
Light trucks	3.3	1.5	.2	-3.6	1.0
Prescription drugs	3.1	4.2	2.0	3.6	20.9
Over-the-counter drugs .	1.7	1.7	-1.7	.3	.0
Cigarettes	-.1	3.7	3.3	10.0	49.4
Books	5.4	6.5	3.2	3.3	4.1
Periodical circulation	3.6	4.8	2.0	4.0	3.4
Newspaper circulation ...	3.3	8.8	4.2	.1	1.1
Household furniture	2.7	2.7	1.4	1.1	1.9
Capital equipment	2.0	2.2	.4	-.6	.0
Heavy trucks	3.0	4.1	-4.5	.6	3.9
Truck trailers	7.7	2.2	-1.4	2.0	1.9
Metal-cutting machine tools	1.8	4.1	3.1	2.1	1.5
Metal-forming machine tools	3.5	2.2	2.6	3.2	1.8
Computers	-6.8	-12.7	-22.3	-21.6	-26.6
Agricultural machinery ...	2.7	4.7	1.4	1.4	.7
Construction machinery .	2.0	2.5	1.8	1.9	1.7

percent in 1998, with prices rising in response to routine contract escalations due to cost increases for labor and materials. Demand for aircraft and parts was mixed, with ample domestic demand offset by weakness abroad and competition from European manufacturers. The index for railroad equipment and parts rose 0.7 percent in 1998, after declining 1.5 percent a year earlier. This turnaround came about mainly due to new-found price strength in locomotives and parts, which advanced 1.1 percent in 1998, after registering a 4.5-percent decline in 1997. Overall, increasing transportation needs, fueled by the strong domestic economy, seem to have helped firm up prices for transportation products such as locomotives and heavy-motor trucks, as well as for transportation services such as local and long-haul trucking and water transportation of freight.

Drugs and pharmaceuticals. Price increases for drugs and pharmaceuticals accelerated in 1998, on the strength of a much more rapid advance in prescription drugs, which surged 20.9 percent, after posting a 3.6-percent rise in 1997. This advance was fueled by a dramatic increase in prices for psychotherapeutic drugs. However, more moderate increases were observed in other prescription drug categories. Prices for systemic anti-infectives, cardiovascular therapy, dermatologicals, and internal analgesics showed modest increases, while the index for antiarthritic prescription drugs declined 0.2 percent. In contrast to prices for prescription drugs, prices for over-the-counter drugs showed no change, after posting a 0.3-percent gain in the prior year. Over-the-counter drug manufacturers spent much of 1998 adjusting prices modestly through the use of coupons

and other special promotions.

Computers. The index for electronic computers fell 26.6 percent in 1998—the third straight calendar year that this index has declined more than 20 percent. Prices fell sharply for personal computers and workstations (46.3 percent), portable computers (47.4 percent), and midrange computers (23.8 percent). The index for large-scale general purpose computers dropped more moderately (10.9 percent). Consumers had more choices than ever before in 1998, as improving technology and production processes continued to result in a multiplicity of improved, low-priced configurations. As in other recent years, heightened price competition was prevalent throughout the industry. The Asian economic crisis added additional price pressure by acting as a source of inexpensive components.

Foods and related products

Prices received by domestic producers of finished consumer foods inched up 0.1 percent in 1998, after falling 0.8 percent in 1997. (See table 4.) Contributing to this turnaround, the indexes for natural, processed and imitation cheese, fluid milk products, fresh vegetables (except potatoes), and shortening and cooking oils all displayed accelerating rates of inflation. Prices turned up after falling a year earlier for young chickens, processed fruits and vegetables, and soft drinks, and for dry, condensed, and evaporated milk products. Declines were smaller in 1998 than in 1997 for beef and veal and eggs for fresh use. By contrast, prices turned down in 1998 after increasing in 1997 for roasted coffee, butter, and finfish and shellfish. The indexes for pork and fresh fruits and melons

Table 4. Annual percent changes in Producer Price Indexes for selected food items, 1994–98

Index	1994	1995	1996	1997	1998
Finished consumer foods	1.1	1.9	3.4	-0.8	0.1
Pork	-11.1	15.3	21.9	-13.6	-27.3
Dairy products	-2.0	5.4	2.4	4.7	10.7
Fresh fruits and melons ...	-11.2	2.5	37.2	-8.2	-19.0
Fresh and dry vegetables	25.6	-36.0	-24.3	21.6	8.8
Roasted coffee	49.8	-8.2	-8.4	18.1	-9.5
Beef and veal	-4.8	-1.4	7.4	-5.4	-2.7
Processed poultry	-3.7	8.4	2.6	-6.3	3.8
Intermediate foods and feeds	-4.5	10.3	2.1	-1.7	-7.3
Prepared animal feeds ...	-10.6	20.6	5.4	-3.1	-20.4
Crude vegetable oils	4.1	-14.1	-9.3	13.9	-2.7
Flour	-1.1	20.1	-9.0	-8.2	-5.6
Confectionery materials ...	2.2	1.5	2.2	-15.8	-1.0
Refined sugar .....	.8	.8	4.2	-4.5	.6
Crude foodstuffs and feedstuffs	-9.4	12.9	-1.0	-4.0	-11.0
Slaughter hogs	-21.3	40.6	23.2	-21.7	-76.8
Soybeans	-18.1	26.7	-3.7	1.8	-21.3
Wheat	-5.6	29.9	-19.3	-11.3	-15.0
Corn	-22.4	49.4	-21.0	2.2	-22.5
Fluid milk	-5.2	8.4	1.1	2.8	25.6
Slaughter cattle	-5.3	-5.2	-2.5	2.0	-12.0

fell at a faster rate during the most recent year. Price increases slowed markedly for Irish potatoes for consumer use.

The index for intermediate foods and feeds fell 7.3 percent in 1998, following a 1.7-percent decline a year earlier. Prepared animal feed prices declined 20.4 percent, after registering a much smaller drop in 1997 (3.1 percent). Prices for pork also fell at a faster rate, tumbling 27.3 percent, following an already steep 13.6-percent rate of decline in 1997. Price increases slowed for the following items: bulk fluid milk and cream; refined vegetable oils; frozen packaged fish and seafood; canned, cooked, smoked, and prepared poultry; and jams, jellies, and preserves. Prices turned down after increasing in 1997 for crude vegetable oils, chicken hens and other small-game poultry, and tea. By contrast, price increases for natural cheese (except cottage cheese) accelerated to 21.4 percent in 1998, following a 6.1-percent increase in 1997. Prices for refined sugar turned up after falling the previous year, while the index for granulated sugar showed no change after falling the year before. Prices fell less in 1998 than in 1997 for beef and veal, confectionery materials, and flour.

Farm prices, as measured by the Producer Price Index for Crude Foodstuffs and Feedstuffs, decreased 11.0 percent in 1998, after declining 4.0 percent in 1997. The index for slaughter cattle declined 12.0 percent, after registering a 2.0-percent gain 12 months earlier. Slaughter-hog prices plunged 76.8 percent, following an already large, 21.7-percent drop a year earlier. Prices turned down after rising for corn, soybeans, alfalfa hay, and unprocessed and packaged fish. The indexes for wheat, Louisiana rough rice, and breaker-stock and undergrade chicken eggs declined at a faster rate in 1998 than in the previous year. By contrast, fluid milk prices surged in 1998. Citrus fruit, slaughter broilers, and slaughter turkey prices advanced, after declining the previous year.

Grains and feeds. Grain prices fell 18.9 percent in 1998, following a 2.0-percent drop in 1997, and a 20.3-percent decline in 1996. Generally favorable growing conditions throughout 1998 resulted in ample crop harvests and yields per acre.³ The 1998 corn harvest improved 6.0 percent from its 1997 level, to stand at 9.76 billion bushels. Only the 10.1 billion bushels harvested in 1994 provided a better production total. Furthermore, corn yields increased 7.7 bushels to 134.4 bushels per acre. Total wheat and rice harvests also rose, gaining 2.8 percent and 3.0 percent respectively. However, while wheat yields rose a healthy 9.4 percent to 43.2 bushels per acre, rice yields fell 3.9 percent to 5,669 pounds per acre, due to cold and wet springtime weather.

Prices were further influenced by the Asian financial crisis, which, beginning in the latter half of 1997 and continuing through all of 1998, stifled demand for U.S. exports of corn and wheat. Devalued foreign currencies compounded this problem by giving foreign-grown grains and feeds a competi-

tive price advantage. Wheat ended the year at an index level not seen since 1990, while corn prices closed the year at their lowest level since 1987.

Soybean prices fell 21.3 percent in 1998, after moving up 1.8 percent in 1997. Domestically, soybean production totaled 2.76 billion bushels in 1998, up 3.0 percent from 1997. The 1998 harvest was the largest on record, with the 1997 crop being the second largest harvest to date. Yield per acre stood at 38.9 bushels, the same as in 1997. Only the 41.4 bushels per acre recorded in 1994 was more productive. As with corn and wheat, foreign trade in soybeans was dominated by the Asian financial crisis and its related effects.

With corn, wheat, and soybean prices all in decline, it comes as no surprise that the index for prepared animal feeds also fell precipitously during 1998. Prices fell 20.4 percent, after registering a modest 3.1-percent decrease in the prior year. This was the third largest calendar-year decline on record, behind a 20.7-percent drop in 1955 and a 25.6-percent decrease in 1948. Falling prices for prepared animal feeds helped livestock farmers, who, in 1998, suffered from a market collapse of their own.

Slaughter livestock and meats. After a much ballyhooed year for hog farmers in 1996, slaughter-hog and pork prices began deteriorating in the latter half of 1997 and continued in a downward spiral throughout 1998. During the spike in prices in 1996, many hog farmers expanded their existing herds, and many others entered the market. The resulting increase in production combined with a slowdown in foreign demand (particularly from East Asia) caused slaughter-hog and pork prices to plummet. The index for slaughter hogs declined 76.8 percent in 1998, leaving it at an unprecedented low. The Department of Agriculture estimated yearend slaughter hog prices to be \$17.05 per hundredweight, a 60-year low. (The break-even price is considered to be roughly \$35.85 per hundredweight.)

In much the same manner, pork prices fell 27.3 percent in 1998, following a 13.6-percent drop in 1997. This decrease in pork prices is the largest calendar-year decline on record, and the fourth largest declining 12-month rate of change observed by the PPI. The current market for slaughter hogs and pork, however, has not resulted in a mass exodus of producers. Instead, cautious optimism arose in the industry, with a general feeling that slaughter hog and pork prices could sink no further, and that a resurgence in the market was therefore inevitable.

During the latter half of 1997 and much of 1998, the Nation's red-meat pipeline was glutted with supply. Low feed costs resulted in record weights for slaughter cattle. Prices for beef, however, fell well below expectations. In the spring of 1998, demand for beef products increased just before the summer grilling season hit its peak. Prices began to track downward in late summer and early autumn, however, primarily because of plummeting prices for pork, a product often substituted for beef.

The year ended mixed—the index for slaughter cattle was 12.0 percent below its level in the previous year, but beef and veal prices were down only 2.7 percent, after registering a 5.4-percent drop in 1997.

Prices for slaughter poultry trended upward in 1998, mainly on the strength of rising prices for slaughter broilers and fryers and for slaughter turkeys. The index for processed young chickens also rose, but turkey-meat prices declined 1.8 percent. Strong domestic demand for breast meat from both food-service outlets and retail food markets helped prices recover from steep declines in 1997. Demand from Russia, particularly for dark meat, lifted prices early in the year. Russia alone accounted for 40 percent of total U.S. chicken exports in 1998. However, the Russian currency crisis of late August left these buyers unable to continue purchasing at their earlier levels. Thus, the slaughter and processed poultry indexes ended the year on a down note.

Fluid milk and dairy products. The index for fluid milk surged 25.6 percent in 1998. Among its component indexes, milk eligible for fluid use jumped 25.1 percent, after posting a 2.3-percent rise in 1997, and prices for manufacturing-grade milk rose 33.3 percent, following a 12.1-percent increase in 1997. Prices for dairy products also rose considerably, advancing 10.7 percent in 1998, after increasing 4.7 percent in the previous year. Inclement weather during the spring and summer months, particularly in the western dairy States, was cited as the driving force behind this run up. Poor weather conditions stressed dairy cattle and increased incidences of udder inflammation, which ultimately translated into higher prices for packaged fluid milk products, as well as for commodities high in butterfat, such as cheese and ice cream. Butter prices were severely influenced, surging 73.8 percent from December 1997 through September 1998. In response, many buyers left the market, resulting in the butter index plummeting 45.7 percent, ending the year 5.7 percent below its 1997 level.

Energy

The PPI for crude energy materials fell 23.8 percent during 1998, following a similarly large drop in 1997. (See table 5.) Prices declined across the board for crude-stage fossil fuels. Prices for crude petroleum decreased 48.6 percent in 1998, following a 28.3-percent decrease in the previous year. Worldwide, crude-oil production remained more than ample, while pockets of economic slowdown, particularly in Asia, limited global demand for crude oil and refined petroleum products. By yearend, the PPI for crude petroleum stood at a level not seen since 1974.

The index for coal declined 1.2 percent in 1998, after advancing 4.9 percent in 1997, when the supply of coal had been disrupted during parts of the year by railroad-related prob-

Table 5. Annual percent changes in Producer Price Indexes for selected energy items, 1994–98

Index	1994	1995	1996	1997	1998
Finished energy goods	3.5	1.1	11.7	-6.4	-11.7
Gasoline	11.2	2.4	27.1	-15.0	-33.1
Home heating oil	6.9	11.9	25.0	-21.7	-36.1
Residential electric power ...	1.5	.9	.6	-.2	-2.5
Residential natural gas	-2.6	-2.4	11.2	2.4	-2.4
Intermediate energy goods ...	2.9	1.1	11.2	-7.0	-12.1
Natural gas to electric utilities	3.4	-1.4	6.1	9.3	-24.3
Diesel fuels	5.9	11.1	26.2	-22.5	-33.8
Jet fuels	4.3	6.1	26.1	-22.3	-35.8
Commercial electric power ...	2.3	.6	-.1	.0	-1.8
Liquefied petroleum gas	13.0	3.9	71.4	-29.3	-32.6
Residual fuels	10.2	-4.7	32.8	-7.6	-39.8
Crude energy materials	-.1	3.7	51.2	-23.1	-23.8
Natural gas	-14.0	-.3	92.0	-27.9	-17.8
Crude petroleum	21.1	10.8	35.8	-28.3	-48.6
Coal	-2.1	-.8	-1.1	4.9	-1.2

lems. According to the Energy Information Administration, domestic coal production increased 2.6 percent in 1998, while coal imports increased 16.0 percent. After posting a 27.9-percent drop in the prior year, the natural gas index fell 17.8 percent in 1998, as underground natural gas storage levels rose 8.0 percent, following already plentiful levels in 1997.⁴

The PPI for intermediate energy goods decreased 12.1 percent in 1998, after registering a 7.0-percent decrease in 1997. Gasoline prices fell 33.1 percent, following a 15.0-percent drop a year earlier. For most of the year, total domestic-refinery gasoline production combined with imports outweighed total domestic demand. Other refined petroleum products—jet fuel, kerosene, diesel, and residual fuels—also fell at a faster rate during 1998. The same trend held true for the natural gas sector, where the index for liquefied petroleum gas showed an accelerating rate of decline, while prices for industrial natural gas, natural gas to electric utilities, and commercial natural gas all fell, after rising in 1997. Falling prices for extracted natural gas were a major contributor to this movement. In all, prices for diesel fuel and liquefied petroleum gas finished 1998 at levels not seen since the latter half of the 1980s. Prices for gasoline, kerosene, and jet fuels ended the year at their lowest levels in more than 20 years. In addition, the index for industrial electric power fell 1.3 percent in 1998, following a 0.5-percent rise in the previous year. Commercial electric power prices fell 1.8 percent, after showing no change in 1997. Falling prices for power-generating fossil fuels and increased competition among electricity providers helped push prices lower.

The PPI for finished energy goods declined 11.7 percent in 1998, after posting a 6.4-percent decline in 1997. As in the intermediate stage-of-processing level, the primary cause of this accelerating rate of decline was falling gasoline prices. In addition, the index for residential electric power fell 2.5 percent, after a 0.2-percent drop in 1997. (Residential electric power

is the most heavily weighted item in both finished energy goods and finished goods as a whole.) Prices for home heating oil fell 36.1 percent in 1998, following a 21.7-percent drop a year earlier. By year's end, prices for home heating oil had reached a 12-year low. Prices for residential natural gas decreased 2.4 percent, following a 2.4-percent advance in 1997. Lower input costs and favorable weather conditions in many parts of the country during the heating and cooling seasons were widely cited as helping to keep household energy prices in check.

Intermediate industrial materials

The PPI for intermediate materials other than foods and energy declined 1.6 percent during 1998. This, after registering a 0.3-percent rise in 1997. Leading the way were steadily falling prices for materials for nondurable manufacturing, which had increased modestly in 1997. After showing no change in 1997, prices for materials for durable manufacturing also declined. The index for materials and components for construction rose at a much slower rate in 1998 than in 1997. (See table 6.)

Nondurable manufacturing materials. The index for nondurable manufacturing materials dropped 5.3 percent in 1998, after registering a 0.3-percent rise during 1997. Not since 1951, when this index closed the calendar year down 6.1 percent, has the nondurable manufacturing materials index fallen at such a steep rate for a calendar year. (In publication since 1947, this index had its fastest rate of decline in 1949, falling 8.9 percent.) Throughout 1998, prices for nondurable manufacturing materials declined every month. Three commodity sectors accounted for more than three-fourths of the 1998 downturn: pulp and paper products (excluding building products), industrial chemicals, and plastic resins and materials.

In the pulp and paper sector, paperboard prices declined 8.0 percent, after posting a 5.8-percent advance a year earlier. Writing and printing grade paper prices also turned down, showing a 7.0-percent drop, after a 3.4-percent rise in the previous year. The index for newsprint rose less in 1998 than in 1997. The price of woodpulp—a material input to paper and paperboard production—declined 12.5 percent in 1998, after a 4.1-percent gain in the prior year. In addition, prices for wastepaper and pulpwood—basic industrial materials that are inputs to paper and paperboard—also fell in 1998, after rising in 1997.

Looking to other BLS data relating to the paper and allied products sector, import prices for paper, paperboard, and articles of paper pulp, paper, and board fell 2.7 percent in 1998, while export prices fell 4.5 percent.⁵ Also, data published by the Federal Reserve Board indicated that industrial production of paper and allied products fell roughly 1.0 percent in 1998, following increases of 3.3 percent in 1997 and 5.1 per-

cent in 1996.⁶ In all, ample supplies of material inputs, production overcapacity, soft foreign market demand, and low-priced imports left pulp and paper products (excluding building products) in decline almost every month during 1998.

The index for industrial chemicals decreased 5.7 percent in 1998, after registering a modest 1.1-percent decrease a year earlier. This steepening rate of decline was led by falling prices for primary basic organic chemicals. Petroleum refinery outputs, such as ethylene and benzene, led the way, dropping 27.3 percent and 19.0 percent, respectively. Both indexes showed much smaller declines the previous year. Also contributing to this price deceleration were falling prices for basic inorganic chemicals. The chlorine index fell 57.0 percent, after a 15.0-percent rise in 1997.

Within plastic resins and materials, prices for thermoplastic resins decreased 15.6 percent, after posting a 3.3-percent decrease a year earlier. For comparison, BLS reported declining import prices in 1998 for organic chemicals, inorganic chemicals, plastic resins and materials, and plastic products. Except for inorganic chemicals, export prices for each of these products also fell.⁷ Falling prices for crude petroleum, combined with economic downturn abroad, have been widely cited as contributing to excess worldwide supplies and falling prices for industrial chemicals and plastic resins and materials, as well as for plastic products and other synthetics manufactured from these chemical materials.

Other indexes contributing to the overall downturn in materials for nondurable manufacturing prices include inedible fats and oils, gray fabrics, and synthetic fibers. By contrast, prices for

Table 6. Annual percent change in Producer Price Indexes for selected intermediate and crude materials other than foods and energy, 1994-98

Index	1994	1995	1996	1997	1998
Intermediate goods other than foods and energy	5.2	3.2	-0.9	0.3	-1.6
Nondurable manufacturing materials	10.4	5.9	-3.3	.3	-5.3
Inedible fats and oils	48.0	-3.9	2.1	3.8	-22.8
Woodpulp	38.1	40.7	-33.0	4.1	-12.5
Basic organic chemicals ..	15.7	.4	3.6	-1.7	-6.4
Durable manufacturing materials	9.8	1.1	-1.4	.0	-5.5
Copper	68.2	-.1	-22.9	-22.8	-17.7
Aluminum	64.4	-7.3	-12.8	12.4	-17.5
Lead	37.5	9.1	4.2	-4.0	-6.3
Zinc	13.1	-5.7	-1.4	2.7	-10.0
Construction materials	3.9	1.9	1.8	1.2	.1
Gypsum products	30.8	1.0	6.6	7.1	7.3
Nonferrous wire and cable	13.8	1.6	-3.1	-2.2	-4.6
Softwood lumber	-9.6	-10.3	19.6	-3.8	-10.1
Crude nonfood materials less energy	17.3	-4.2	-5.5	.0	-16.0
Wastepaper	179.6	-50.9	-1.3	11.6	-28.9
Nonferrous scrap	70.3	-10.3	-7.9	-.6	-24.8
Raw cotton	34.9	4.2	-13.0	-11.2	-8.0
Sand and gravel	2.3	3.6	1.9	1.8	3.5

phosphates, stemmed and redried tobacco, and for cotton broadwoven fabric rose slightly, after falling modestly in the prior year.

Durable manufacturing materials. The PPI for durable manufacturing materials declined 5.5 percent in 1998, after posting no change in 1997. This index, also in publication since 1947, has never before shown a calendar-year decline of this magnitude. Previously, the steepest rate of decline recorded was 4.3 percent in 1949. Nearly four-fifths of this downturn can be attributed to two related commodity areas—nonferrous metals and steel mill products.

Within nonferrous metals, prices for aluminum mill shapes fell 8.5 percent in 1998, following a 6.8-percent rise a year earlier. The indexes for copper and brass mill shapes and for nonferrous wire and cable fell more in 1998 than in 1997. Prices for nonprecious primary nonferrous metals decreased 17.4 percent, after registering a more modest 3.5-percent decrease a year earlier. This steepening rate of decline was mostly due to falling aluminum prices. Declines in the indexes for nonferrous metals were roughly consistent throughout the year, and generally were attributed to falling prices for nonferrous metal ores and nonferrous scrap (basic industrial materials). Other factors include soft foreign demand due to economic weakness abroad, excess worldwide production, and falling prices for competing imports entering the United States.

Within ferrous metals, prices for steel mill products declined 6.5 percent in 1998, following a 0.5-percent rise in 1997. Most of this downturn occurred in the latter half of the year, culminating with 1.3-, 1.4-, and 1.4-percent decreases in October, November, and December, respectively. Steel mill products finished 1998 at an index level not seen since mid-1993. Domestic steel demand remained adequate throughout the year; however, increasing amounts of low-priced imports flooded the United States at a pace that topped even the record volume of 1997.⁸

The latter half of 1998 saw Russia, Brazil, Japan, and other steel-producing nations selling their steel for very low prices. Domestic steel producers, unhappy with the pricing strategies of their foreign counterparts, began accusing foreign producers of dumping. As a result, the U.S. Department of Commerce and Russia reached an agreement in early 1999, establishing a price floor on all steel mill products entering the United States and limiting the amount of steel imported from Russia. Trade cases covering a number of steel products continue, as do discussions with other countries.

Other indexes contributing to the downturn in materials for durable manufacturing prices included both softwood lumber and hardwood lumber.

Materials and components for construction. The PPI for materials and components for construction advanced 0.1 percent in 1998, after registering a 1.2-percent gain in 1997. Prices

for softwood lumber fell 10.1 percent, following a 3.8-percent drop in 1997. The index for hardwood lumber declined 1.2 percent in 1998, after increasing 7.4 percent a year earlier. Hardwood lumber prices fell modestly but steadily throughout the year. The slide in softwood lumber troughed during the spring and summer months—the peak of the construction season. Observation suggests that both U.S. and Canadian lumber producers overestimated peak-season domestic and export demand. Reduced exports to Asia weighed heavily on this sector, leaving the North American producers with excess supply. The active domestic construction market was unable to completely make up the difference. Prices for steel mill products, paving asphalt, wiring devices, and hardwood flooring fell, after rising the year before. On the other hand, the indexes for ready-mixed concrete, unitary air conditioners, and prepared paint rose more in 1998 than in the previous year. Prices for softwood plywood, mineral wool for structural insulation, and for asphalt and tar roofing and siding products all advanced, after declining in 1997.

The index for materials and components for construction was the only major stage-of-processing category within intermediate goods to show rising prices in 1998. Low interest rates and low unemployment rates, as well as continued domestic economic expansion, have been widely cited as contributing to continued growth within the construction sector. According to the Bureau of the Census, the total value of construction put in place rose 10.1 percent in 1998 (based on current dollars, not seasonally adjusted).⁹ This advance was led by a 12.2-percent rise in residential building private construction and an 8.1-percent rise in nonresidential private construction. The value of public construction put in place rose more modestly in 1998—1.9 percent.

Basic industrial materials

The PPI for basic industrial materials—crude nonfood materials other than foods and energy—declined 16.0 percent in 1998, after posting no change in 1997. Leading the way were falling prices for scrap metal. Also contributing to this price deceleration were downturns for wastepaper; logs, bolts, timber, and pulpwood; cattle hides; and wool. As with intermediate materials, prices for basic industrial materials in 1998 were dominated by two related factors: weak demand from foreign economies due to economic stagnation and currency devaluation, and increased low-priced imports entering the United States from these same countries.

The index for iron and steel scrap declined 39.9 percent in 1998, following a 14.5-percent rise in 1997. The index for aluminum base scrap decreased 24.5 percent, after rising 9.6 percent in the prior year. Prices for copper base scrap also fell more in 1998 than in 1997. Warm weather during the early part of 1998 resulted in unexpectedly plentiful supplies of ferrous scrap. (Mild weather permits scrap-metal processing to continue unabated.) In addition, domestic manufactur-

ing activity was at its strongest during the early portion of the year, and as a result, the first part of 1998 saw a plentiful supply of prime industrial-grade scrap generated. As the year progressed, a slowdown in domestic manufacturing and steadily worsening foreign demand for U.S. scrap pinched prices even further. Late in the year, domestic markets were overwhelmed with low-priced imported pig iron, a substitute for iron and steel scrap. By yearend, the index for iron and steel scrap stood at a 12-year low, while nonferrous scrap prices stood at a 5-year low.

Also contributing to the price deceleration in basic industrial materials were downturns for wastepaper and for logs, bolts, timber, and pulpwood. As with scrap metal, prices for wastepaper spent most of 1998 in retreat. Mild winter weather conditions and lack of demand from foreign buyers left the old corrugated containers index down 55.5 percent, after it had risen 22.3 percent in 1997. Among high-grade and newsprint wastepaper, price declines were mainly due to oversupply concerns. For much the same reason, the index for mixed wastepaper rose much less in 1998 than in 1997. Compounding the situation, current production in the paper and paperboard industry stands in a state of overcapacity.

In the timber sector, prices for softwood logs fell 6.5 percent, after dropping 1.0 percent a year earlier. The index for hardwood logs declined 11.6 percent, following an 8.4-percent advance in 1997. A surge in Canadian exports—partly fueled by increased felling and partly fueled by Canadian currency devaluation relative to the U.S. dollar—amplified domestic price weakness caused by the Asian economic downturn. Pulpwood prices also fell after rising the previous year. The pulpwood index retreated mostly out of competition with wastepaper and woodpulp—substitutes with declining prices in 1998.

The index for cattle hides also contributed to the downturn in basic industrial materials, falling 22.5 percent in 1998, following a drop of 9.7 percent in 1997. Exports of hides and skins declined 25.0 percent over the year. Wool prices decreased 51.1 percent, after rising 27.9 percent in the previous year. Prices for gold ores stabilized, rising 2.1 percent, following a 21.3-percent decline in 1997. Construction-related demand helped the index for construction sand, gravel, and crushed stone rise 3.5 percent, after registering a 1.8-percent rise a year earlier. A poor-quality cotton crop in 1997 resulted in textile producers turning away from U.S.-grown cotton in favor of foreign cotton. As a result, raw cotton prices decreased 8.0 percent in 1998, although less than the 11.2-percent drop observed in 1997.

Mining and manufacturing industries

Mining. The PPI for the net output of total domestic mining industries decreased by 19.7 percent in 1998, after falling 20.2 percent the previous year. (See table 7.) This decline was mainly due to falling prices in the oil and gas extraction indus-

try—its index decreased by 25.6 percent in 1998, following a 24.6-percent decline in 1997. The index for the metal mining industry group decreased 7.1 percent, its third consecutive yearly decline. Prices received by the coal mining industry group fell 1.9 percent. However, the index for the nonmetal-

Table 7. Annual percent changes in Producer Price Indexes for the net output of major industry groups, 1994–98

Index	1994	1995	1996	1997	1998
Mining industries	-1.0	2.9	40.6	-20.2	-19.7
Metal mining	35.5	6.2	-12.7	-14.3	-7.1
Coal mining	-2.1	-8	-7	2.8	-1.9
Oil and gas extraction	-3.2	3.5	57.9	-24.6	-25.6
Mining and quarrying of nonmetallic minerals, except fuels	1.4	2.9	2.2	2.2	2.2
Manufacturing industries	2.4	3.0	2.2	-8	-9
Food and kindred products ..	-3	4.0	3.2	-9	-8
Tobacco manufactures .....	.3	3.8	3.2	9.0	44.1
Textile mill products .....	.7	2.6	1.1	.5	-1.3
Apparel and other finished products made from fabrics and similar materials .....	.4	.8	2.0	.9	.6
Lumber and wood products, except furniture	1.3	-2.6	3.0	1.3	-1.4
Furniture and fixtures	3.0	3.0	1.9	1.1	.9
Paper and allied products ..	10.7	13.1	-10.3	1.9	-2.8
Printing, publishing, and allied industries	3.8	7.0	2.4	2.6	2.3
Chemicals and allied products	7.4	6.0	1.5	.6	.4
Petroleum refining and related products	8.9	2.6	22.7	-14.5	-28.8
Rubber and miscellaneous plastic products	3.6	2.6	.1	-4	-8
Leather and leather products	2.5	1.5	1.1	1.0	-5
Stone, clay, glass, and concrete products	4.3	2.7	1.3	.9	2.0
Primary metal industries	9.3	3.2	-3.0	.7	-5.6
Fabricated metal products, except machinery and transportation equipment	2.4	3.4	.6	1.2	.5
Machinery, except electrical .....	.9	1.4	-6	-6	-6
Electrical and electronic machinery, equipment, and supplies .....	.3	.7	-7	-1.7	-7
Transportation equipment ..	2.4	2.1	.5	-1.0	.9
Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	1.2	1.5	.6	.5	.1
Miscellaneous manufacturing industries	1.6	2.0	1.4	.6	.5
Service industries					
Railroad transportation .....	.4	-3	.0	1.0	.5
Motor freight transportation and warehousing	2.7	1.7	2.4	2.1	3.0
U. S. postal service .....	.0	10.4	.0	.0	.0
Water transportation	2.5	2.4	.2	-9	2.3
Transportation by air	-3	7.4	5.9	.5	2.6
Pipelines, except natural gas	10.2	3.4	-8.8	-2.2	.5
Health services	-	3.5	1.7	1.0	1.9
Legal services	-	-	-	4.1	2.5

NOTE: Dash indicates that index is not included in estimation.

lic minerals mining industry group increased 2.2 percent, the same rate of increase observed in 1996 and 1997.

Manufacturing. The PPI for the net output of the domestic manufacturing sector moved down 0.9 percent in 1998, after posting a 0.8-percent decline in 1997. Among manufacturing industries, prices increased in the following industry groups: tobacco manufactures; printing, publishing, and allied industries; transportation equipment; nonmetallic mineral products; and furniture and fixtures. By contrast, prices declined for petroleum refining and related products, food and kindred products, paper and allied products, primary metal industries, textile mill products, and electrical and electronic machinery and equipment.

Selected services industries

Health care. Among selected services industries for which the PPI publishes data, prices for health care services rose 1.9 percent in 1998, after increasing 1.0 percent in 1997. (See table 8.) The index for offices and clinics of doctors of medicine led the way with a 2.6-percent rise, after registering a 1.2-percent gain a year earlier. Physicians continue to consolidate into larger group practices and provider networks, hoping to compete more effectively for managed-care dollars while at the same time enhancing their bargaining position.

Prices received by general medical and surgical hospitals and by specialty hospitals (except psychiatric) also rose at a faster rate. Within physician services and general medical and surgical hospitals, the most noticeable shift was an upturn in the medicare payment indexes. In general medical and surgical hospitals, price changes for the medicaid-patients indexes and for the all-other-patients indexes were much more subdued. As has been the case since 1994, when the index for skilled and intermediate care facilities first became available, its prices increased more rapidly than any other health-services index in 1998. By contrast, price increases slowed for home health care services and for medical laboratories.

Distribution. The solid U.S. economy, growing at nearly 4.0 percent annually for the second consecutive year, permitted the majority of service providers belonging to the distribution sector to receive higher prices in 1998. Of the 20 distribution-services industries for which PPI publishes price indexes, all but 4 increased prices in 1998. In 1997, 13 of 20 industries raised prices. From December 1997 to December 1998, the index for trucking, except local, rose 3.4 percent, following a 2.6-percent rise in 1997. Factors helping to firm up prices in the industry included continued consolidation in the long-haul trucking industry (which led to fewer providers) and customer demand for improved inventory control through just-in-time delivery procedures. Rising prices for household-goods carriage and general-freight trucking were most notable. In addition, al-

though prices for diesel fuel fell 33.8 percent over the course of the year, the effect on increasing prices the distribution industry was minimal. Prices in 1998 also increased in local trucking without storage.

The index for railroad line-haul operations rose 0.5 percent in 1998, after rising 1.0 percent in 1997. This modest advance reflected increased charges for trailer-on-flatcar freight shipments and passenger transportation services. Prices for non-trailer-on-flatcar freight shipments fell 0.1 percent for the year. Freight-sector performance improved markedly in 1998, after the previous year had been filled with delays and disruptions in the face of strong demand. Analysts attributed the problems to consolidations and mergers in the industry that took place in the mid-1990s. By 1998, however, intermodal volume totaled more than 8.7 million trailers and containers, a 0.9-percent increase from the previous year. In addition, total freight volume reached a record-level 1.376 trillion ton-miles, a 1.8-percent increase over the year. (Ton-miles are equal to the total shipment weight multiplied by total travel distance.) By these measures, 1998 was the most active years on record for freight transportation.

Other distribution services industries with increasing price indexes in 1998 include general warehousing and storage, foreign deep sea freight transportation, tugging and towing services, courier services (land and air), airports and airport services, and crude petroleum pipelines.

Real estate. The index for real estate agents and managers rose 2.6 percent in 1998, after rising 1.4 percent in 1997. Housing demand remained solid throughout the year, as many current owners and first-time buyers entered the market. The rate of home ownership in 1998 ended the year at 66.4 percent, its highest level since this data entered publication in 1965. Plentiful employment, rising real income, mortgage rates hovering near 6.5 to 7.0 percent, and higher limits on Federal Housing Administration loans, all helped lead to increasing home sales, as well as increasing fees for appraisals and commissions on sales.

The index for operators and lessors of nonresidential buildings rose 1.2 percent, following a 2.2-percent advance the year before. The strong economy also helped keep retail and industrial vacancies low, and these markets readily absorbed space as it became available, allowing these indexes to rise. However, the index for the operators and lessors of office property showed no change in 1998, after increasing 3.7 percent a year earlier. Expanded suburban construction led to supply concerns that vacancy rates would increase in the future. Operators and lessors responded by stabilizing commercial rental rates in an attempt to fill new and existing buildings.

Professional, scientific, and technical. The functions performed by advertising, legal, and accounting firms are required in the day-to-day operations of most companies, and

Table 8. Annual percent changes in Producer Price Indexes for the net output of selected service industries, 1994–98

SIC code	Industry	1994	1995	1996	1997	1998
Distribution						
4011	Railroads, line-haul operating .....	.4	-.3	0.0	1.0	.5
4212	Local trucking without storage	1.7	1.9	.0	2	1.7
4213	Trucking, except local	3.1	.9	3.5	2.6	3.4
4214	Local trucking with storage .....	.7	10.9	.1	.6	.5
4215	Courier services, except by air	3.8	3.3	3.0	3.8	4.2
4221	Farm product warehousing and storage .....	.6	2.2	-1.5	2.0	.6
4222	Refrigerated warehousing and storage .....	.6	1.7	.5	.1	.5
4225	General warehousing and storage	1.3	1.3	1.4	.7	2.9
4311	United States Postal Service .....	.0	10.4	.0	.0	.0
4412	Deep sea foreign transportation of freight	-3.9	.8	.7	-3.7	4.7
4424	Deep sea domestic transportation of freight	7.6	-.6	1.9	-.6	.2
4432	Freight transportation on the Great Lakes- St. Lawrence Seaway	-1.4	3.0	1.8	1.4	.8
4449	Water transportation of freight, n.e.c.	15.4	9.7	-10.1	-.4	-2.2
4491	Marine cargo handling	-.5	-.9	1.0	1.2	1.8
4492	Tugging and towing services	3.5	5.3	2.4	2.2	2.8
4513	Air courier services	1.6	1.9	4.6	-3.9	3.1
4581	Airports, flying fields, and airport services	1.1	2.2	3.8	3.0	3.0
4612	Crude petroleum pipelines	13.7	4.6	-12.4	-3.7	1.4
4613	Refined petroleum pipelines	1.8	.1	.4	1.2	-1.1
4731	Freight transportation arrangement	-	-.7	2.7	-1.4	-.6
Communications						
4813	Telephone communications, except radiotelephone ...	-	-	-.1	-.4	-1.7
4832	Radio broadcasting	6.8	5.8	10.8	3.1	.8
4841	Cable and other pay television services	-.4	3.2	5.1	4.7	3.7
Real estate						
6512	Operators and lessors of nonresidential buildings	-	-	-.6	2.2	1.2
6531	Real estate agents and managers	-	-	-.5	1.4	2.6
Professional, scientific, and technical						
7311	Advertising agencies	-	-	1.7	2.5	1.3
8111	Legal services	-	-	-	4.1	2.5
8711	Engineering design, analysis, and consulting services	-	-	-	3.1	2.9
8712	Architectural design, analysis, and consulting services	-	-	-	3.0	5.3
8721	Accounting, auditing, and bookkeeping services ...	-	-	2.8	2.1	3.0
Health care						
8011	Offices and clinics of doctors of medicine	4.1	2.9	.7	1.2	2.6
8053	Skilled and intermediate care facilities	-	5.9	5.4	4.2	4.4
8062	General medical and surgical hospitals	3.4	3.7	1.5	.5	1.3
8063	Psychiatric hospitals	4.2	.1	5.0	-6.7	.5
8069	Specialty hospitals, except psychiatric	5.2	1.8	2.9	.6	2.3
8071	Medical laboratories	-	5.2	.2	.9	.2
8082	Home health care services	-	-	-	6.2	.5
Other						
4512	Air transportation, scheduled	-.7	8.7	6.5	.9	2.5
4522	Air transportation, nonscheduled .....	.7	1.8	2.2	-1.6	2.6
4724	Travel agencies	-2.7	-6.9	2.6	1.5	-2.3
7011	Hotels and motels	1.4	4.0	4.8	4.1	4.2
7349	Building cleaning and maintenance services, n.e.c. .	-	1.6	2.0	1.4	1.1
7361	Employment agencies	-	.8	1.8	1.0	2.9
7363	Help supply services	-	3.8	1.4	1.8	2.2
7372	Prepackaged software	-	-	-	-	.9
7513	Truck rental and leasing, without drivers	2.2	3.6	-.8	.5	-.9
7514	Passenger car rental, without drivers	2.4	7.4	-5.0	13.7	-4.0

NOTE: Dashes indicate that index is not included in estimation.

professional, scientific, and technical firms from the United States maintain a worldwide client base. Domestic economic strength has served to further increase demand for activities such as advertisement creation and placement; corporate, real estate, bank-

ing and commercial-type legal counsel; as well as auditing and tax preparation and consulting. The indexes for all of these service lines increased in 1998. Prices received by establishments engaged in engineering and architecture also advanced in 1998, with strength in

the residential and commercial construction sectors contributing to this broad-based increase.

Communications. The index for cable and other pay television services rose 3.7 percent in 1998, following a 4.7-percent increase in 1997. Price increases were observed for both subscriber services and cable advertising. Subscriber cable rates, deregulated when the Telecommunications Act of 1996 was signed into law, have been on the rise. Cable systems also are permitted to pass through increased costs of programming and new capital equipment. All remaining regulation of the industry is scheduled to end in 1999. Furthermore, cable advertising rates have benefited from increased viewership—often at the expense of network broadcast television.

By contrast, the index for telephone communication (except radiotelephone) fell 1.7 percent in 1998, after posting a much smaller drop of 0.4 percent in 1997. Competition among long-distance carriers forced public-switched toll prices down a full 3.2 percent. However, the index for local service (except private lines) fell only 0.1 percent. Portions of the Telecommunications Act of 1996 were meant to increase competition and reduce prices for local telephone service, outcomes not yet realized to any substantial degree. The index for radio broadcasting increased just 0.8 percent, following a 3.1-percent rise in 1997. This slower rate of increase resulted partly from falling prices for network time sales, as well as slowing rates of increase in prices of local-station time sales.

Other service industries. The index for scheduled air transportation accelerated from 0.9 percent in 1997 to 2.5 percent in 1998. This faster rate of increase was the result of rising prices for scheduled passenger transport, which increased 2.7 percent. By contrast, the scheduled air cargo transportation index rose a modest 0.4 percent. Prices for the nonscheduled air transportation industry also rose, on the strength of an 8.3-percent jump in prices for charter services. The major factors influencing prices for air transportation services in 1998 were a robust economy—

which led to increased demand and potentially higher prices—versus declining jet-fuel costs and increased competition among producers helping to keep prices in check.

A 24.7-percent drop in the index for the arrangement of international flights led to a 2.3 percent decline in the index for travel agents. This precipitous drop was fueled by announcements by major airlines that commissions on international flights would be capped at \$100, effective November 1998. By contrast, the domestic flight portion of the airline arrangements index increased 2.8 percent.

The index for hotels and motels advanced 4.2 percent in 1998, in line with recent yearly advances. Charges for guest-room rentals rose 4.7 percent, while prices for food and beverages increased 3.3 percent. Casino gaming receipts advanced more modestly—1.0 percent. Although the supply of rooms continued to grow steadily, occupancy rates remained high. This period of economic prosperity has resulted in increased business and leisure travel, permitting the hotel and motel industry to charge higher prices.

The newly introduced index for prepackaged software increased 0.9 percent in its first year of publication. Prices rose for computer games and other prepackaged software, as well as for maintenance, documentation, training, and other software services. Falling prices were registered for applications software. Introduced in June of 1998, the index for property and casualty insurance advanced 0.1 percent during its first 6 months of publication. Advancing prices for homeowner's insurance, medical malpractice insurance, and commercial auto insurance slightly outweighed declining indexes for product liability insurance and workers' compensation insurance. In an effort to further expand PPI coverage of the service-producing sector of the economy, indexes for life insurance carriers were introduced in December 1998. In the upcoming year, BLS plans to further expand its service-producing sector coverage to include indexes for wholesale trade, retail trade, wireless telephone services, and securities brokers and dealers. □

Notes

¹ The data in this table are derived from a count of the six-digit commodity indexes contributing to each stage-of-processing category except crude energy materials, which uses the three-digit codes for coal, natural gas, and crude petroleum. Data for 1998 are preliminary, first-published values.

² *U.S. import and export price indexes, December 1998*, USDL-99-13 (U.S. Department of Labor), Jan. 15, 1999.

³ *Crop Production, 1998 Summary, January 1999*, USDA-Cr-Pr-2-1-99 (U.S. Department of Agriculture, National Agricultural Statistics), Feb. 1, 1999.

⁴ The figures on domestic coal production and imports and underground natural gas storage levels were obtained from the Energy Information Administration's website at <http://www.eia.doe.gov/> (visited July 15, 1999). For coal production and import figures, see Frederick L. Freme

and B.D. Hong, "U.S. Coal Supply and Demand: 1998 Review," at http://www.eia.doe.gov/cneaf/coal/cia/new_yr_revu/coalfeat.html (visited July 15, 1999). For natural gas figures, see *Natural Gas Monthly, June 1998* at http://www.eia.doe.gov/natural_gas/nat_frame.html (visited July 15, 1999).

⁵ *U.S. import and export prices, December 1998*.

⁶ Federal Reserve Board statistical database, on the Internet at <http://www.bog.frb.fed.us/releases/> (visited July 15, 1999).

⁷ *U.S. import and export prices, December 1998*.

⁸ *1998 Annual Statistics* (Bureau of the Census), exhibit 1, on the Internet at <http://www.census.gov/foreign-trade/www/> (visited July 15, 1999).

⁹ *Value of Construction Put in Place, December 1998*, C30/98-12 (Bureau of the Census), February 1999.