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Food Prices

## Food Prices

Strong consumer demand in 1988 was a major factor in price increases for some foods. The strong demand came from a robust economy and a 3-percent increase in disposable personal income after accounting for inflation. In 1988, new jobs were created in record numbers and the unemployment rate dropped to its lowest level in many years. The corresponding growth in disposable personal income stimulated demand for all goods and services, including food, thus supporting higher food prices, particularly for meats.

As measured by the Consumer Price Index (CPI), prices for all food in 1988 rose 4.1 percent above 1987 levels (table 1). Grocery store food prices increased 4.2 percent, while prices in restaurants and fast-food outlets rose 4.1 percent. The CPI for all items also rose 4.1 percent in 1988. This means that food prices kept pace with prices of other goods and services in the general economy.

The robust economy boosted food processing and marketing costs, since food companies have to compete with other businesses for basic inputs such as labor, packaging, transportation, and energy. Increases in these costs have the greatest impact on the retail prices of more highly processed foods, such as cereals and bakery products, fats and oils, and prepared foods.

While some items were not as plentiful last year as in 1987, no shortages ex-

[^0]

Table 1. Food Prices Rose 4.1 Percent in 1988

| tem | 1984 | 1985 | 1986 | 1987 | 1988 |
| :--- | :--- | :--- | :--- | :--- | :--- |


|  | Annual percent change in the |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Consumer Price Index |  |  |  |  |
| Food at home | 3.7 | 1.4 | 2.9 | 4.3 | 4.2 |
| Beef and veal | 1.2 | -2.1 | 0.6 | 7.6 | 5.5 |
| Pork | -1.3 | 0.2 | 8.2 | 8.2 | -3.0 |
| Other meats | 0.4 | 0.6 | 2.6 | 6.3 | 2.6 |
| Poultry | 10.6 | -1.0 | 7.5 | -1.4 | 7.2 |
| Fish and seafood | 3.2 | 4.9 | 9.2 | 10.6 | 5.8 |
| Eggs | 11.7 | -16.6 | 6.9 | -5.9 | 2.3 |
| Dairy products | 1.3 | 1.9 | 0.2 | 2.5 | 2.4 |
| Fresh fruit | 11.1 | 10.1 | 2.1 | 11.2 | 8.3 |
| Apples | 12.7 | 6.1 | 15.5 | 0.3 | 2.4 |
| Bananas | -7.6 | 2.1 | 5.1 | -0.8 | 14.4 |
| Oranges | 35.3 | 6.5 | -9.3 | 25.1 | 6.4 |
| Processed fruit | 7.2 | 4.1 | -2.9 | 4.0 | 10.3 |
| Fresh vegetables | 10.7 | -4.3 | 4.0 | 12.9 | 6.3 |
| Potatoes | 27.0 | -12.4 | -5.3 | 20.7 | 2.7 |
| Lettuce | -6.9 | 10.5 | 6.2 | 21.0 | 8.9 |
| Tomatoes | 4.9 | -1.9 | 7.4 | 4.9 | 5.4 |
| Processed vegetables | 4.7 | 1.1 | -0.2 | 2.8 | 4.8 |
| Fats and oils | 9.5 | 2.2 | -2.2 | 1.5 | 4.6 |
| Sugar and sweets | 3.9 | 2.5 | 3.1 | 1.8 | 2.7 |
| Cereal and bakery products | 4.4 | 3.8 | 2.8 | 3.5 | 6.4 |
| Nonalcoholic beverages | 2.5 | 2.0 | 5.9 | -2.6 | 0.0 |
|  |  |  |  |  | 4.0 |
| Food away from home | 4.2 | 4.0 | 3.9 | 4.0 | 4.1 |
| All food |  |  |  |  | 4.1 |

[^1]isted in any food category. Meat and poultry supplies hit record highs in 1988, as greater pork and poultry production more than offset smaller beef supplies. However, large supplies did not necessarily mean lower prices. Retail prices still increased for beef and poultry, reflecting strong consumer demand.

The drought of 1988 caused some increases in retail cereal and bakery prices because of higher grain prices at the farm level. But these higher retail prices also resulted from higher processing and marketing costs and strong consumer demand. Processed vegetable supplies were smaller because the drought cut production of sweet corn, snap beans, and green peas. Prices for canned vegetables increased as a result. Processed fruit prices rose sharply last year in response to smaller supplies of canned noncitrus fruits and higher world prices for frozen concentrated orange juice.

## Retail Price Components

Retail prices can be broken down into two components-farm value and farm-to-retail price spread. The farm value represents the price farmers receive for the raw-commodity equivalent of foods in the market basket. The farm-to-retail price spread is the difference between the retail price and the farm value. The price spread covers processing, distributing, and retailing costs. A related concept is the farm value share-the average percentage farmers get from each dollar consumers spend in retail foodstores.

USDA uses a market basket concept to track price changes for commodities

Table 2. In 1988, Retail Cost for the Market Basket Increased More Than the Farm Value

| Group and year | Retail cost | Farm value | Farm to retail spread | Farm value share of retail cost |
| :---: | :---: | :---: | :---: | :---: |
|  | Index, 1982-84 = 100 |  |  | Percent |
| Market basket |  |  |  |  |
| 1980 | 88.0 | 96.7 | 83.5 | 37 |
| 1987 | 111.6 | 97.1 | 119.4 | 30 |
| 1988 | 116.5 | 100.5 | 125.1 | 30 |
| Meat products |  |  |  |  |
| 1980 | 92.7 | 96.7 | 88.8 | 51 |
| 1987 | 109.6 | 101.2 | 118.3 | 47 |
| 1988 | 112.2 | 99.7 | 125.0 | 45 |
| Dairy |  |  |  |  |
| 1980 | 90.9 | 96.2 | 85.9 | 52 |
| 1987 | 105.9 | 93.3 | 117.5 | 42 |
| 1988 | 108.4 | 90.5 | 124.8 | 40 |
| Poultry |  |  |  |  |
| 1980 | 93.7 | 95.5 | 91.5 | 54 |
| 1987 | 112.6 | 93.8 | 134.2 | 45 |
| 1988 | 120.7 | 110.4 | 132.6 | 49 |
| Cereal and bakery |  |  |  |  |
| 1980 | 83.9 | 110.7 | 80.6 | 14 |
| 1987 | 114.8 | 71.0 | 120.9 | 8 |
| 1988 | 122.1 | 92.3 | 126.3 | 9 |
| Fresh fruits |  |  |  |  |
| 1980 | 79.0 | 73.4 | 81.3 | 27 |
| 1987 | 135.6 | 113.9 | 145.7 | 26 |
| 1988 | 145.4 | 113.3 | 160.2 | 25 |
| Fresh vegetables |  |  |  |  |
| 1980 | 79.0 | 73.4 | 81.3 | 27 |
| 1987 | 121.6 | 112.0 | 126.5 | 31 |
| 1988 | 129.3 | 109.5 | 139.4 | 29 |
| Processed fruits and vegetables |  |  |  |  |
| 1980 | 82.6 | 95.6 | 79.1 | 23 |
| 1987 | 109.0 | 111.1 | 108.3 | 24 |
| 1988 | 117.6 | 136.5 | 111.7 | 28 |
| Fats and oils |  |  |  |  |
| 1980 | 89.3 | 95.8 | 86.9 | 29 |
| 1987 | 108.1 | 74.1 | 120.5 | 18 |
| 1988 | 113.1 | 103.2 | 116.8 | 24 |

[^2]farmers sell and the foods consumers buy in retail foodstores. The market basket contains the average quantities of domestically produced food for at-home consumption that were purchased in 1982-84. The basket excludes fish, seafood, and nonalcoholic beverages. Changes in retail prices of the market basket are components of the CPI for foods.

In 1988, the farm value of the market basket-boosted by higher grain and cattle prices-averaged 3.5 percent above 1987, but still trailed the corresponding 4.4-percent rise in retail prices for U.S.-grown foods (table 2). The farm value of the market basket declined in 1985 and 1986. Thus, 1988's level was about the same as in the early 1980's.

The farm value of cereal and bakery products rose 30 percent in 1988, reflecting higher farm prices for food grains and vegetable oils. The farm value of fats and oils climbed 39 percent due mainly to higher prices for soybeans, the principal ingredient in cooking oils, margarine, and shortening.

Farmers received about 1.5 percent less for red meat in 1988 than in 1987 because hog prices were depressed by a 9 -percent rise in production. Cattle prices, on the other hand, rose, reflecting a small decline in per capita beef supplies coupled with strong demand. Higher producer prices for poultry and some fruits and vegetables used in processing also increased the 1988 farm value of the market basket.

The farm-to-retail price spread for the market basket rose 4.8 percent in 1988. Several factors contributed to the increase. Among these were higher input prices for the food industry, greater use
of some inputs like labor in food retailing and advertising, and larger profit margins on food sales. Handling, processing, and retailing input prices, as measured by an ERS food marketing cost index, increased an average 3 percent in 1988. The biggest contributor, food packaging materials-such as paperboard shipping boxes-rose over 6 percent. Hourly labor costs, the largest food marketing expense, increased about 2 percent.

Price spreads increased for most of the food groups in the market basket, reflecting higher costs as well as farm price variations and the normal lag in retail price adjustments. The farm-toretail spread for red meat rose about 5.7 percent, mainly reflecting a widening of the price spread for pork. The price spread for cereal and bakery products grew about 4.5 percent as 1988 retail prices for these goods rose 6.4 percent. The growth in the spread accounted for over half of the rise in retail cereal and bakery prices even though there was a large rise in farm values of food grains and other farm ingredients.

## Farm Value Share

The farm value share is computed from retail food prices and farm values of foods. Over time, this measure reflects relative changes in farm and retail food prices. In 1988, farmers received about 30 cents of each dollar consumers spent for food in retail grocery stores (table 3). The remaining 70 cents-which represents the farm-toretail price spread-paid for marketing services. The farm value share declined over the years because higher charges for marketing services drove retail food prices up.

Table 3. Farm Value Share of Retail Prices Varies Greatly Among Foods

| Item | Farm value share of the retail price |  |  |
| :---: | :---: | :---: | :---: |
|  | 1980 | 1987 | 1988 |
|  | Percent |  |  |
| Animal products |  |  |  |
| Grade A large |  |  |  |
| Choice beef, 1 lb | 61 | 57 | 58 |
| Broiler chicken, 1 lb | 54 | 52 | 56 |
| Fresh milk, $1 / 2 \mathrm{gal}$ | 53 | 49 | 46 |
| Pork, 1 lb | 45 | 44 | 38 |
| Natural cheddar cheese, 1 lb | na | 36 | 34 |
| Crops |  |  |  |
| Frozen orange juice, |  |  |  |
| Sugar, 1 lb | 40 | 35 | 37 |
| All purpose wheat flour, 5 lbs | 36 | 26 | 31 |
| Northeast potatoes, |  |  | 22 |
| Peanut butter, 1 lb | na | 26 | 26 |
| Shortening, 3 lb can | 30 | 19 | 26 |
| California oranges, |  |  |  |
| Lettuce, 1 lb | 10 | 17 | 15 |
| Margarine, 1 lb | 28 | 17 | 26 |
| Long grain rice, 1 lb | 30 | 15 | 23 |
| Frozen french fried potatoes, 1 lb | na | 12 | 11 |
| Canned tomatoes, 1 lb can | 12 | 9 | 8 |
| White bread, 1 lb | 10 | 7 | 8 |
| Average of all foods | 37 | 30 | 30 |
| na $=$ not available |  |  |  |
| Source: Food Costs ... From Farm to Retail in 1988, AIB-563, ERS, USDA, March 1989. <br> Contact: Denis Dunham (202) 786-1870. |  |  |  |

The farm value share of retail price varies greatly among foods. In general, the more highly processed the product, the smaller the farm share. For example, in 1988, farmers received 23 percent of the retail price for long grain rice, compared with only 8 percent for more highly processed white bread.

Foods from animal products tend to have a higher farm value share than those from crops. This is because farm production costs are relatively greater for animal products than crop products. Another factor is the degree of processing and packaging involved.

Other factors influencing the farm share include shipping distance between the farm and the consumer and the perishability of the product. These factors may partially explain why the farm value share is much lower for California fresh oranges than for frozen concentrated orange juice.

## Food Prices Around the World

How do food prices in the United States compare with those in other countries? According to a November 1988 survey conducted by USDA's Foreign Agricultural Service, food prices in Washington, DC, ranked eighth out of 16 capital cities. Tokyo was the most expensive, with a market basket of items costing \$144.10. Stockholm and Bern also registered above-average food prices (table 4).

Brasilia had the cheapest food prices. There the market basket cost only $\$ 27.08$. Other inexpensive cities included Pretoria, Mexico City, and Buenos Aires. Although food prices in Brasilia and Buenos Aires were comparatively low, of the 16 cities, their prices have risen the most. Since the previous survey in May 1988, prices for the market basket in the Brazilian and Argentine capitals increased 43 and 29 percent, respectively, when measured in U.S. dollars. In local currencies, the jump was even more dramatic, 366 and 147 percent.

Differences also existed among specific products. Meat prices varied more than those for other items. Sirloin steak was cheapest in Brasilia at $\$ 1.25$ a pound and most expensive in Tokyo, $\$ 25.88$ a pound. The price for pork roast was highest in Stockholm, but much cheaper in Bern and Tokyo, two other expensive capitals. Coffee prices varied widely, ranging from $\$ 1.21$ a pound in Brasilia to $\$ 11.70$ in Tokyo. Inhabitants of some capitals with otherwise lower prices, such as Pretoria and Canberra, paid higher prices for coffee. On the other hand, in Madrid, coffee was only $\$ 2.19$ a pound. Prices for more staple items-like potatoes, flour, and riceshowed much less variation.

Much of the variation in prices can be attributed to exchange rates. Food quality, packing, and seasonal availability may also play a role. Furthermore, these prices reflect purchases that are more typical of U.S. consumers than those in other capitals.

Table 4. Food Prices Varied Widely Among World Capitals in November $1988{ }^{1}$

| Item | Capital city |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Brasilia | Pretoria | Mexico City | Buenos Aires | Ottawa | Canberra | Bonn | Washington |
| Dollars per pound |  |  |  |  |  |  |  |  |
| Sirloin steak ${ }^{2}$ | 1.25 | 2.54 | 2.61 | 2.16 | 4.09 | 4.11 | 5.00 | 4.86 |
| Pork roast ${ }^{2}$ | 2.46 | 1.29 | 2.57 | 2.09 | 2.44 | 1.89 | 2.38 | 3.67 |
| Whole broilers | 0.68 | 0.86 | 0.93 | 1.05 | 1.24 | 1.69 | 1.09 | 0.85 |
| Cheese ${ }^{3}$ | 2.79 | 1.57 | 3.12 | 3.25 | 4.14 | 2.54 | 3.67 | 3.52 |
| Potatoes | 0.13 | 0.24 | 0.44 | 0.18 | 0.20 | 0.43 | 0.18 | 0.35 |
| Apples | 0.70 | 0.50 | 0.54 | 0.65 | 0.89 | 0.83 | 0.59 | 1.28 |
| Oranges | 0.20 | 0.21 | 0.14 | 0.58 | $0.81{ }^{4}$ | 0.58 | 0.74 | 0.53 |
| Flour | 0.23 | 0.22 | 0.15 | 0.33 | 0.44 | 0.46 | 0.24 | 0.29 |
| Rice | 0.25 | 0.40 | 0.19 | 0.54 | 0.87 | 0.43 | 0.95 | 0.61 |
| Sugar | 0.20 | 0.23 | 0.15 | 0.47 | 0.17 | 0.34 | 0.49 | 0.45 |
| Coffee | 1.21 | 4.01 | 1.56 | 3.18 | 3.50 | 5.74 | 4.87 | 3.38 |
| Dollars per quart |  |  |  |  |  |  |  |  |
| Whole milk | 0.37 | 0.44 | 0.29 | 0.50 | 1.02 | 0.62 | 0.60 | 0.62 |
| Cooking oil | 0.51 | 1.20 | 0.91 | 2.56 | 1.80 | 1.72 | 0.85 | 2.56 |
|  | London | Paris | Rome | Madrid | Seoul | Bern5 | Stockholm | Tokyo |
| Dollars per pound |  |  |  |  |  |  |  |  |
| Sirloin steak ${ }^{2}$ | 6.70 | 5.69 | 5.54 | 5.52 | 6.72 | 14.61 | 11.01 | 25.88 |
| Pork roast ${ }^{2}$ | 2.73 | 3.43 | 3.81 | 3.96 | 2.00 | 5.08 | 10.43 | 6.21 |
| Whole broilers | 1.37 | 2.23 | 1.71 | 1.48 | 1.33 | 1.75 | 2.79 | 2.90 |
| Cheese ${ }^{3}$ | 2.71 | 3.05 | 4.11 | 5.07 | 5.30 | 5.41 | 4.21 | 4.19 |
| Potatoes | 0.22 | 0.34 | 0.24 | 0.15 | 0.41 | 0.29 | 0.32 | 1.21 |
| Apples | 0.71 | 0.66 | 0.69 | 0.52 | 1.12 | 0.90 | 1.03 | 1.00 |
| Oranges | 1.04 | 0.74 | 0.69 | 0.44 | 0.61 | 0.66 | 0.89 | 1.32 |
| Flour | 0.29 | 0.44 | 0.25 | 0.31 | 0.18 | 0.57 | 0.54 | 0.69 |
| Rice | 0.72 | 1.10 | 0.76 | 0.73 | 0.72 | 1.18 | 1.19 | 1.37 |
| Sugar | 0.44 | 0.51 | 0.47 | 0.47 | 0.39 | 0.39 | 0.53 | 0.89 |
| Coffee | 4.55 | 3.54 | 4.00 | 2.19 | 5.10 | 4.21 | 4.26 | 11.70 |
| Dollars per quart |  |  |  |  |  |  |  |  |
| Whole milk | 0.72 | 0.74 | 0.87 | 0.79 | 0.96 | 1.05 | 0.79 | 1.44 |
| Cooking oil | 1.41 | 1.71 | 0.91 | 1.79 | 1.66 | 2.86 | 7.49 | 2.01 |

[^3]Source: World Production and Trade, WR 1-89, Foreign Agricultural Service, USDA, January 5, 1989.
Contact: Lewrene Glaser (202) 786-3313.

## Food Prices. . .At a Glance

Food prices in 1988, as measured by the Consumer Price Index (CPI), rose 4.1 percent above 1987 levels. The CPI for all items also rose 4.1 percent. Hence, food prices kept pace with the prices of all goods and services in the general economy. The drought of 1988 accounted for about 0.5 percent of the change in the CPI for food. But even with the drought, the rise in the CPI for food in 1988 equaled the 4.1 percent rise in 1987.

## Consumer Price Index for Food and All Items



The CPI for food at home represents prices paid for food in grocery stores, while the CPI for food away from home represents menu prices in restaurants and fast-food outlets. The CPI for food at home rose 4.2 percent in 1988 and the away-from-home CPI rose 4.1 percent. The price increases in both categories are very near the increase in prices of all items. Strong consumer demand, higher farm prices, and higher costs for processing and marketing foods were major factors in the rise in food prices last year. The CPI for food at home rose more than the away-from-home index for the second consecutive year. This was due to higher farm prices, which have a stronger influence on food at home than on food away from home. The farm value accounts for about 30 percent of the at-home food dollar and about 15 percent of the away-from-home food dollar.

## Consumer Price Index for Food At Home and Away

Annual percentage change


Source: Bureau of Labor Siatistics, Department of Labor.
Contact Ralph Parlett (202) 786-1870.


[^0]:    Authors Denis Dunham and Ralph Parlett are agricultural economists with the Food Marketing and Consumption Economics Branch, and author Lewrene Glaser is an agricultural econornist with the Situation and Outlook Coordination Staff, Commodity Economics Division.

[^1]:    Source: Bureau of Labor Statistics, Department of Labor.
    Contact: Ralph Parlett (202) 786-1870.

[^2]:    Contact: Denis Dunham (202) 786-1870.

[^3]:    ${ }^{1}$ Partial listing of surveyed items. Survey conducted in November 1988 by U.S. agricultural counselors or attaches. Prices are averages from randomly sampled supermarkets within each capital's metropolitan area. Exchange rates used are those that were in effect at the time the survey was conducted. ${ }^{2}$ Boneless. ${ }^{3}$ Cheddar or Emmenthaler. ${ }^{4}$ May 1988 price. ${ }^{5}$ Survey conducted in September 1988.

