

# Inflation remained low in 1983 in face of strong recovery

*Consumer prices rose by less than 4 percent,  
about the same as in the recession year of 1982;  
producer prices of finished goods inched up  
by less than 1 percent, registering  
the lowest increase in nearly 20 years*

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Inflation in both retail and primary markets was unusually low in 1983, particularly in light of the sharp price increases recorded in most other recent years.

The 3.8-percent increase in the Consumer Price Index for All Urban Consumers (CPI-U) for 1983 compares with a 3.9-percent rise in 1982 and was the smallest December-to-December increase since the 3.4-percent rise in 1972, when price controls were in effect. Although the overall increase in 1983 was virtually the same as in 1982, the major components behaved somewhat differently as the economy recovered from the 1981–82 recession.<sup>1</sup> Larger, although still moderate, advances in the transportation and the apparel and upkeep categories offset smaller increases in all major categories of consumer spending. (See table 1.)

In 1983, the Producer Price Index (PPI) for Finished Goods moved up 0.6 percent, after climbing 3.7 percent the year before and 7.1 percent in 1981. The 1983 rise was the smallest for any year since the 0.5-percent increase between December 1963 and December 1964. The consumer foods index increased 2.2 percent in 1983, virtually the same as in the preceding year. The finished energy goods index dropped 9.0 percent over the year, after showing almost no change in 1982. After advancing 5.3 percent in 1982, prices for finished consumer goods other than foods and energy moved up 1.8 percent in 1983. Capital equipment prices rose 2.0 percent, about half as much as in 1982.

The intermediate goods index rose 1.8 percent, following

a nominal increase the preceding year, and crude material prices advanced 4.8 percent, far more than the 0.4 percent rise in 1982. Within both the intermediate and the crude goods categories in 1983, prices for foodstuffs climbed briskly, indexes for energy goods declined, and prices of other materials generally rebounded with the improvement in overall economic conditions. (See table 2.)

## **Strong economic recovery**

The low rate of inflation experienced during 1983 accompanied a vigorous economic resurgence from a period that saw virtually no net growth from late 1979 through late 1982. The upturn was paced by expanded consumer spending, facilitated by increased personal income. Encouraged by this release of pent-up consumer demand, business firms stopped liquidating their inventories during 1983 and tried to rebuild them, further stimulating the recovery. Residential housing construction registered its best year since 1978, even though the persistence of unusually high interest rates prevented a runaway boom. Spending for capital equipment lagged, as frequently happens during the early stages of a recovery; by the end of the year, however, business demand for some types of investment goods, notably computers and motor vehicles, was quite strong. Improved productivity and moderate wage increases helped to retard the growth of unit labor costs and thus contributed to keeping inflation low.

One continued relative weakness lay in foreign demand for American agricultural commodities and manufactured products. Although the value of American exports was somewhat larger at the end of 1983 than the unusually low

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level at the end of 1982, the volume of imports into this country surged during 1983. This situation reflected the sluggish state of the recovery in many industrialized and Third World countries, as well as the impact of the high level of the dollar that made some American products too expensive to compete well in foreign markets. The other side of the coin was the attractive low pricing of foreign-made goods in American markets. Prices for all goods imported by the United States averaged 2.4 percent lower in the fourth quarter of 1983 than in the corresponding quarter of the preceding year. This frequently secured a greater market share for imports and thereby exercised a powerful restraint on the ability of domestic producers to raise prices to take advantage of improved demand.

We will next examine price changes during 1983 for all major expenditure categories within the Consumer Price Index. Then we will focus on price changes for those components of the Producer Price Index which do not overlap with categories of the CPI. (Price movements for consumer energy goods—gasoline, home heating fuel, and natural gas—are discussed at both the retail and the primary market levels because of important distinctions between what affects

the CPI and what affects the PPI for those items.)

### Consumer prices: food and housing

*Food and beverages.* The food and beverage component of the Consumer Price Index rose 2.7 percent in 1983, the third consecutive small annual increase. The slowdown in food prices, which began in early 1981, predates the deceleration in the overall CPI. Those factors—meats, poultry, and fresh produce—which had contributed the most to the rapid runup of food prices prior to 1981 were largely responsible for the subsequent moderation. This moderate pattern continued through the first half of 1983.

The summer drought, however, had a differential impact on prices for meats, poultry, fresh fruits, and fresh vegetables. Supply shortages led to sharp increases in poultry, eggs, and fresh vegetable prices. Higher feed costs, however, induced owners to market their livestock sooner and resulted in further price reductions for pork and beef throughout 1983. The effect on fresh fruits was temporary as midyear price increases were followed by declines in the fall.

Other major food groups—cereal and bakery products,

**Table 1. Percent changes in selected consumer price indexes (CPI-U), 1982-83**

Index	Relative importance Dec. 1983	Percent change		Contribution		Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
		Dec. 1981 to Dec. 1982	Dec. 1982 to Dec. 1983	Dec. 1981 to Dec. 1982	Dec. 1982 to Dec. 1983	1983			
						March	June	Sept.	Dec.
All Items	100.0	3.9	3.8	100.0	100.0	1.2	5.4	4.5	4.0
Food	18.7	3.1	2.6	13.4	12.9	3.2	1.7	1.1	4.3
Commodities less food and energy	26.5	5.8	5.0	48.8	34.4	5.7	3.2	6.8	4.6
Energy	11.9	1.3	-.5	3.7	-1.5	-23.3	19.1	3.4	-1.7
Services less energy	42.9	3.4	4.8	34.1	54.2	4.3	4.8	5.2	5.3
All Items	100.0	3.9	3.8	100.0	100.0	1.2	5.4	4.5	4.0
Services	47.5	4.3	4.8	47.5	59.2	4.4	4.8	5.1	4.9
Commodities	52.4	3.6	2.9	52.5	40.8	-1.6	5.8	4.4	3.3
All Items	100.0	3.9	3.8	100.0	100.0	1.2	5.4	4.5	4.0
Food and beverages	19.8	3.2	2.7	14.4	13.9	3.3	1.9	1.1	4.3
Food at home	12.6	2.2	1.9	6.6	6.3	3.6	.6	-.4	3.7
Food away from home	6.1	5.0	4.1	6.8	6.6	2.6	4.0	4.5	5.4
Alcoholic beverages	1.1	4.0	3.4	1.0	1.0	4.4	3.6	3.7	1.8
Housing	37.6	3.6	3.5	43.5	34.8	1.8	4.6	4.3	3.5
Shelter	21.5	2.4	4.7	19.7	26.6	3.6	5.4	5.6	4.4
Renters' costs	7.0	—	5.1	—	9.3	4.5	4.8	6.8	4.3
Rent, residential <sup>1</sup>	6.0	6.6	4.9	8.7	7.6	4.9	4.0	6.2	4.2
Homeowners' costs <sup>1</sup>	13.9	—	4.5	—	16.6	3.6	5.3	5.2	3.9
Homeownership	—	1.4	—	—	9.3	3.6	1.3	—	—
Fuel and other utilities	8.2	9.7	1.8	17.3	3.9	-2.6	5.0	4.0	1.0
Household furnishings and operation	7.9	3.5	2.0	6.5	4.4	1.4	1.9	1.5	3.4
Apparel and upkeep	5.1	1.6	2.9	2.0	4.0	2.9	4.4	3.9	.6
Apparel commodities	4.4	.9	2.5	.9	2.9	2.9	4.0	3.7	-.4
Apparel services	.8	6.2	5.0	1.1	1.0	3.4	6.2	5.3	5.1
Transportation	21.8	1.7	3.9	8.6	22.4	-6.6	10.9	7.6	4.4
Private transportation	20.3	1.4	3.9	6.4	20.9	-7.1	11.2	7.7	4.5
Public transportation <sup>1</sup>	1.5	6.5	3.8	2.2	1.5	-1.2	7.8	6.1	2.6
Medical care	6.1	11.0	6.4	13.8	10.1	8.9	5.8	6.0	4.8
Medical care commodities	1.0	9.6	7.6	2.0	1.9	8.3	7.3	6.8	7.8
Medical care services	5.1	11.2	6.1	11.8	8.1	9.1	5.5	5.7	4.4
Entertainment	4.2	5.6	3.9	5.2	4.3	4.7	2.0	4.3	4.6
Other goods and services	5.2	12.1	8.0	12.6	10.5	9.8	6.7	7.4	7.9

<sup>1</sup>Not seasonally adjusted.

**Table 2. Percent changes in selected producer price indexes by stage of processing, 1982-83**

Index	Relative importance Dec. 1983	Percent change		Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
		Dec. 1981 to Dec. 1982	Dec. 1982 to Dec. 1983	March 1983	June 1983	Sept. 1983	Dec. 1983
Finished goods .....	100.0	3.7	0.6	-3.2	2.6	2.0	1.0
Finished consumer goods .....	23.9	2.1	2.2	-2.3	-9	2.5	5.4
Finished energy goods .....	11.9	-1	-9.0	-32.3	12.9	-1.3	-9.5
Finished consumer goods excluding foods and energy .....	41.8	5.3	1.8	1.0	2.2	2.7	1.2
Capital equipment .....	22.2	3.9	2.0	2.1	1.7	2.1	2.1
Intermediate materials, supplies, and components .....	100.0	2	1.8	-2.8	2.9	5.2	2.3
Intermediate foods and feeds .....	5.2	0	9.1	7.7	4.2	35.0	-5.7
Intermediate energy goods .....	15.4	-7	-4.4	-27.1	6.0	5.6	2.4
Intermediate materials excluding foods and energy .....	79.3	6	2.8	1.5	2.8	3.6	3.3
Crude materials for further processing .....	100.0	4	4.8	3.2	1.1	9.9	6.2
Crude foodstuffs and feedstuffs .....	52.8	1.5	8.1	13.3	-5.8	15.6	12.4
Crude energy materials <sup>1</sup> .....	31.3	2.6	-4.6	-9.2	-5.1	-1.7	-2.1
Crude nonfood materials excluding energy .....	15.9	-7.6	15.8	-1.5	49.1	16.6	3.4

<sup>1</sup>Not seasonally adjusted.

NOTE: Data reflect revisions in not seasonally adjusted indexes through September 1983, as well as the recalculation of seasonally adjusted data from January 1979 through December 1983, effective with the release of January 1984 indexes.

dairy products, processed fruits and vegetables, and other foods at home—registered very moderate increases, similar to those in 1982. The other two components of the food and beverages indexes—restaurant meals and alcoholic beverages—rose 4.1 and 3.4 percent, somewhat less than in 1982.

**Housing.** The housing index rose 3.5 percent in 1983, slightly less than in 1982. Despite the similarity, the composition of the change was notably different between 1982 and 1983. Shelter costs were up 4.7 percent, following a 2.4-percent increase in 1982. The fuels and utilities and the household furnishings and operations groups, however, both registered smaller increases in 1983. Household fuel prices went up only 0.7 percent, compared with a 10.5-percent increase in 1982. Lighter energy demand and abundant supplies were reflected in all components of household fuels. Fuel oil prices continued their downward movement, dropping 10.9 percent, compared with a decline of 0.7 percent in 1982. Natural gas prices increased 5.2 percent, after spurring 25.4 percent the year before, as the long-term take-or-pay contracts which had ballooned prices in 1982 were allowed to lapse early in 1983. With abundant and relatively cheap supplies of energy to lower the fuel costs of generating electricity, electric bills rose 3.2 percent, half the increase in 1982.

Telephone services increased 3.6 percent—down from 7.3 percent in 1982—as only moderate rate changes were made prior to the January 1, 1984, restructuring of the telephone industry. Water and sewerage maintenance charges increased 8.5 percent, compared with 9.2 percent in 1982 and 14.8 percent in 1981. Prices for household furnishings and operations went up 2.0 percent, compared with 3.5

percent in 1982. Textile housefurnishings increased 3.7 percent, while prices for television and sound equipment dropped 2.2 percent.

### Transportation and apparel

**Transportation.** The 3.9-percent rise in the transportation component in 1983 followed a 1.7-percent increase in 1982 and compared with a 10.9-percent average annual increase in the years following the first energy crisis in 1973 through 1981. A smaller decline in gasoline prices and larger increases in automobile prices were primarily responsible for the greater, but still moderate, rise in transportation costs in 1983.

After 3 years of declines, sales of new cars rose sharply in 1983. Retail prices for new vehicles rose 3.3 percent, compared with 1.5 percent in the preceding year. Prices for used cars continued to increase sharply, advancing 14.4 percent, following a 10.9-percent rise in 1982. The indexes for tires and auto finance charges registered declines in each of the past 2 years. However, auto insurance, registration, license, and inspection fees increased, as did charges for automobile maintenance and repairs.

Motor fuel prices declined an additional 1.7 percent in 1983, after dropping 6.5 percent in 1982. The 1983 decline occurred in spite of a 5-cent-a-gallon increase in the Federal excise tax imposed in April. Following 6 months of increases, declining demand for gasoline together with ample supplies led to a resumption in the fourth quarter of the pattern of dropping prices. From their peak level of March 1981, gasoline prices declined 11.0 percent. Prices for public transportation continued to decelerate for the third consecutive year and registered a modest 3.8-percent rise in 1983. Intercity bus fares were the only major exception,

advancing 7.4 percent after posting a 3.4-percent increase in 1982.

**Apparel and upkeep.** The index for apparel and upkeep advanced 2.9 percent in 1983, compared with a 1.6-percent rise in 1982. A turnaround in women's apparel prices—particularly dresses—was largely responsible for the modest acceleration. Negotiated wage increases in the women's apparel industry, which had been postponed, took effect in late 1982, followed by wage increases scheduled for 1983. In addition, an expanding economy and the recent trend for retailers to carry lower inventories meant that sales were less widespread. However, prices of apparel for men, boys, girls, and infants and toddlers decelerated over the year. Price increases of sewing materials and notions continued to ease. After registering their smallest rise in 30 years in 1982 (up 0.1 percent), footwear prices rose a modest 1.0 percent in 1983. Apparel services registered a 5.0-percent rise, following increases of 6.2 and 9.4 percent in 1982 and 1981. Increased prices for precious metals helped to induce a turnaround in the category for jewelry and luggage.

### **Health care and other expenses**

**Medical care.** The 6.4-percent advance in the cost of medical care in 1983 followed increases of 10 percent or more in each of the preceding 4 years. The smaller increase last year reflected a slowdown in prices for both medical care services and medical care commodities. Indexes for both prescription drugs and for over-the-counter drugs and medical supplies rose at a slower rate than in 1982. Hospital and medical care services other than professional services advanced 10.4 percent, compared with 12.6 percent in 1982. Charges for professional services, which had risen more slowly in 1982 than in any of the previous 9 years, moved up 7.6 percent, accelerating slightly.

**Entertainment.** Prices for entertainment, which have been decelerating yearly since 1980, rose 3.9 percent in 1983. Most of the abatement came from the slowdown of price increases for reading materials and toys, hobbies, and other entertainment goods. Within the reading material index, steep price declines for paperback books can be attributed to increased competition as more publishers entered the expanding market. The index for toys, hobbies, and other entertainment rose 1.5 percent, compared with 3.6 percent in 1982. Uncharacteristic price decreases for music equipment and photographic equipment were caused by growing competition in each market and lower prices for silver, a major raw material in film. Increases in charges for most entertainment services decelerated slightly in 1983.

**Other goods and services.** The index for other consumer goods, while posting a smaller increase in 1983 (up 8.0 percent) than in 1982 (up 12.1 percent), still registered a larger advance than any other major category. Cigarette

prices increased 10.4 percent, after rising 21.5 percent in 1982. Legislation passed in the summer of 1982, effective January 1, 1983, doubled the Federal excise tax on cigarettes, from 8 to 16 cents per pack. Sharp monthly increases were recorded from September 1982 through January 1983, as manufacturers began phasing in the effect of the tax increase immediately, apparently to avoid the impact of a large one-time increase. Further advances were reflected in 1983 as a number of States raised taxes on cigarettes, and three wholesale price increases were passed through directly to retail. The index for personal and educational expenses decelerated in 1983, but still increased at nearly a double-digit level, as increases in tuition fees moderated slightly.

### **Producer prices: energy trends**

Prices received for domestic production of energy showed widespread and substantial decreases during 1983. After relatively little net change over the course of 1982, the Producer Price Indexes for finished, intermediate, and crude energy all moved down during most of 1983. Prices for most refined petroleum products fell at double-digit rates, as the economic recovery failed to absorb enough of the worldwide surplus of oil. (Prices for major refined petroleum products and natural gas are lagged 1 month in the Producer Price Index.)

The index for finished energy goods dropped 9.0 percent between December 1982 and December 1983. Producer prices for gasoline declined 10.0 percent over the year, reflecting lower prices for both domestic and imported crude petroleum. Demand for gasoline edged up slightly from 1982 levels, and inventories remained ample. Gasoline prices fell sharply early in the year and then rebounded somewhat during the spring, as increased consumer confidence led to more leisure driving.

In a similar fashion, the index for home heating oil declined 15.8 percent, with nearly all of the decrease occurring in the first few months of 1983. Generally warm weather and conservation efforts by consumers were responsible for the weak level of demand during the year. Total demand for distillate fuel oils in 1983 was nearly identical to year-earlier levels; because commercial demand for diesel and other fuels improved with the recovery, it is evident that a reduction occurred in demand for home heating oil.

Producer prices for natural gas moved down 4.3 percent over the year, the first annual decrease in 20 years. Expanded drilling activity in recent years led to high inventory levels, as demand remained flat. Prices for natural gas imported from Canada fell particularly sharply, in reflection of the strength of the U.S. dollar in exchange markets.

The Producer Price Index for intermediate energy goods fell 4.4 percent in 1983. Prices for gasoline, kerosene, and diesel fuel plummeted in the early months of the year but turned up in most succeeding months. Jet fuel prices followed the traditional pattern of more gradual change (jet fuel prices are largely set in advance by contract); decreases

persisted through most months of the year.

Residual fuel oil prices also declined early in the year but then turned up to end the year 3.6 percent above the year-earlier level. This reflected long-term structural changes in the petroleum refining industry, which have led to the production of a smaller share of residual fuel relative to gasoline and other fuels. In particular, the cessation of the Federal entitlements program in 1981 caused the shutdown of many smaller, obsolescent refineries, which were geared to produce a relatively high proportion of residual fuel.

The index for electric power rose 1.9 percent over the year, the smallest annual increase since 1972. This largely resulted from moderation in the costs of coal, natural gas, and residual fuel oil. Weak demand led to a 6.1-percent downturn in prices for liquefied petroleum gas.

The PPI for crude energy fell 4.6 percent in 1983, after a small increase in 1982 and steep advances in each of the 3 preceding years. Prices for domestic crude petroleum fell for the second consecutive year. With the global crude oil market remaining in surplus during 1983, the Organization of Petroleum Exporting Countries (OPEC) experienced some difficulty in maintaining discipline early in the year. At the March meeting of OPEC, the benchmark price for crude oil was reduced to \$28 per barrel, after which prices stabilized. Prices for coal edged up marginally during the year, the first time since 1976 that an increase of less than 1 percent had been registered. Although electric utility demand for coal continued to be firm, the strength of the U.S. dollar contributed to a sharp drop in export sales.

### Capital equipment

Prices received by producers of capital equipment moved up 2.0 percent over the year, following an advance of 3.9 percent in 1982. This slowdown was broad-based; few types of capital equipment climbed more than in 1982, and even fewer rose more than 5 percent. The real level of expenditures on new plant and equipment was about 3.5 percent less in 1983 than the year before, which in turn was 5.5 percent below the 1981 level. Demand for new structures and machinery needed to expand capacity had generally not turned up strongly by the end of the year. Firms were usually able to meet improved demand out of existing facilities. High-technology devices for making the current level of output more efficiently were generally preferred over machinery that could be used to boost the level of production.

Prices for equipment related to energy exploration and development were particularly weak during 1983, reflecting the continued sluggishness in price movements for crude oil, as well as the downturn in natural gas prices. The deceleration in price increases for agricultural equipment (from 5.9 percent in 1982 to 2.8 percent in 1983) was in part due to the impact of Government farm programs, which induced many farmers to plant considerably less than in most other recent years. Intensified competition from imports, which accounted for more than one-third of all sales,

was a major influence in restraining price increases for machine tools, as domestic production almost sank to Depression levels. Construction machinery prices moved up 1.6 percent, only one-third as much as in 1982; foreign demand was poor, the recovery in residential construction activity leveled off by midyear, and demand for commercial structures was weak in the wake of a serious overexpansion in office building construction during the last several years in some urban areas. Prices for office and store machines and for motor vehicles also rose considerably less than in 1982, even though demand for these items was quite strong.

### Intermediate goods less foods and energy

In 1983, producer prices for intermediate goods other than foods and energy moved up 2.8 percent, compared with the slight 0.6-percent rise in the previous year. Although the economic upturn did spur price boosts for a number of products, in general those increases which did occur were moderated by persistent overcapacity in most industries. The relatively mild acceleration in 1983 was concentrated in the manufacturing materials categories, in which prices for many items rebounded after falling in the 1981-82 recession.

*Manufacturing materials.* The durable manufacturing materials index rose 4.3 percent in 1983, compared with a 1.5-percent drop in the preceding 12 months. These movements were virtually mirrored by those of the steel mill products index. The steel industry began an uncertain recovery during the year in the wake of capacity utilization rates below 40 percent, lower than at any time since the Depression. Among various types of steel mill products, there were disparities in market demand, and, consequently, in price movements. Net total 1983 shipments of steel sheet and strip jumped 24.6 percent over 1982 levels, mainly because of increased demand from automobile manufacturers. This enabled producer prices for hot rolled and cold rolled sheet and strip to rise 7.1, and 10.1 percent, respectively, over the year. Because of the generally stagnant state of the capital equipment and commercial construction sectors, 1983 shipments of hot rolled bars, plates, and structural shapes changed little from the low level of 1982, and prices moved up only 3.5 percent. At the same time, the slump in the oil exploration and drilling industry was responsible for the 35.5-percent drop in shipments of steel pipes and tubing, with prices for the overall category of steel pipes and tubing falling 3.3 percent.

Movements in nonferrous metals prices were mixed in 1983. Primary aluminum, lead, and zinc prices rebounded at double-digit rates after falling substantially the year before. Improved conditions in the transportation equipment, construction, and consumer durables sectors resulted in greater demand for aluminum. However, the markets for copper and tin were burdened with continued excess worldwide inventories as the major Third World mining countries pushed their exports to repay debts. Copper prices fell for the fourth

consecutive year, partly because of a long-term shift toward alternative materials, such as optical fibers in telecommunications and plastics in construction. Tin prices recovered only part of the losses experienced in 1982, as the U.S. Government liquidated a portion of its tin stockpiles. Precious metals prices moved down sharply as the strength of the U.S. dollar, high interest rates, and an improved inflationary outlook tarnished the speculative and investment appeal of gold and silver.

After three years of weakness, prices for hardwood lumber climbed 15.0 percent as consumer demand for furniture strengthened in line with the recovery in residential housing sales. However, flat glass prices rose only 2.1 percent, the least in 10 years, mainly because of reduced costs for natural gas, a critical input.

The index for nondurable manufacturing materials moved up 2.4 percent, after falling 3.7 percent in 1982. Although the industrial recovery stimulated demand for many materials, price increases were held in check by continued declines in world crude oil prices. The index for industrial chemicals inched up slightly after falling in 1982. Likewise, prices for plastic resins and materials turned up 5.1 percent after declining through most of 1982. Improved demand from the housing, automotive, and export markets boosted prices for certain resins considerably.

Unprocessed synthetic fiber prices edged down for the second consecutive year, largely because of reduced exports to China and flat petrochemical costs. Steady increases in raw cotton prices, however, along with higher prices for processed synthetic yarns, led to upturns in the indexes for processed yarns, gray fabrics, and finished fabrics. The economic recovery also contributed to modest price upturns for woodpulp, paper, and paperboard. Reduced oilseed harvests were responsible for sharp increases for inedible fats and oils and thus for paint materials.

*Construction materials.* Producer prices for construction materials and components moved up 3.4 percent in 1983, compared with a 1.2-percent rise in 1982. The pace of residential building activity soared early in the year and then fluctuated in the later months in response to changing prospects for the availability of mortgage credit. However, commercial construction suffered a substantial decline, partly because of an emerging surplus of office space in many cities. The number of new private housing units started in 1983 reached 1.7 million, 62 percent higher than a year before. At the same time, total real nonresidential fixed investment in structures fell 7 percent.

The surge in housing construction caused prices for softwood lumber to rise rapidly during the first half of the year. Having kept their inventories at low levels during the recession, American lumber mills responded by quickly expanding production. However, the market outlook clouded somewhat as mortgage interest rates turned up at midyear. Supplies began to exceed demand during the summer, lead-

ing to declining prices during the second half. Still, prices for softwood lumber in December 1983 were 11.8 percent higher than a year earlier, the first significant increase in 5 years. Similarly, prices for plywood moved up after falling in 1981 and 1982, and millwork prices rose more than in the previous 2 years combined.

The most dramatic price increase in the construction area was for gypsum products, prices of which surged 26.6 percent, the sharpest rise since 1978. Strong residential demand for wallboard surpassed the modest growth in output which occurred, and by autumn shortages were reported in Northeast and Southern States. The largest four firms in the gypsum industry produce nearly 80 percent of total output, and their predominance in the market enabled them to make up for previous weak profits by instituting unusually steep price increases throughout 1983.

Strong demand also led to substantial price increases for plastic construction products and structural clay products. However, declining energy prices and weak demand from the commercial construction industry were responsible for the slight price advances for concrete products and fabricated structural metal products. Similarly, reduced petroleum prices were the main reason for the 4.1-percent drop in the index for asphalt roofing.

*Other intermediate goods* Among other areas of the intermediate goods index, price increases in the range of 4 to 6 percent were recorded for several industrial products benefiting from the recovery. These included electric motors and generators, rubber hose, photographic supplies, and electronic components. In the last grouping, particularly large advances took place for tubes, relays, and certain integrated circuits which were suddenly in short supply after a long period of weak demand because of a slump in computer sales.

However, demand in agriculture-related industries weakened in 1983, as farmers cut back their crop planting under the Government's Payment-in-Kind (PIK) program. Prices for both mixed fertilizers and pesticides showed small decreases over the year.

### **Grains and feedstuffs**

The most significant determinants of 1983 price movements for grains and feedstuffs were the PIK program and the unusually hot and dry summer. These two influences overshadowed the decline in exports which continued as in other recent years. The PIK program, designed to reduce grain surpluses, had an unexpectedly high participation rate from farmers. As a result, planted acreage was well below the planned Government targets. This restricted the amount of harvested grain available for market to a greater extent than anticipated, creating large price increases early in the year. In addition, the summer drought, described as the worst in 50 years, reduced yields for most grains and feedstuffs. Only the winter wheat crop, most of which had been

harvested before the onset of the heat wave, escaped virtually unscathed.

Planted acreage for corn was down 29 percent from the previous year, the reduction triggered by the PIK program. Yields for corn were off 29 percent because of the drought. As a result, prices for corn climbed 38 percent over the year, the largest annual increase since 1973. Hard hit by the summer heat wave, soybean prices jumped 37 percent. (Soybeans were not directly affected by PIK as they were not included in that program.) Fourth-quarter prices fell when farmers, prompted by high September prices, released more of their stocks to the market. At the same time, export demand declined because of the strong dollar and a change in U.S. credit policy towards foreign purchasers, and because demand for soybean oil, an important derivative, dropped in the face of competition from Malaysian palm oil. Prices for hay soared a record 52.6 percent over the year. Hay stocks, already drawn down by a poor 1982 crop, were in high demand as animal feed during the snowy first quarter of 1983. The summer drought and the early winter storms of December had an even stronger upward impact on hay prices later in 1983.

Wheat prices rose in the first quarter because of the PIK program announcement but fell in the second quarter, with the abundant harvests for winter wheat. Because wheat can partly substitute for most other grains and feedstuffs, wheat prices were drawn up by prices for corn and soybeans in the third quarter and fell with soybean prices in October and November. Wheat prices increased again with the rising demand for animal feed in storm-plagued December, leaving the year-end price level almost unchanged from the year before.

### Price-sensitive industrial materials

The Producer Price Index for crude materials other than food and energy, which measures changes in prices of raw industrial commodities usually responsive to cyclical shifts in general economic conditions, advanced 15.8 percent from December 1982 to December 1983. This upturn followed declines of 11.4 percent in 1981 and 7.6 percent in 1982.

Prices for ferrous and aluminum base scrap soared during 1983. Demand from steel mills and aluminum mills advanced considerably, while stocks remained low as scrap-generating industrial production picked up slowly. Iron and steel scrap prices climbed 52 percent, following declines in each of the preceding 2 years. Demand for scrap is tied to manufacturers' orders for steel products, whereas supplies of scrap are determined in part by the current level of pro-

duction of finished steel products, which generates scrap. Thus, during a recovery, when production is struggling to meet manufacturers' needs, scrap supplies typically lag behind demand, which may spur large price increases. Expanded production of automobiles towards the end of 1983 increased ferrous scrap supplies, moderating price increases.

Prices for aluminum base scrap surged a record 117.6 percent. The extended period of stagnation from late 1979 to late 1982 had brought aluminum scrap prices down to extraordinarily low levels. But by the end of 1983, the recovery had returned prices to their December 1979 levels. In addition to improved domestic demand, aluminum scrap prices were supported by substantial purchases from Japan.

Copper base scrap prices advanced strongly in the first half of 1983 but fell back in the second half, ending the year unchanged following 3 years of declines. The midyear rally was largely due to speculation that the recovery would soon manifest itself in higher demand for copper products. These expectations, given some support by purchases from China, ultimately proved premature, causing prices to fall at year's end.

Prices for cattle hides, raw cotton, and crude natural rubber climbed as demand returned strongly with the recovery. Cattle hide prices, after falling in each of the preceding 3 years, were up despite increased supplies from higher slaughter rates. Prices were pulled up by demand from the apparel industry, which also boosted prices for raw cotton. Foreign and domestic demand for U.S. cotton was also bolstered by some crop damage here and abroad. Following 2 years of decline, natural rubber prices climbed nearly one-third, the largest annual advance since 1973. Demand rose with the world recovery, while production capacity declined in exporting countries.

Prices for construction sand and gravel advanced with higher demand from the construction industry. With construction demand down during the recession, sand and gravel price increases had become smaller each year from 1980 through 1982 in accord with the dwindling rate of inflation. But price increases accelerated in the latter half of 1983 as the 1982 highway construction legislation took effect and residential construction increased.

Falling prices for leaf tobacco at year's end were partly due to high inventories and a 5-percent drop in cigarette consumption. Potash prices fell in midyear following the reduced fertilizer needs of the smaller crop plantings in the spring. Prices rebounded in the fourth quarter in anticipation of larger plantings in 1984, pushing price levels higher than the year before. □

### —FOOTNOTE—

<sup>1</sup> Data for 1983 are not strictly comparable with previous years, however, because of a technical change in the treatment of homeownership. Through December 1982, the CPI-U used an asset approach to measure shelter costs of homeowners. A flow-of-services approach for that component called "rental equivalence" was introduced in January 1983. This change not only affected the manner in which homeowners' costs were measured, but

also affected the relative weighting structure. See Robert F. Gillingham and Walter Lane, "Changing the treatment of homeownership in the CPI," *Monthly Labor Review*, June 1983, and "Changing the homeownership component of the Consumer Price Index to rental equivalence," *CPI Detailed Report*, January 1983.