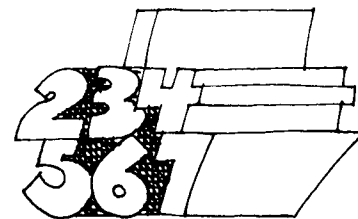


The Anatomy of Price Change



Inflation patterns in the initial stages of recovery

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The newly-modified Consumer Price Index for All Urban Consumers (CPI-U) advanced at a seasonally adjusted annual rate of 2.9 percent for the first 6 months of 1983, compared with a 3.9-percent rate during 1982.¹ Prices in the first quarter continued the general experience of the fourth quarter of 1982 with the overall price level virtually unchanged. This was followed by a moderate upswing, at an annual rate of 5.4 percent, during the second quarter. (See table 1). Energy prices have been a dominant factor in the moderation in the CPI during the economic slowdown, and this continued into the first stages of the recovery. Following a decline in the first quarter, the reversal in energy prices was largely responsible for the second quarter acceleration. The initial surge in energy prices coincided with the imposition of the 5-cent-a-gallon tax on gasoline on April 1.

During the first 6 months of the year, the Producer Price Indexes (PPI) for finished goods and for intermediate materials showed slight decreases, while that for crude materials registered a moderate increase. The difference in the annual rate during the first half of 1983 and during the 12 months ended in December 1982 for producer costs of crude materials was largely attributable to a sharp upturn in the prices of foodstuffs and feedstuffs and in nonfood materials less energy. (See table 2.) The large decrease in intermediate materials and finished goods prices in the first quarter followed a corresponding change for crude materials in the second half of 1982. As in the CPI, energy prices were a major factor in the first quarter deceleration and subsequent second quarter increase.

Energy prices fall, then spurt

Energy costs declined at a seasonally adjusted annual rate of 4.8 percent during the first half of 1983. An annual rate of decrease of 25.1 percent in the first quarter was nearly

offset by a second quarter increase at an annual rate of 21 percent. (See table 3.) This large second quarter spurt in energy costs accounted for more than 40 percent of the second quarter rise in the overall CPI. Energy prices had increased 1.3 percent during all of 1982.

The first quarter drop in energy prices was largely due to a continued abundance of crude oil supplies, as OPEC members failed until March to administer production quotas which would bring oil supply more closely in line with reduced oil demand. The slack domestic oil demand in the first quarter occurred because there was mild winter weather in the oil-consuming Northeast region and low industrial demand for energy resources during the first months of the recovery. Of the major individual components in the energy index, lower prices for fuel oil, electricity, and motor fuels were primarily responsible for the large decline in the first quarter index. These falling prices were followed by partially offsetting second quarter price increases. The only major energy component to vary from this pattern was piped gas, which posted sizable increases in both quarters.

Prices of motor fuels, which account for half of the energy index, demonstrated the most dynamic quarter-to-quarter swing. From a first-quarter plunge at a seasonally adjusted annual rate of 36.3 percent, the index jumped at a rate of 41.4 percent in the second quarter. Abundant oil supplies, which had lowered motor fuel prices 6.5 percent in 1982, continued through the first quarter of 1983. By March, the index for gasoline prices had declined to its January 1980 level.

The second quarter, however, saw the drying up of surplus oil supplies as OPEC production quotas designed to stabilize a \$29 per barrel price for crude oil took effect. Along with tightening supplies and the approach of the high-demand summer driving season, a Federal excise tax of 5 cents a gallon was imposed in April. Most refineries appear to have taken advantage of consumers' expectations of higher pump prices associated with the tax to pass on additional increases. Several States also increased their own gasoline taxes. The total increase in motor fuel prices following the imposition of the Federal excise tax was substantially larger than the 5 cents. The March to June increase in pump prices was almost 13 cents a gallon.

Household fuel prices account for the other half of the energy index. Compared with the behavior of motor fuels prices, their 8.5 percent rate of decline in the first quarter

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and 4.5 percent increase in the second quarter were decidedly less volatile. The decrease in fuel oil prices in the first quarter (43.6 percent) and the moderate drop in charges for electricity (4.1 percent) were partially offset by a 14.3-percent increase in the index for piped gas. A second quarter turnaround in the indexes for fuel oil and electricity, which were up at annual rates of 2.1 and 2.6 percent, in part, moderated another sizable increase in piped gas of 17.6 percent.

The continued climb in piped natural gas prices reflects the continuing effects of decontrol and take-or-pay contracts. However, as the result of attempted renegotiations in long-term take-or-pay contracts, the piped gas index fell four-tenths of a percent from May to June. This was the first decline in piped gas prices since August 1982.

An omen of future piped gas price changes, the PPI for natural gas decreased during the second quarter at an annual rate of 14.8 percent. Further piped gas price reductions are possible as suppliers attempt to stabilize prices to discourage users from switching to cheaper fuel oil.

Electricity rates followed the general trend of other energy prices as oil-fired plants took advantage of the lower first-

quarter fuel oil prices. As fuel oil prices increased in the second quarter, electricity rates increased at a 2.6-percent annual rate.

Increase in shelter costs

The index for services less energy rose at a 4.2-percent annual rate in the first 6 months of 1983, following a 3.4-percent rise in 1982. (See table 4.) Costs of shelter services and other household services accounted for much of the increase. The index for owners' equivalent rent, which represents the cost of shelter services of owner-occupied housing, advanced at a 4.4-percent annual rate, and the residential rent component increased at a 4.5-percent rate during the first half of the year. Other renters' costs, despite a sharp increase in charges for out-of-town lodging, registered a smaller rate of increase during the first half of 1983 than during 1982.

Among other household services, prices for maintenance and repair services accelerated from the preceding year, as increased activity in construction was accompanied by higher labor charges. Prices for telephone and water and sewage services rose sharply in the first 3 months, then moderated

Table 1. Changes in selected components of the Consumer Price Index for All Urban Consumers, 1982-83

Index	Relative importance, Dec. 1982	12-month percent change, Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted, except as noted, for 3 months ended—				Annualized effect ¹ for 3 months ended	
			1982		1983		Mar. 1983	June 1983
			Sept.	Dec.	Mar.	June		
All items	100.000	3.9	4.1	0.5	0.4	5.4	0.4	5.4
Food and beverages	20.069	3.2	.9	.9	3.0	1.9	.6	.3
Food at home	12.867	2.2	-1.8	-1.1	3.5	.3	.4	.0
Food away from home	6.097	5.0	6.2	5.0	2.2	4.4	.1	.3
Alcoholic beverages	1.106	4.0	4.3	3.5	5.2	3.6	.1	.0
Housing	37.721	3.6	3.2	-2.4	1.6	4.3	.5	1.6
Shelter	21.339	2.4	2.0	-7.2	3.9	5.3	.8	1.1
Renters' costs	6.932	(²)	(²)	(²)	4.5	4.8	.3	.3
Homeowners' costs ³	13.881	(²)	(²)	(²)	3.6	5.3	.5	.8
Maintenance and repairs ³	.526	4.2	2.8	-7	2.5	6.3	.0	.0
Fuel and other utilities	8.377	9.7	10.7	14.2	-4.8	4.2	-.4	.3
Household furnishings and operation	8.005	3.5	1.7	3.8	1.2	1.9	.1	.1
Apparel and upkeep	5.205	1.6	2.7	-.2	2.9	5.0	.1	.3
Apparel commodities	4.422	.9	2.0	-1.5	3.1	4.7	.1	.2
Apparel services	.783	6.2	7.9	6.6	2.1	6.0	.0	.0
Transportation	21.791	1.7	5.7	.3	-8.9	11.7	-2.0	2.4
Private transportation	20.250	1.4	5.5	.1	-9.6	12.0	-2.0	2.3
New vehicles	3.936	1.5	5.0	-1.0	6.6	-3.1	.2	-.1
Used cars	4.056	10.9	4.2	8.6	11.1	9.2	.4	.6
Motor fuel	6.191	-6.5	9.2	-4.8	-36.3	41.1	-2.7	2.0
Public transportation ³	1.541	6.5	9.2	2.6	-1.2	7.8	.0	.1
Medical care	5.995	11.0	11.6	10.0	8.8	5.5	.5	.3
Medical care commodities	.976	9.6	10.1	8.7	8.3	7.3	.1	.1
Medical care services	5.019	11.2	11.9	10.1	9.1	5.0	.4	.3
Entertainment	4.206	5.6	5.4	4.6	4.6	2.0	.2	.1
Other goods and services	5.014	12.1	10.3	18.4	9.1	6.8	.5	.3
All items	100.000	3.9	4.1	.5	.4	5.4	.4	5.4
Food	18.963	3.1	.6	.8	2.8	1.7	.5	.3
Energy	12.405	1.3	8.1	10.2	-25.1	21.0	-3.2	2.3
Commodities less food and energy	26.201	5.8	2.4	5.4	5.7	2.9	1.4	.8
Services less energy	42.431	3.4	4.6	-4.8	3.7	4.6	1.7	2.0
All items	100.000	3.9	4.1	.5	.4	5.4	.4	5.4
Commodities	52.908	3.6	3.2	3.0	-2.4	6.1	-1.5	3.2
Services	47.092	4.3	5.1	-2.8	3.7	4.7	1.9	2.2

¹ The amount of the "all items" percent change caused by the specific component at a compound annual rate, seasonally adjusted except as noted.

² Data are not available.

³ Data are not seasonally adjusted.

from March to June, increasing at an annual rate of 6.5 percent during the first 6 months of 1983.

The increase in charges for medical care services slowed to a 7-percent annual rate in the first 6 months of 1983, compared to 11.2 percent in 1982. The cost of hospital rooms continued to rise substantially, but at a slower rate than in the last 2 years. Charges for professional services—physician, dental, and other professional services—accelerated somewhat, increasing at an annual rate of 8.3 percent in the first half of 1983, following a 6.9-percent increase in 1982.

Among other services, the transportation service index increased at a slower rate this year than in 1982, due to larger declines in auto financing charges and a slower rate of increase in automobile registration fees and most forms of public transportation. Declining fuel costs and competition-induced discount airline fares were largely responsible for the first-quarter decline in public transportation price increases. An increase in airline fares, partially due to fewer discount fares, and a sharp jump in intercity bus fares, were responsible for the second-quarter advance of 7.8 percent. Prices for most other types of services, including entertainment, personal care, apparel, and personal and educational expenses also decelerated in the first half of 1983.

Food price increases small

For the 6 months ended in June, retail food prices increased at an annual rate of 2.2 percent. (See table 5.) Although larger than the increase during the second half of 1982, the annual rate for food price increases was still smaller

Table 2. Changes in producer prices, by stage of processing, 1982-83

Item	Relative importance Dec. 1982	12-month percent change Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
			1982		1983	
			Sept.	Dec.	Mar.	June
Finished goods	100.000	3.7	4.2	5.2	-4.7	2.9
Finished consumer goods	77.495	3.6	4.4	5.8	-6.8	3.4
Finished consumer foods	23.702	2.1	-7.7	.8	3.6	.2
Finished energy goods	13.189	-.1	30.9	7.0	-34.3	10.1
Finished consumer goods less food and energy	40.607	5.3	4.2	7.9	-2.3	2.9
Capital equipment	22.502	3.9	3.5	3.6	3.3	.8
Intermediate materials	100.000	.2	1.4	1.3	-4.4	4.1
Intermediate foods and feeds	4.802	.0	-13.7	-4.5	9.9	6.1
Intermediate energy goods	16.481	-.7	7.3	6.6	-25.7	5.3
Immediate materials less foods and energy	78.717	.6	1.0	1.0	1.1	2.5
Crude materials	100.000	.4	-12.2	1.5	3.6	5.2
Crude foodstuffs and feedstuffs	51.183	1.5	-26.4	1.3	18.1	.8
Crude energy materials ¹	34.388	2.6	8.7	6.4	-7.6	-6.5
Crude nonfood materials less energy	14.429	-7.6	2.9	-8.0	-15.7	58.5

¹ Data are not seasonally adjusted.

Table 3. Changes in consumer prices for energy-related items 1982-83

Index	Relative importance Dec. 1982	12-month percent change Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
			1982		1983	
			Sept.	Dec.	Mar.	June
Energy	12.405	1.3	8.1	10.2	-25.1	21.0
Household fuels	6.214	10.5	12.3	17.1	-8.5	4.5
Fuel oil	1.340	-7	11.6	10.6	-43.6	2.1
Electricity	2.588	6.4	5.0	8.8	-4.1	2.6
Gas (piped) ¹	2.073	25.4	17.4	27.1	14.3	17.6
Motor fuel	6.191	-6.5	9.2	-4.8	-36.3	41.1
Gasoline	-	-6.6	9.2	-5.1	-36.2	41.7

¹ Data are not seasonally adjusted.

than the rate for 1982 as a whole. Adequate to abundant supplies at the wholesale level, lower energy costs, and reduced demand contributed to the slowdown of retail food prices. All major grocery store food groups recorded small increases in the first half. At the farm level, the PPI for crude foodstuffs and feedstuffs advanced at a 9.1-percent annual rate from December to June with smaller increases reflected in the intermediate and finished consumer foods series. The second-quarter increases at all three stages of processing, however, were markedly less than during the first quarter.

Of all the major food groups, fruits and vegetables, being particularly sensitive to weather conditions, exhibited the greatest month-to-month price fluctuations. Nearly offsetting large monthly price swings resulted in a 6-month annual rate of increase of 2.7 percent. Fresh vegetable prices rose sharply during the first 6 months, at a 14-percent seasonally adjusted annual rate. Heavy rains during the winter and early spring in Florida, California, and western Mexico (an important U.S. supplier of winter and spring vegetables) disrupted planting and harvesting schedules, delayed growth, reduced yields, and damaged crops. Prices were sharply higher for potatoes and lettuce in the second quarter, while tomato prices shot up during the first quarter and then fell in the second quarter to levels substantially lower than 12 months earlier. By June, prices for most fresh vegetables had declined from their spring levels. Fresh fruit prices were down at a 4.3-percent annual rate in the first half of the year, as a large drop in the first quarter was partially offset by a small increase in the second. Unfavorable weather conditions in Central America pushed up prices for bananas, while a large Florida citrus crop kept price increases in other fresh fruits indexes small. Prices for apples, oranges, and other fresh fruits remain well below those of a year ago.

The index for meats, poultry, fish, and eggs recorded a slight increase during the first half. A sharp jump in egg prices, coupled with moderate price increases in poultry and fish and seafood, were enough to offset the declines in pork and beef prices. Ample supplies and sluggish demand resulted in a sharp drop in pork prices, while less than seasonal

increases yielded a small seasonally adjusted decrease in beef prices. Although registering a small rise during the first 6 months of 1983, poultry prices, like those of beef and pork, have declined over the past 12 months. The U.S. Department of Agriculture (USDA) estimates that red meat and pork supplies will remain well above those of a year earlier. Plentiful supplies also characterized the poultry industry, but increased feed costs and lower profitability are expected to result in monthly supplies that will be the same or slightly less than in the preceding year. Retail egg prices increased sharply in the first half, as production decreased.

Prices for dairy products have increased at a 1.6-percent annual rate, reflecting continued burdensome milk supplies during the first 6 months. Because of this oversupply, and in order to reduce price support costs to the Government, a 50-cent-per-hundredweight tax on producers of all commercial milk was implemented in April 1983. The impact of this action, combined with high feed costs and slowing gains in milk production, may increase retail prices for most dairy products later in the year.

Spurred by a stronger economy, overall per-capita food consumption is likely to rise in 1983. Despite increased demand, continuing ample supplies should yield only moderate price increases for most food items. The recently im-

Table 4. Changes in prices for consumer services, less energy, 1982-83

Index	Relative importance Dec. 1982	12-month percent change Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
			1982		1983	
			Sept.	Dec.	Mar.	June
Services less energy	42.431	3.4	4.6	-4.8	3.7	4.6
Rent of shelter ¹	20.340	(²)	(²)	(²)	4.1	5.2
Rent, residential ¹	6.029	6.6	8.0	7.1	4.9	4.0
Owners' equivalent rent ¹	13.490	(²)	(²)	(²)	3.2	5.7
Other renters' costs	.904	8.7	18.4	-2.3	.0	10.7
Household services less rent of shelter ¹	9.810	(²)	(²)	(²)	6.6	10.6
Maintenance and repair services ¹	.284	4.5	3.7	-1.2	5.8	5.3
Household insurance ¹	.391	(²)	(²)	(²)	6.1	3.6
Telephone service ¹	1.487	7.3	5.8	6.7	9.6	3.1
Water and sewage maintenance	.491	9.2	9.6	4.2	12.2	3.9
Housekeeping services ¹	2.228	2.6	2.2	2.1	1.8	2.7
Apparel services	.783	6.2	7.9	6.6	2.1	6.0
Transportation services	6.863	5.3	5.5	1.1	.3	2.3
Auto maintenance repair	1.707	6.2	6.2	3.7	2.7	4.5
Other private transportation ¹	3.615	4.4	3.7	-.7	-.4	-.9
Public transportation ¹	1.541	6.5	9.2	2.6	-1.2	7.8
Medical care services	5.019	11.2	11.9	10.1	9.1	5.0
Entertainment services ¹	1.721	6.8	8.4	5.2	6.4	4.7
Personal care services ¹	1.007	5.8	6.1	6.8	2.3	3.3
Personal and educational services	1.549	12.6	11.5	13.0	8.6	11.4

¹ Data are not seasonally adjusted.
² Data are not available.

Table 5. Changes in consumer food prices, 1982-83

Index	Relative importance Dec. 1982	12-month percent change Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
			1982		1983	
			Sept.	Dec.	Mar.	June
Food	18.963	3.1	0.6	0.8	2.8	1.7
Food at home	12.867	2.2	-1.8	-1.1	3.5	.3
Cereals and bakery products ¹	1.700	3.1	1.4	2.4	5.0	3.6
Meats, poultry, fish, and eggs	4.216	3.1	0.8	-7.0	2.5	-2.0
Dairy products ¹	1.699	.9	1.1	1.3	2.9	.3
Fruits and vegetables	1.860	.4	-15.9	2.3	3.4	2.1
Other foods at home	3.391	2.5	1.0	1.4	4.9	5
Food away from home	6.097	5.0	6.2	5.0	2.2	4.4

¹ Data are not seasonally adjusted.

plemented PIK (payment-in-kind) and other acreage reduction programs designed to reduce surplus grains and booster prices at the farm level are expected to have little or no effect through the remainder of this year, and will push up retail food prices only slightly next year, according to USDA. Because idled acres will be those that are least productive, yields per acre are likely to increase although total production is expected to decline. Estimated production declines associated with the 1983 acreage decrease are 10, 50, and 45 percent for wheat, rice, and corn. Recent drought conditions may further restrict supplies and eventually drive up grain prices.

Commodity prices decelerate

Prices for commodities excluding food and energy rose at a 4.3-percent seasonally adjusted annual rate during the first half of 1983, a notable slowdown from the 5.8-percent rate for all of 1982. A 5.7-percent increase in the first quarter slowed to a 2.9-percent rate from March to June. (See table 6.) Within this category, new cars, tobacco products, and textile housefurnishings experienced the most dramatic shift in prices from quarter to quarter, but most other commodities also slowed down during the recent quarter.

New vehicle prices increased at an annual rate of 1.6 percent during the first 6 months of the year, largely repeating the 1982 experience of 1.4 percent for the year as a whole. From December to March, prices rose 6.8 percent, then they fell 3.5 percent in the second quarter. The price hike associated with the introduction of the 1983 cars was delayed as dealers tried to move large inventories of 1982 cars in the latter part of last year. As a result, the easing of prices, which in the past occurred in February and March, did not happen, causing the large seasonally adjusted increase. On the other hand, manufacturers in the recent past have phased in introductory price increases in a quarterly basis, usually between January and April. To encourage sales, the usual April increase was deferred this year. In addition, several companies continued rebate programs, leading to a significant decrease in the second quarter.

Table 6. Changes in prices for consumer goods other than food and energy, 1982-83

Index	Relative importance Dec. 1982	12-month percent change Dec. 1981 to Dec. 1982	Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
			1982		1983	
			Sept.	Dec.	Mar.	June
Commodities less food and energy	26.201	5.8	2.4	5.4	5.7	2.9
Food and beverage:						
Alcoholic beverages	1.106	4.0	4.3	3.5	5.2	3.6
Housing:						
Maintenance and repair commodities ¹	242	3.3	- .9	1.2	-1.2	7.3
Textile housefurnishings	574	5.1	2.9	3.7	8.9	-3.0
Furniture and bedding	1,300	2.7	.8	4.2	-1.1	6.7
Appliances, including radio and t v.	1,208	2.4	.3	0	1.1	-1.3
Other household equipment ¹	1,009	3.9	-3.4	4.1	4.4	1.4
Housekeeping supplies	1,686	5.4	5.6	4.9	2.1	1.2
Apparel and upkeep:						
Apparel commodities less footwear	3,744	1.0	2.5	-1.3	3.0	5.7
Footwear . . . . .	.678	.1	- .8	-2.7	4.6	- .4
Transportation:						
New vehicles	3,936	1.5	5.0	-1.0	6.6	-3.1
Used cars	4,056	10.9	4.2	8.6	11.1	9.2
Auto parts and equipment ¹ . . . . .	.643	- .5	-8.1	.6	-2.9	-6.6
Medical care:						
Medical care commodities . . . . .	.976	9.6	10.1	8.7	8.3	7.3
Entertainment:						
Entertainment commodities	2,485	4.9	3.6	4.2	3.7	.0
Other goods and services:						
Tobacco products ¹	1,387	20.1	16.0	48.2	17.2	3.7
Toilet goods and personal care appliances ¹ . . . . .	.850	7.5	4.6	5.1	8.0	6.9
School books and supplies . . . . .	.220	11.3	13.1	6.8	11.5	12.5

¹ Data are not seasonally adjusted.

Used car prices, which increased 10.9 percent in 1982, advanced at about the same rate (10.1 percent) during the first half of 1983. Prices had soared from December 1979 to December 1981, increasing at an annual rate of nearly 20 percent, because of the robust secondary market associated with dismal performance of new car sales.

Tobacco products also showed a major deceleration of prices between the first and second quarter. The price increase, at a 3.7-percent annual rate from March to June, was significantly below the 17.2- and 48.2-percent rates recorded in the previous two quarters. Last summer, the Federal Government enacted an increase of 8 cents per pack in the Federal excise tax on cigarettes, effective January 1, 1983. Manufacturers steadily increased prices in the latter part of 1982, ostensibly to avoid a large one-time price hike, thus causing the sharp advance in the fourth quarter of last

year. With the actual imposition of the tax, a large increase was reflected early in the first quarter, with relatively moderate price increases afterwards.

Most other commodities within this grouping showed some price moderation between 1982 and the first half of 1983. The major exception was clothing prices, which rose at an annual rate of 3.9 percent in 1983, following a 0.9-percent increase in 1982. □

—FOOTNOTE—

¹ Beginning in January 1983, the CPI-U used an improved method based on rental equivalence to measure homeowners costs. The rental equivalence approach calculates homeowner costs of the shelter based on the implicit rent owners would have to pay to rent the homes they occupy. The CPI-U which used the asset approach to homeownership (old series), showed a 2.5 percent annual rate of increase after seasonal adjustment.