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A PERSPECTIVE ON FOOD EXPENDITURES AND THE MARKETING SPREADS BETWEEN THE FARM VALUES AND RETAIL FOOD PRICES

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Both farm and food prices are the focus of public attention from time to time--when farm prices are perceived to be "too low" and when food prices are perceived to be "too high." The first situation seems to be perennial, the second only infrequently. In fact, only in the 1970's has there been, in recent history, widespread reaction by consumers to sharply rising food prices. But should this situation again develop, consumers would be quick to react as evident from the concerns raised by the 1988 drought.

Factors which affect farm prices are numerous and complex. But given the level of farm prices, the procedures for determining food prices are less of a challenge. This is because of the structure of food marketing and processing. While competitive, this sector is in a position to pass along higher raw material costs. While farm prices are highly volatile, the marketing spread between the farm and retail level is much more stable and primarily a function of the costs of providing marketing services. Even so, the marketing sector is so important in the food price picture that careful examination of this component is essential.

Description of Agriculture/Food

While international trade is becoming of increased importance in the U.S. food industry, this sector is still primarily domestic. Exports of agricultural products in recent years have represented about one-fifth and imports about one-eighth of gross farm income.

The source and composition of the U.S. food supply is shown in Table 1. In total, American consumers spent about half a trillion dollars on food and alcoholic beverages in 1986 and 1987. Of this total, nearly three-fourths was on food originating from U.S. farms. Around one-seventh was from imported food and seafood and a one-seventh from alcoholic beverages.

Of the food originating on U.S. farms, nearly 40 percent of expenditures were away from home in recent years. Of the food consumed at home, farmers received about 30 percent of the retail value. Of the food consumed away from home, the farmers' share has been about 16 percent. For food both consumed at home and away from home, the farmers' share has been about one-fourth. Considering that farmers spend about two-thirds of their gross farm income on cash expenses, the value added at the farm as a factor in total expenditures on food is about one dollar out of twelve. While farmers play a key role in the domestic food supply, their value added amounts to only about 8-9 percent of the retail value of domestically produced farm food. If you add the value of imported food, seafood and alcoholic beverages, the contribution of the American farmer to the U.S. food supply amounts to only about 6 percent.

For food consumed at home, the largest expenditure for marketing is processing, calculated at over $70 billion in recent years (Table 1). This represents about 45 percent of the total marketing bill. Second in importance is retailing at a third of the marketing bill.

For food consumed away from home, the food service sector is predominant, as would be expected. Of the total marketing bill for food consumed away from home, food service has represented 70 percent of the total for domestically produced farm food.

Trends in Total Food Expenditures and Consumer Food Prices

Another series in food expenditures tabulated by the federal government, slightly different from the data presented in Table 1, is shown in Table 2. This table compares expenditures at home and away from home with disposable personal income. Note that the proportion of disposable personal income spent on food at home declined from around 20 percent in 1929 to under 8 percent in 1987; the percent spent away from home increased from around 3.5 percent in the early part of the period to nearly 4.5 percent by 1987.

In total, U.S. consumers have been spending about 12 percent of their disposable income on food in recent years.

The Bureau of Labor Statistics compiles extensive data on consumer food prices as illustrated in Table 3. Using 1982-84 as a base, the index for recent years indicates the most rapid inflation for fish, fresh fruits and vegetables and food away from home.

Trends in Consumer Expenditures on Farm Foods

Over time, consumer expenditures on farm foods away from home have increased relative to expenditures on foods consumed at home (Table 4). In 1987, nearly 40 percent of the total of such expenditures were away from home compared to about 25 percent 25 years earlier.

Another trend has been a reduction in the share of consumer expenditures on domestic farm foods received by farmers. The farmers' share has declined from around 40 percent in the early 1950's to about 25 percent in recent years (Table 4). Not only have inflation in marketing costs and increased processing added to the margin, but also the trend to more away-from-home consumption has contributed to the marketing bill.

Total consumer expenditures on domestic farm foods by major categories are presented in Table 5. Since 1975, shares remained about the same on meat, fruits and vegetables, dairy products and grain mill products. Shares increased on poultry and declined on eggs and other foods. Note the rise and eventual decline on the farm value on bakery products, grain mill products and eggs.

The increased importance of the marketing bill in total expenditures on farm foods is illustrated in Figure 1. The allocation of the food dollar is shown in Figure 2. In addition to the 25¢ received by farmers, another 34¢ is paid to labor in the marketing bill, followed by 8¢ for packaging, etc. About 5¢ of the consumer food dollar goes for before-tax profits in marketing firms.

Historically, food retailers have earned about 1 percent profit after taxes per dollar of sales. Profits of food manufacturers have been around 3-4 percent of sales. The USDA explains this difference as follows:[1/]

> Supermarkets turn over their inventory 15 to 20 times each year, much more frequently than food processors. Although the profit on each sale is less for food retailers, there is a greater flow of products. In a year's time, the profit from each sale adds up to a total return on money invested similar to other retail businesses.
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> For the purpose of evaluating industry performance, profits as a percentage of stockholders' investment is the best measure since it can be more directly compared to other industries or financial investments. Return on equity in food retailing has averaged between 12 and 13 percent most years, but there has been considerable variation among companies. Profit rates in food manufacturing have been about a fifth higher than for food chains.

The Market Basket and Trends

The U.S. Department of Agriculture has been tabulating a series called the "market basket of farm foods." This relates to a combination of foods purchased in food stores primarily for home consumption. The weights are based on the quantities of foods purchased annually in food stores per urban household between July 1972 and June 1974. The current base period for the series is 1982-84. The index of retail prices, the farm value, farm-to-retail spread and the farm value as a share of the retail price since 1950 are presented in Table 6.

For many years, farmers received about 40 percent of the retail food store price. This share has declined to around 30 percent. While the farm-to-retail spread has increased consistently over this period, the farm value, while also increasing, has fluctuated from year to year.

[1/] Developments in Marketing Spreads for Agricultural Products in 1976, ERS, U.S. Department of Agriculture, Agricultural Economics Report No. 367, March 1977.

The market basket series on major food categories is shown for recent years in Table 7. This series is published on a monthly as well as an annual basis.[2/] Note that in recent years, the farmers' share of the food store dollar ranged from around 53-61 percent on eggs to 8-11 percent on cereals.

Individual Product Series

In addition to the general categories in the market basket series, the U.S. Department of Agriculture also collects and analyzes retail and farm price data on individual products. A set of these statistics for a recent year is included in Table 8. Consistent with the market basket series, the farmers' share ranged from 62 percent on eggs to 7 percent on white bread.

For some products such as beef, accounting has to be made for certain by-products in the process of converting a live animal to beef. A diagram of the necessary computations is given in Figure 3. For each pound of retail beef, about 2.4 pounds of live animal are required. Multiplying the liveweight price per pound in 1985 of 59.25¢ by 2.4 yields a "gross farm value" of 142.2¢. By-product values for hide, offal, fat and bone were estimated to be 15.4¢, which subtracted from the gross farm value, gave a "net farm value" of 126.8¢. The net farm value of 126.8¢ in turn, subtracted from the retail price of 232.6¢, equaled the farm-retail spread of 105.8¢. A similar computation procedure is followed on pork and other commodities where by-products are involved.

Predicting Marketing Spreads

To predict food prices, a standard procedure is to forecast farm prices in one step and the marketing spread in a second step. In Figure 4 is a derivation of per capita expenditures on food at retail and the value of these expenditures at the farm. To represent strictly price changes, the expenditures relate to a fixed bundle of food

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[2/] Agricultural Outlook, ERS, U.S. Department of Agriculture, monthly.

purchases that were average for 1982-84. Note the increased importance of the spread between the retail value and the farm value.

The spread as shown in Figure 4 was transformed into an index with 1982-84 = 100 and plotted against the Consumer Price Index, also with a base of 1982-84 = 100 (Figure 5). Note that the spread was closely correlated with the CPI. The CPI, as a proxy for the costs of marketing, provides an excellent indicator of what the farm-retail marketing spread will be. This is the case whether analyzing the total spread on food as in Figure 5 or for food at home (Figure 6) or away from home (Figure 7).

For individual commodities, such as beef and pork, the parallel movement of retail prices and farm value can be observed over time (Figures 8 and 9). On these products, too, the marketing spread is closely related to the CPI (Figures 10 and 11). However, some departures from this relationship can be noted. For this reason, other factors are involved and require attention by analysts.

To rely solely on the CPI or other single measures of inflation to forecast marketing spreads is not sufficient for a comprehensive analysis. Inclusion of wage rates and labor productivity is of particular importance because of the central role of labor costs in marketing spreads. Also, energy costs affect transportation costs in a way not reflected proportionally in the CPI. But as a rule of thumb, one can expect marketing spreads from year-to-year to increase about in line with general inflation.

In the short run, margins tend to widen when farm prices fall and tighten when prices rise. This is attributed to lags in the pricing process at retail and a general reluctance on the part of retailers to change prices frequently. Because consumers are sensitive to rising prices, retailers delay hiking prices and may hesitate lowering their prices even as farm and wholesale prices decline reasoning that retail prices would not have had to be adjusted upward with subsequent increases at wholesale.

Another phenomenon sometimes observed is that a sharp rise in farm prices may be accompanied by an increase in retail prices more than proportional to the increase at the farm level. If the rising farm prices are well known to consumers, processors and retailers can capitalize on this opportunity to adjust their margins with minimum adverse publicity. Such increases in margins may or may not be clearly justified in the short-run, but may be necessary for the firms to achieve target margins in the long-run.

The marketing spread can be considered as the equilibrium between the supply of and demand for marketing services just as we can establish an equilibrium farm price from supply and demand for farm products. The structure of food processing and marketing, however, is much different that for agricultural production. As stated in Farm-Retail Spreads for Food Products:[4/]

> Many of the larger costs in the farm-retail spread are relatively inflexible. Wages of many marketing firm employees are fixed by contracts between unions and employers and generally are not changed until leases expire. Freight rates of railroads and many motor-truck carriers and charges for electric power, telephone, telegraph, and other public utilities are fixed by Government agencies. These rates generally are changed only after applications have been made and public hearings held. All these conditions lead to less flexibility from year-to-year in farm-retail spread than in farm and retail prices.... Today's rising taxes, higher depreciation charges on plant and equipment, wage contracts and minimum wage laws all contribute to less flexibility.

The food industry is fairly competitive, but in a way different from agricultural production. The structure is such in food marketing that increased cost can be passed along to the consumer. There are no assurances of survival and the attrition of firms in food marketing is substantial. Farmers, however, are not able to directly pass along increased costs and encounter economic stress in periods of over-supply. Eventually, however, by adjusting output, farmers can collectively influence prices received. The problem arises from the fact that the adjustment does not always come quickly and a price-cost squeeze can continue for some time.

[4/] Farm-Retail Spreads for Food Products, ERS, U.S. Department of Agriculture, Miscellaneous Publication No. 741, January 1972.

Table 1. Expenditures on Food and Alcoholic Beverages in the U.S. in 1986 and 1987

	1986		1987[1/]	
	Bil. $	Bil. $	Bil. $	Bil. $
Food originating on U.S. farms[2/]				
Food consumed at home		226.0		232.3
Farm value		67.8		69.7
Marketing bill				
Processing cost	70.1		71.5	
Inter-city transportation	13.4		13.6	
Wholesaling cost	22.5		23.8	
Retailing cost	52.2		53.7	
Total		158.2		162.6
Expenditures for eating away from home		133.6		144.8
Farm value		21.3		24.2
Marketing bill				
Processing cost	20.8		22.2	
Inter-city transportation	3.4		3.6	
Wholesaling cost	8.0		8.5	
Food service cost	80.1		86.3	
Total		112.3		120.6
Total		359.6		377.1
Imported food and seafood[3/]		66.6		72.4
Alcoholic beverages[3/]				
Consumed at home	40.7		41.7	
Consumed away from home	28.9		31.2	
Total		69.6		72.9
Total		495.8		522.4

[1/] Preliminary.

[2/] Food Cost Review, 1987, Ag. Econ. Report No. 596, ERS, USDA, September 1988.

[3/] Food Consumption, Prices, Expenditures, 1966-87, Stat. Bul. 773, ERS, USDA, January 1989.

Table 2. Food Expenditures by Families and Individuals as a Share of Disposable Personal Income

Year	Disposable personal income	Expenditures for food: At home 1/	Expenditures for food: Away from home 2/	Expenditures for food: Total	Proportion of income spent for food: At home	Proportion of income spent for food: Away from home	Proportion of income spent for food: Total
	Billion dollars	Million dollars			Percent		
1929	81.7	16,918	2,617	19,535	20.7	3.2	23.9
1939	69.7	12,952	2,289	15,241	18.6	3.3	21.9
1949	187.9	33,774	7,775	41,549	18.0	4.1	22.1
1960	358.9	50,558	12,562	63,120	14.1	3.5	17.6
1961	373.8	51,069	13,100	64,169	13.7	3.5	17.2
1962	396.2	51,996	13,897	65,893	13.1	3.5	16.6
1963	415.8	52,374	14,546	66,920	12.6	3.5	16.1
1964	451.9	54,530	15,685	70,215	12.1	3.5	15.5
1965	486.8	57,382	16,946	74,328	11.8	3.5	15.3
1966	525.9	59,884	18,636	78,520	11.4	3.5	14.9
1967	562.1	60,254	19,776	80,030	10.7	3.5	14.2
1968	609.6	63,510	21,723	85,233	10.4	3.6	14.0
1969	656.7	67,956	23,362	91,318	10.3	3.6	13.9
1970	715.6	74,166	25,845	99,511	10.4	3.6	13.9
1971	776.8	78,074	26,922	104,996	10.1	3.5	13.5
1972	839.6	84,441	30,134	114,575	10.1	3.6	13.6
1973	949.8	93,133	33,483	126,616	9.8	3.5	13.3
1974	1,038.4	105,374	37,059	142,433	10.1	3.6	13.7
1975	1,142.8	115,087	44,056	159,143	10.1	3.9	13.9
1976	1,252.6	122,949	50,415	173,364	9.8	4.0	13.8
1977	1,379.3	131,616	56,143	187,759	9.5	4.1	13.6
1978	1,551.2	144,989	64,281	209,270	9.3	4.1	13.5
1979	1,729.3	161,692	73,700	235,392	9.4	4.3	13.6
1980	1,917.9	178,463	81,793	260,256	9.3	4.3	13.6
1981	2,127.6	190,317	89,858	280,175	8.9	4.2	13.2
1982	2,261.4	197,737	96,406	294,143	8.7	4.3	13.0
1983	2,428.1	208,385	105,824	314,209	8.6	4.4	12.9
1984	2,668.6	220,482	114,822	335,304	8.3	4.3	12.6
1985	2,838.7	229,859	122,411	352,270	8.1	4.3	12.4
1986	3,019.6	237,597	131,940	369,537	7.9	4.4	12.2
1987	3,209.7	245,628	142,565	388,193	7.7	4.4	12.1

1/ Food purchases from grocery stores and other retail outlets, including purchases with food stamps and food produced and consumed on farms, because the value of these foods is included in personal income. Excludes Government-donated foods. 2/ Purchases of meals and snacks by families and individuals, and food furnished employees because it is included in personal income. Excludes food paid for by government and business, such as donated foods to schools, meals in prisons and other institutions, and expense-account meals.

Table 3. Consumer Price Index for Food, Major Groups, 1966-87

Year	Food at home: Meat, poultry, and fish: Meat 1/	Poultry	Fish	Total	Eggs	Dairy products 2/	Fats and oils 3/	Fruits and vegetables: Fresh	Processed	Total	Cereals and bakery products	Sugar and sweets	Nonalcoholic beverages	Total	Food away from home	All food
	1982-84 = 100															
1966	38.2	52.4	25.6	38.1	62.4	38.3	NA	32.2	34.2	33.3	33.2	25.7	23.2	35.2	29.7	33.8
1967	37.2	49.0	26.4	37.1	52.2	39.9	37.0	32.3	34.0	33.3	34.0	26.5	23.1	35.1	31.2	34.0
1968	38.0	50.6	26.9	37.9	56.2	41.3	36.6	35.4	35.9	35.9	34.1	27.4	23.5	36.2	32.8	35.2
1969	41.5	53.4	28.4	41.1	66.1	42.6	36.8	35.9	36.2	36.3	35.1	28.9	24.1	38.0	34.8	37.1
1970	43.7	53.2	31.2	43.2	65.5	44.7	39.1	37.6	37.1	37.7	37.0	30.5	27.0	39.9	37.4	39.2
1971	43.4	53.5	34.4	43.4	56.5	46.1	42.7	39.1	39.5	39.6	38.7	31.6	28.0	40.8	39.4	40.3
1972	48.1	54.2	37.5	47.5	56.2	46.8	43.1	41.4	41.0	41.6	39.0	32.0	28.0	42.7	40.9	42.0
1973	59.9	76.0	43.1	59.6	83.6	51.1	46.7	48.8	44.3	47.4	43.4	34.0	30.0	49.6	44.1	48.1
1974	61.1	72.1	49.7	60.9	83.9	60.7	66.3	52.6	58.0	55.2	56.5	51.7	35.9	57.0	49.8	55.1
1975	66.2	79.7	53.8	66.1	82.3	62.6	73.5	53.7	60.7	56.9	62.9	65.3	41.3	61.7	54.4	59.7
1976	66.3	76.4	60.2	66.6	89.9	67.7	64.2	55.1	62.3	58.3	61.4	57.8	49.4	63.0	58.1	61.6
1977	64.9	76.9	66.6	66.2	87.0	69.5	70.8	62.6	64.3	63.7	62.4	60.8	74.4	66.8	62.5	65.5
1978	77.0	84.8	72.9	77.4	82.3	74.2	77.5	70.7	71.0	70.9	68.0	68.3	78.7	73.8	68.2	72.0
1979	90.1	89.1	80.0	88.9	90.1	82.7	83.7	76.0	77.2	76.5	74.9	73.6	82.6	81.8	75.9	79.9
1980	92.6	93.6	87.5	92.2	88.6	90.9	89.2	81.7	82.5	82.1	83.8	90.5	91.3	88.3	83.4	86.7
1981	96.0	97.4	94.7	96.0	95.8	97.4	98.8	91.6	92.4	92.0	92.2	97.6	95.2	94.8	90.9	93.5
1982	100.6	95.7	98.1	99.8	93.2	98.7	96.0	96.6	97.4	97.0	96.5	97.4	97.9	98.0	95.8	97.3
1983	99.5	96.9	99.3	99.2	97.6	99.9	97.3	96.3	98.3	97.3	99.5	99.3	99.7	99.1	99.9	99.4
1984	99.8	107.2	102.4	100.8	109.0	101.2	106.5	106.9	104.2	105.6	103.9	103.1	102.2	102.7	104.2	103.2
1985	98.8	106.2	107.5	100.5	90.9	103.1	108.9	109.7	107.0	108.4	107.9	105.7	104.2	104.2	108.3	105.5
1986	102.0	114.2	117.4	104.9	97.2	103.3	106.5	113.0	105.3	109.4	110.9	109.0	110.4	107.3	112.5	109.0
1987	109.7	112.6	129.9	111.7	91.5	105.9	108.1	126.8	108.9	119.1	114.8	111.0	107.5	111.9	117.0	113.5

NA = Not available.
1/ Beef, veal, lamb, mutton, pork, and processed meat. 2/ Includes butter. 3/ Excludes butter.

Source: Bureau of Labor Statistics.

Table 4. Marketing Bill and Farm Value Components of Consumer Expenditures for Domestically Produced Foods

Year	Consumer expenditures			Marketing bill	Farm value	Farm value share of expenditures
	Total	At home 1/	Away from home 2/			
	Billion dollars					Percent
1950	44.0	--	--	26.0	18.0	41
1951	49.2	--	--	28.7	20.5	42
1952	50.9	--	--	30.5	20.4	40
1953	51.0	--	--	31.5	19.5	38
1954	51.1	--	--	32.3	18.8	37
1955	53.1	--	--	34.4	18.7	35
1956	55.5	--	--	36.3	19.2	35
1957	58.3	--	--	37.9	20.4	35
1958	61.0	--	--	39.6	21.4	35
1959	63.6	--	--	42.4	21.2	33
1960	66.9	--	--	44.6	22.3	33
1961	68.7	--	--	45.7	23.0	33
1962	71.3	--	--	47.6	23.7	33
1963	74.0	56.0	18.0	49.9	24.1	33
1964	77.5	58.5	19.0	52.6	24.9	32
1965	81.1	60.2	20.9	54.0	27.1	33
1966	86.9	64.0	22.9	57.1	29.8	34
1967	91.6	66.8	24.8	62.4	29.2	32
1968	96.8	69.5	27.3	65.9	30.9	32
1969	102.6	73.1	29.5	68.3	34.3	33
1970	110.6	78.2	32.4	75.1	35.5	32
1971	114.6	80.6	34.0	78.5	36.1	32
1972	122.2	85.4	36.8	82.4	39.8	33
1973	138.8	98.5	40.3	87.1	51.7	37
1974	154.6	109.5	45.1	98.2	56.4	36
1975	167.0	116.2	50.8	111.4	55.6	33
1976	183.3	127.2	56.1	125.0	58.3	32
1977	190.9	130.8	60.1	132.7	58.2	30
1978	216.9	149.2	67.7	147.4	69.5	32
1979	245.2	169.4	75.8	166.0	79.2	32
1980	264.4	180.1	84.3	182.7	81.7	31
1981	287.7	194.0	93.7	204.5	83.2	29
1982	298.9	196.7	102.2	215.2	83.7	28
1983	315.0	204.6	110.4	229.3	85.7	27
1984	332.0	213.1	118.9	240.6	91.4	28
1985	345.4	220.8	124.6	257.1	88.3	26
1986	359.6	226.0	133.6	270.5	89.7	25
1987 3/	377.1	232.3	144.8	283.2	93.9	25

-- = Not available.

1/ Includes food primarily purchased at retail foodstores. 2/ Includes food purchased at restaurants, fast food outlets, and other public eating places, and food served in institutions such as hospitals, schools, and rest homes. 3/ Preliminary. Some historical data have been revised.

Table 5. Consumer Expenditures and Farm Value for Major Food Groups

Year	Meat	Fruits and vegetables 1/	Dairy products	Bakery products	Poultry	Grain mill products 2/	Eggs	Other foods 3/	Total
					Billion dollars				
Consumer expenditures:									
1975	48.0	35.6	23.3	18.2	8.6	5.9	4.1	23.3	167.0
1976	55.2	38.8	26.4	18.8	9.1	6.1	4.8	24.1	183.3
1977	59.0	40.8	27.8	18.1	9.6	6.3	4.4	24.9	190.9
1978	69.5	46.3	30.1	21.1	10.9	6.4	4.3	28.3	216.9
1979	80.2	52.5	33.5	23.8	12.6	7.8	4.8	30.1	245.3
1980	83.3	55.5	37.8	26.8	13.3	8.4	5.0	34.3	264.4
1981	86.6	62.8	41.4	29.0	14.7	8.9	5.2	39.1	287.7
1982	91.9	66.7	42.0	30.6	15.1	9.0	5.2	38.4	298.9
1983	97.9	70.0	45.0	31.0	16.3	9.6	5.4	39.8	315.0
1984	101.7	74.7	47.4	33.0	18.4	10.3	5.8	40.7	332.0
1985	103.2	78.5	49.4	34.6	19.9	10.9	6.1	42.8	345.4
1986	106.3	81.6	51.4	36.6	21.2	11.7	6.4	44.4	359.6
1987	109.9	85.7	54.0	38.9	23.3	12.0	6.7	46.6	377.1
Farm value:									
1975	20.6	8.4	10.0	3.0	4.1	1.1	2.2	6.2	55.6
1976	21.6	8.8	11.3	2.6	4.0	1.0	2.6	6.4	58.3
1977	22.0	8.6	11.5	2.3	4.2	.9	2.3	6.4	58.2
1978	28.0	10.0	12.7	2.8	5.1	1.0	2.2	7.7	69.5
1979	31.5	10.9	14.6	3.4	5.5	1.4	2.6	9.3	79.2
1980	30.8	11.7	16.0	3.5	5.9	1.6	2.5	9.8	81.7
1981	31.1	13.3	17.0	3.4	6.1	1.5	2.7	8.1	83.2
1982	31.5	13.8	16.7	3.4	6.0	1.4	2.5	8.4	83.7
1983	31.4	13.3	18.0	3.5	6.6	1.4	2.7	8.8	85.7
1984	32.4	15.1	18.1	3.7	8.0	1.4	3.0	9.7	91.4
1985	30.5	15.2	17.7	3.4	7.9	1.3	2.3	10.0	88.3
1986	30.9	14.9	17.8	2.9	9.0	1.1	2.5	10.0	89.1
1987	34.2	16.8	18.1	2.6	7.9	1.1	2.2	11.0	93.9

1/ Also includes soups, baby foods, condiments, dressings, spreads, and relishes. 2/ Includes flour, flour mixes, cereals, rice, and pasta. 3/ Includes fats and oils, sugar, tree nuts, peanuts, and miscellaneous foods.

Table 6. Indexes of Retail Price, Farm Value, and the Farm-to-Retail Price Spread and Farm Value as a Share of Retail Price 1/

Year	Retail price	Farm value	Farm-to-retail spread	Farm value share of retail price
	1982-84=100			Percent
1950	30	40	25	47
1951	33	46	26	49
1952	34	44	28	47
1953	32	41	28	45
1954	32	39	28	43
1955	31	36	29	41
1956	32	36	29	40
1957	33	37	30	40
1958	35	40	32	41
1959	34	37	32	39
1960	34	38	32	39
1961	34	37	33	39
1962	34	38	33	39
1963	34	36	33	38
1964	34	36	34	36
1965	35	40	33	38
1966	37	43	34	39
1967	37	40	35	39
1968	38	42	36	38
1969	40	46	37	39
1970	42	46	40	37
1971	43	46	41	37
1972	45	50	42	38
1973	52	68	44	44
1974	60	73	53	42
1975	64	76	58	40
1976	65	72	61	38
1977	66	72	63	37
1978	74	83	68	38
1979	82	92	77	38
1980	88	97	83	37
1981	95	99	92	36
1982	98	99	98	35
1983	99	97	100	34
1984	103	104	103	35
1985	104	96	108	32
1986	106	95	112	31
1987 2/	112	97	119	30

1/ For a market basket of foods bought in foodstores in a base period, currently 1982-84. The retail price index is derived from BLS data. Farm value is based on prices received by farmers for commodities. The spread between the retail price and farm value represents charges for processing and marketing. 2/ Preliminary.

Table 7. Farm-Retail Price Spreads

	Annual				1987	1988					
	1985	1986	1987	1988 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Market basket 1/											
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	112.7	117.3	118.4	119.5	119.3	118.9	119.5
Farm value (1982-84=100)	96.2	94.9	97.1	100.5	94.1	104.5	104.5	105.4	104.5	104.4	103.1
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.1	122.8	124.2	125.8	127.0	127.2	126.7	128.3
Farm value-retail cost (%)	32.4	31.2	30.5	30.2	29.2	31.2	30.9	30.9	30.7	30.7	30.2
Meat products											
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	110.4	113.4	113.2	113.4	113.0	113.0	112.7
Farm value (1982-84=100)	91.3	94.3	101.2	99.7	93.1	97.5	97.5	100.3	97.6	97.8	98.8
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.0	128.1	129.7	129.3	126.8	128.8	128.6	126.9
Farm value-retail cost (%)	46.8	46.8	46.7	45.0	42.7	43.6	43.6	44.8	43.7	43.8	44.4
Dairy products											
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	106.7	107.6	108.2	108.9	109.9	110.6	111.4
Farm value (1982-84=100)	95.2	92.6	93.3	90.5	92.5	88.0	88.8	89.3	92.3	96.3	98.0
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.8	119.8	125.7	126.1	127.0	126.1	123.8	123.8
Farm value-retail cost (%)	44.2	43.0	42.3	40.1	41.6	39.2	39.4	39.4	40.3	41.8	42.2
Poultry											
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	107.8	129.0	131.7	133.4	129.4	127.2	127.1
Farm value (1982-84=100)	105.9	115.1	93.8	110.4	85.1	135.5	133.8	128.4	124.8	117.9	114.4
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	133.9	121.5	129.3	139.1	134.7	137.9	141.7
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	42.3	56.2	54.4	51.5	51.6	49.6	48.2
Eggs											
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	85.5	95.1	104.2	103.1	105.5	101.2	99.6
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	66.7	84.9	86.6	97.0	87.6	89.2	90.1
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	119.2	113.4	135.9	114.1	137.6	122.8	116.7
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	50.2	57.4	53.4	60.4	53.4	56.6	58.1
Cereal & bakery products											
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	116.8	122.1	124.0	124.7	125.6	125.9	126.6
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	76.4	97.1	99.1	98.7	100.1	98.9	100.5
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	122.4	125.6	127.5	128.3	129.2	129.7	130.2
Farm value-retail cost (%)	10.7	8.4	7.6	9.2	8.0	9.7	9.8	9.7	9.8	9.6	9.7
Fresh fruits											
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	128.5	150.7	153.5	157.5	151.9	147.6	147.0
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	130.8	129.6	125.5	118.6	116.0	123.9	110.9
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	127.4	160.4	166.4	175.5	168.5	158.5	163.7
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	32.2	27.2	25.8	23.8	24.1	26.5	23.8
Fresh vegetables											
Retail costs (1982-84=100)	103.5	107.7	121.6	129.3	140.2	127.0	125.9	132.1	129.4	126.7	133.0
Farm value (1982-84=100)	93.1	90.0	112.0	109.5	113.8	112.1	121.4	125.9	127.1	118.2	101.7
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	139.4	153.8	134.7	128.2	135.3	130.6	131.1	149.1
Farm value-retail cost (%)	30.5	28.4	31.3	28.8	27.6	30.0	32.7	32.4	33.4	31.7	26.0
Processed fruits & vegetables											
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	110.0	117.8	119.2	120.4	121.4	121.9	121.9
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	127.4	139.8	140.1	142.7	145.2	145.0	136.8
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	104.6	110.9	112.7	113.4	114.0	114.7	117.2
Farm value-retail costs (%)	26.2	22.9	24.2	27.6	27.5	28.2	27.9	28.2	28.4	28.3	26.7
Fats & oils											
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	107.7	112.6	114.9	115.9	117.1	117.1	118.5
Farm value (1982-84=100)	104.3	76.2	74.1	103.2	78.9	132.9	114.7	106.1	102.5	98.9	100.4
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.8	118.3	105.1	115.0	119.5	122.5	123.8	125.2
Farm value-retail cost (%)	25.8	19.2	18.4	24.5	19.7	31.8	26.9	24.6	23.5	22.7	22.8

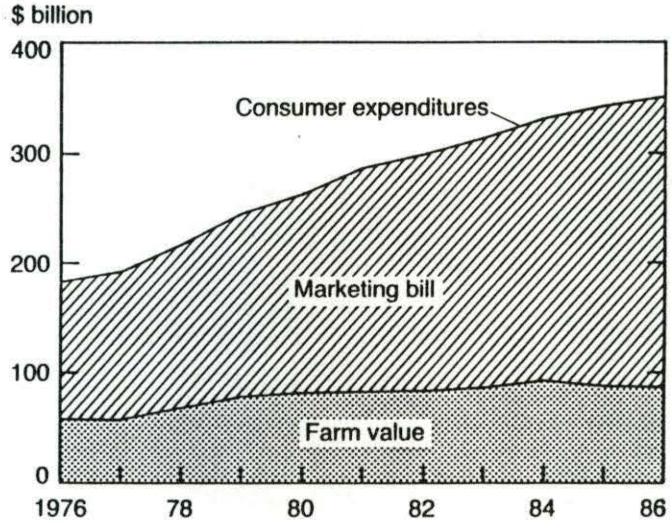
Table 8. Farm Value Share of Retail Prices of Selected Foods, 1987

Item	Retail price	Farm value	Farm-to-retail spread	Farm value share of retail price 1/
	-----------	Dollars	-----------	Percent
Eggs, Grade A large, 1 dozen	0.78	0.48	0.30	62
Choice beef, 1 lb	2.42	1.38	1.04	57
Chicken, broiler, 1 lb	.78	.41	.37	52
Milk, 1/2 gal	1.14	.56	.58	49
Pork, 1 lb	1.88	.83	1.05	44
Frozen orange juice, 12 fluid oz	1.11	.42	.69	37
Cheese, natural cheddar, 1 lb	3.06	1.10	1.96	36
Sugar, 1 lb	.34	.12	.22	35
Potatoes, Northeast, 10 lbs	2.40	.62	1.78	26
Peanut butter, 1 lb	1.80	.46	1.34	26
Flour, wheat, all purpose, 5 lbs	1.02	.27	.75	26
Shortening, 3-lb can	2.33	.44	1.89	19
Oranges, California, 1 lb	.55	.10	.45	18
Margarine, 1 lb	.69	.12	.57	17
Lettuce, 1 lb	.59	.10	.49	17
Rice, long grain, 1 lb	.40	.06	.34	15
Potatoes, frozen, french fried, 1 lb	.69	.08	.61	12
Tomatoes, 1-lb can	.51	.05	.46	9
White bread, 1 lb	.55	.04	.51	7

1/ Computed from unrounded data.

Marketing Bill, Farm Value, and Consumer Expenditures for Farm Foods

The marketing bill, the largest share of the food dollar, has risen faster than the cost of raw foodstuffs, reflecting the high cost of labor, packaging, and other inputs.

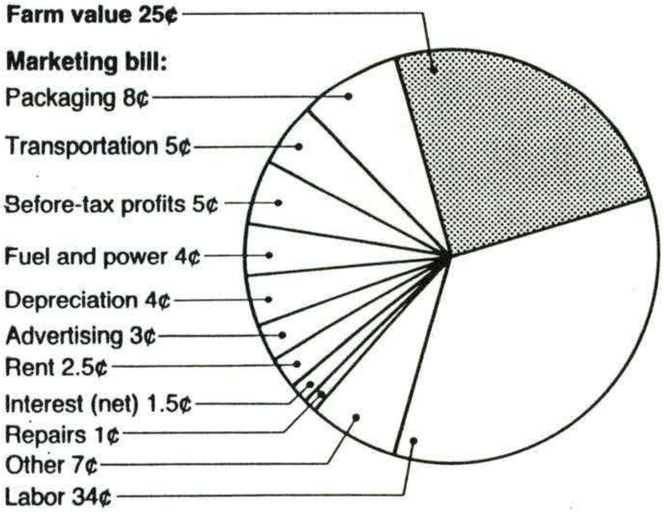


1986 forecast. Data for domestically produced farm foods purchased by civilian consumers for consumption both at home and away from home.

Figure 1

What a Dollar Spent on Food Paid for in 1985

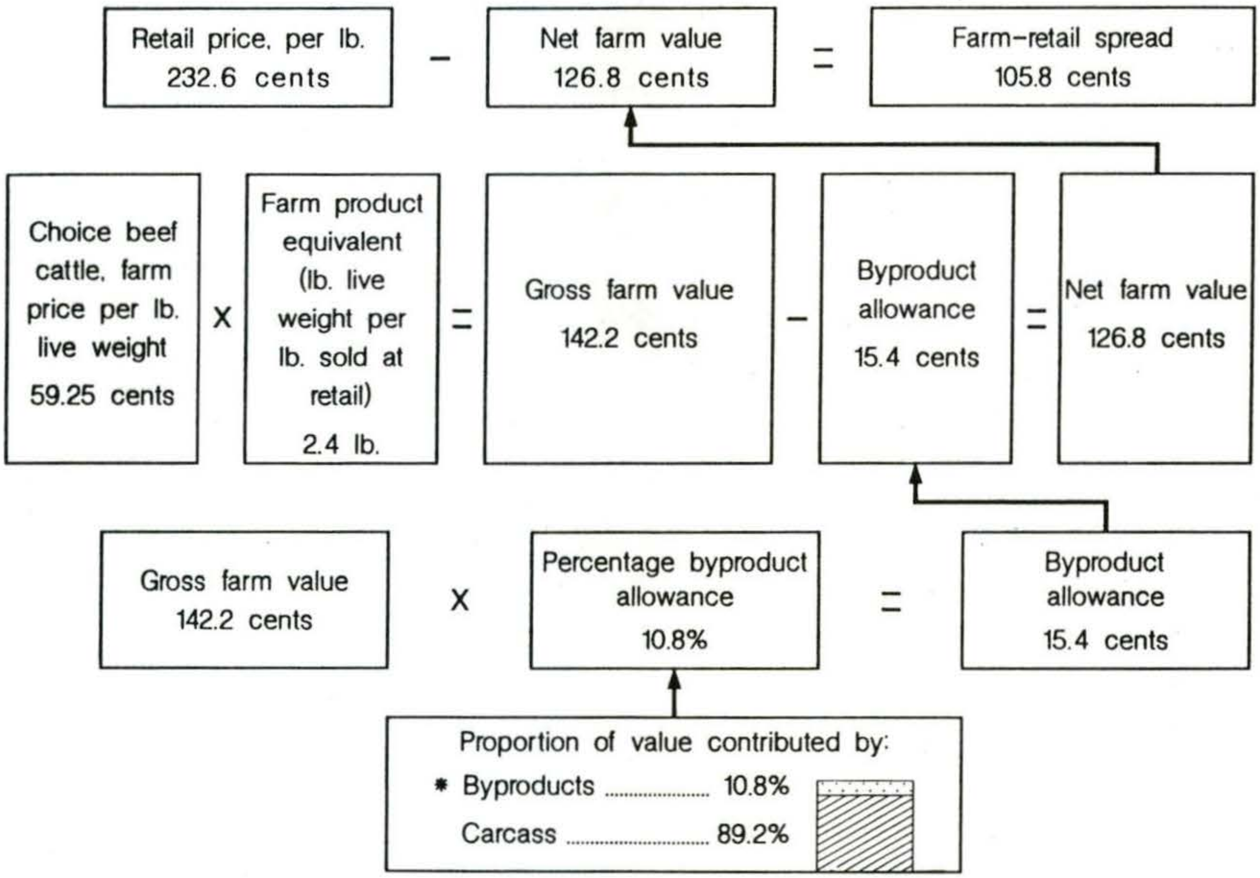
Labor accounts for just over one-third of the food dollar. About 10.8 million workers were employed in food marketing industries in 1985.



1985 preliminary. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and miscellaneous items.

Figure 2

Choice Beef: Retail Price, Farm Value, and Farm-to-Retail Spread, 1985



* Byproduct value is for hide, offal, fat, and bone.

Figure 3

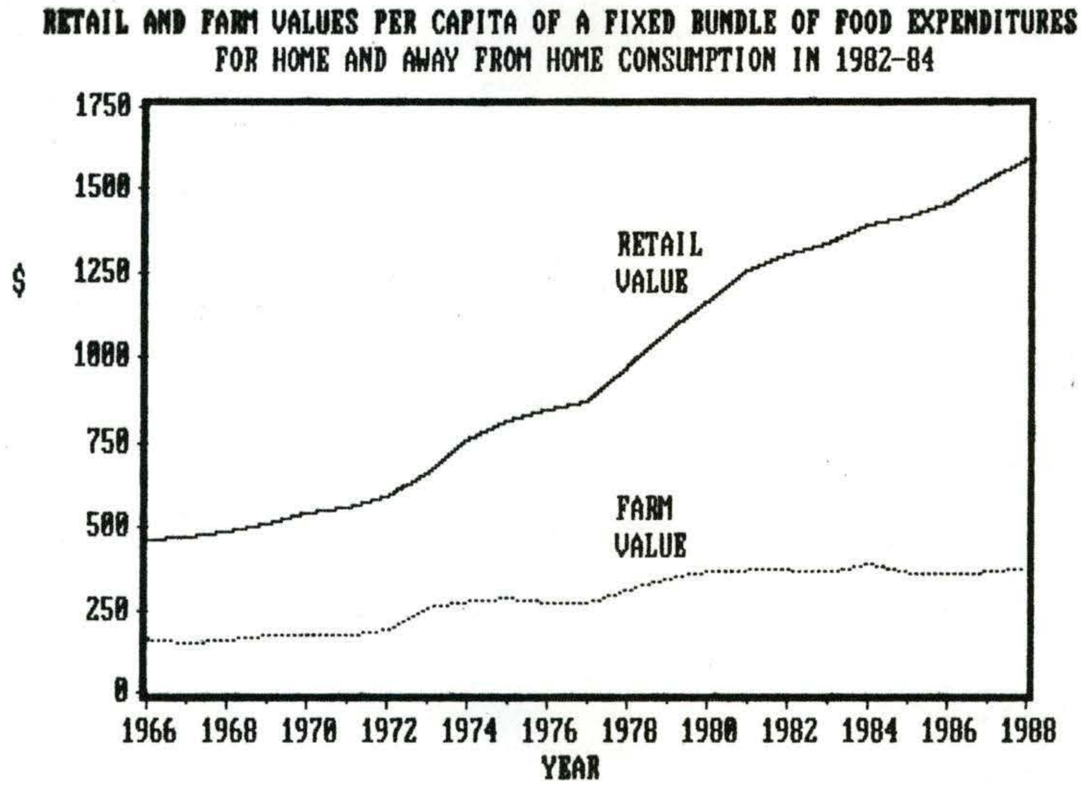


Figure 4

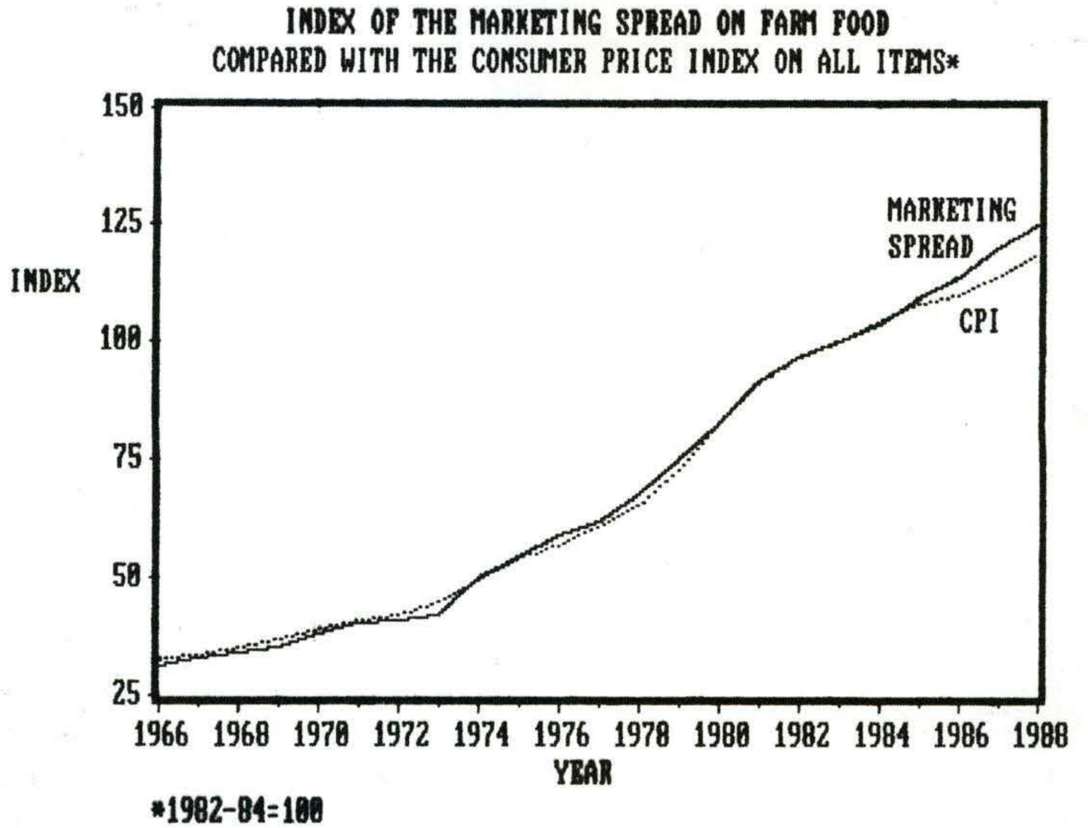


Figure 5

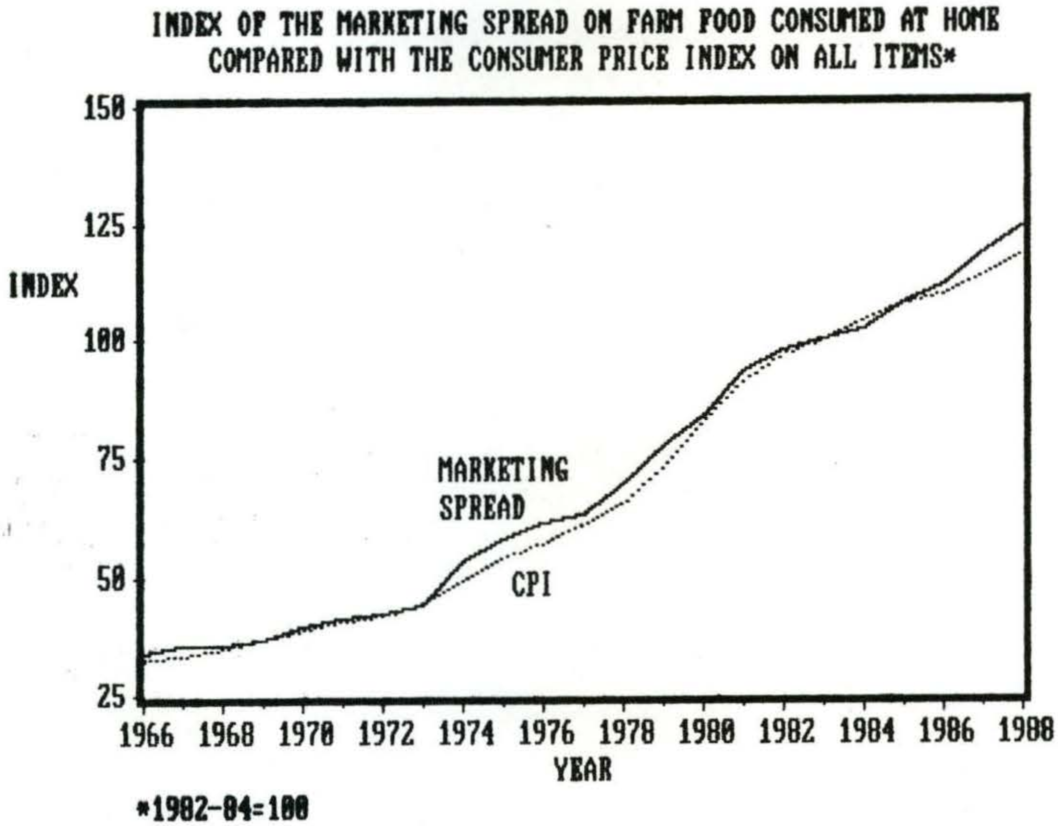


Figure 6

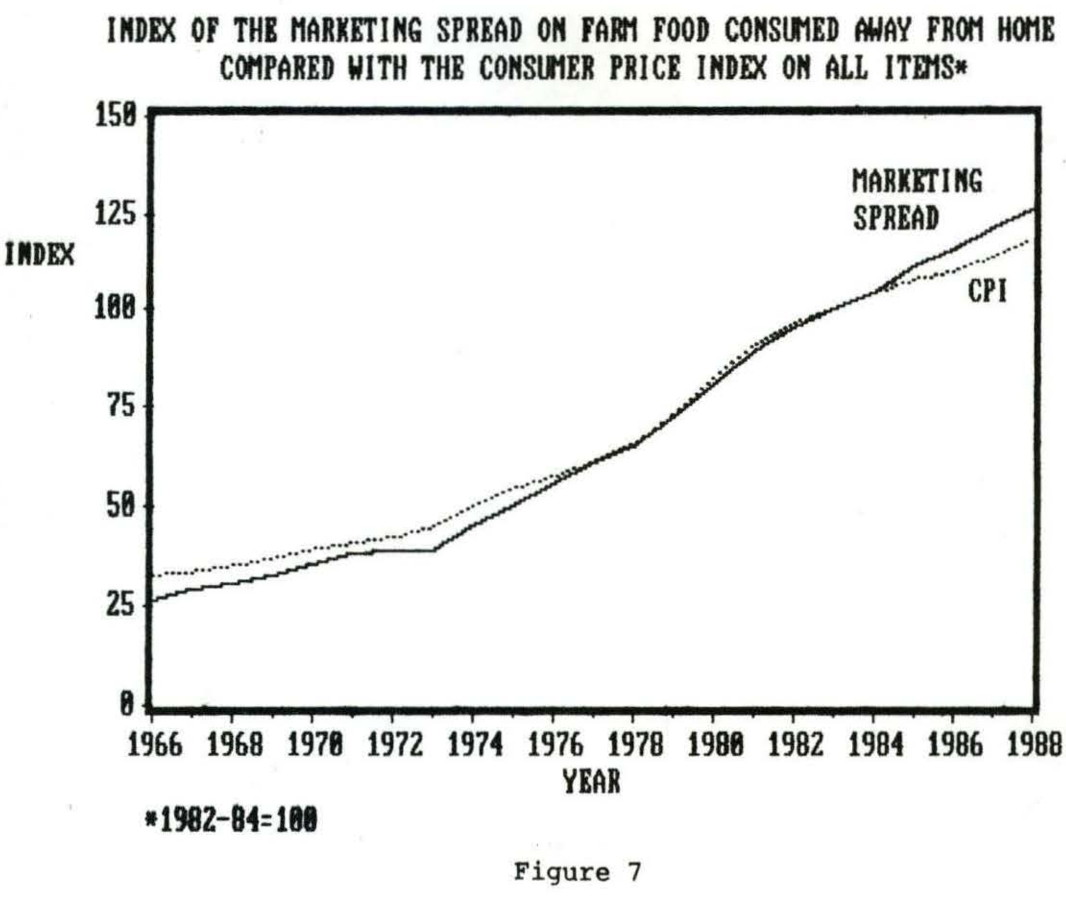


Figure 7

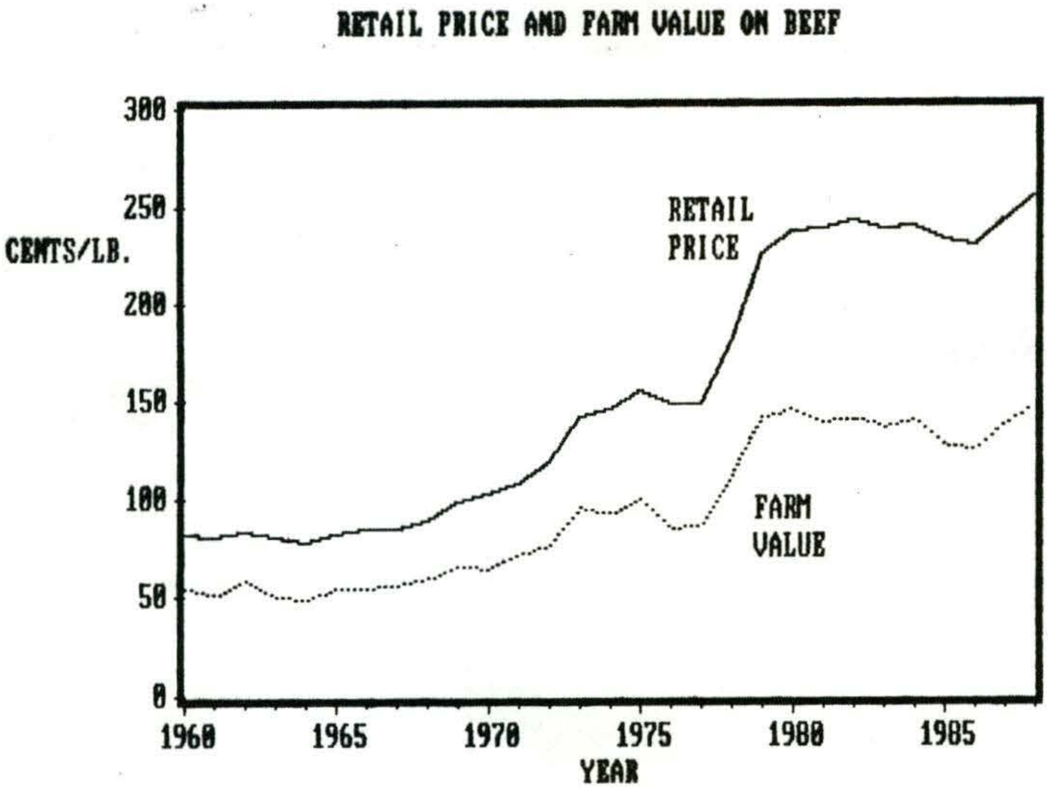


Figure 8

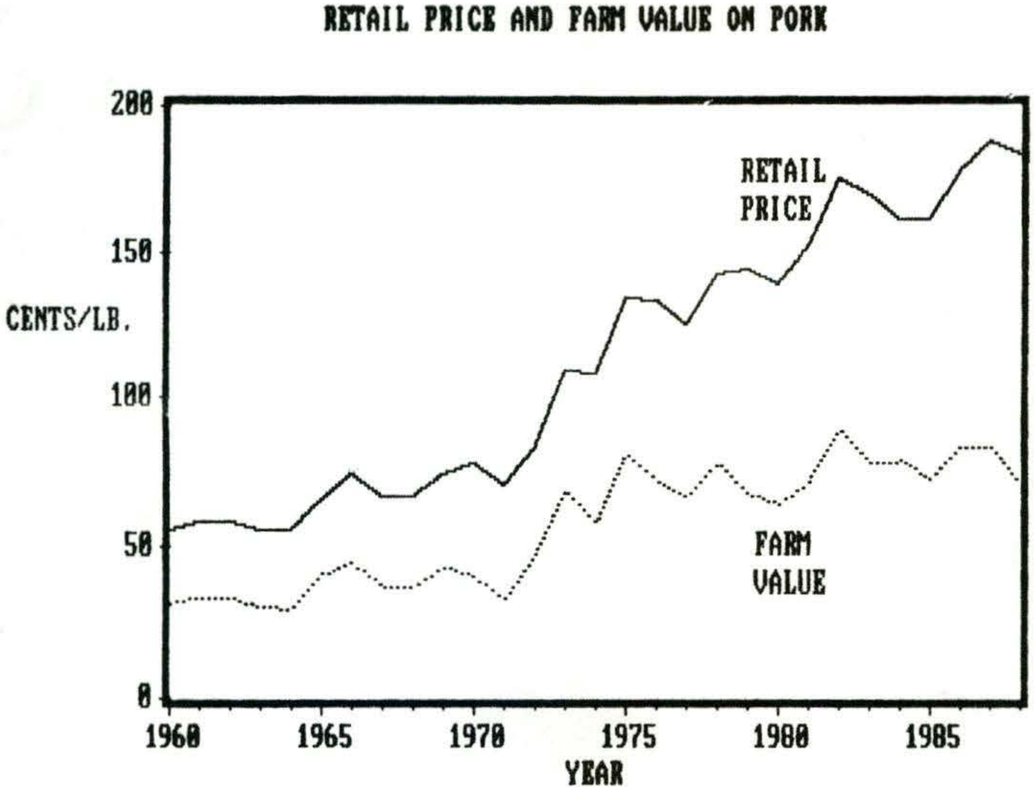


Figure 9

MARKETING SPREAD ON BEEF COMPARED TO THE CONSUMER PRICE INDEX

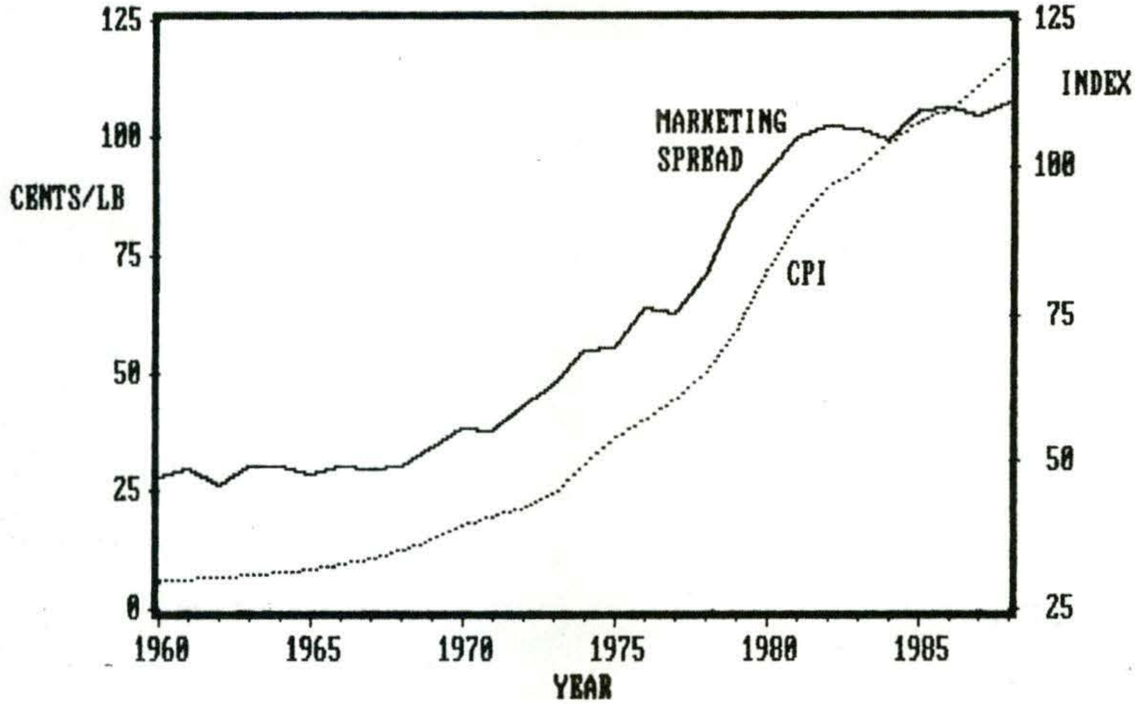


Figure 10

MARKETING SPREAD ON PORK COMPARED TO THE CONSUMER PRICE INDEX

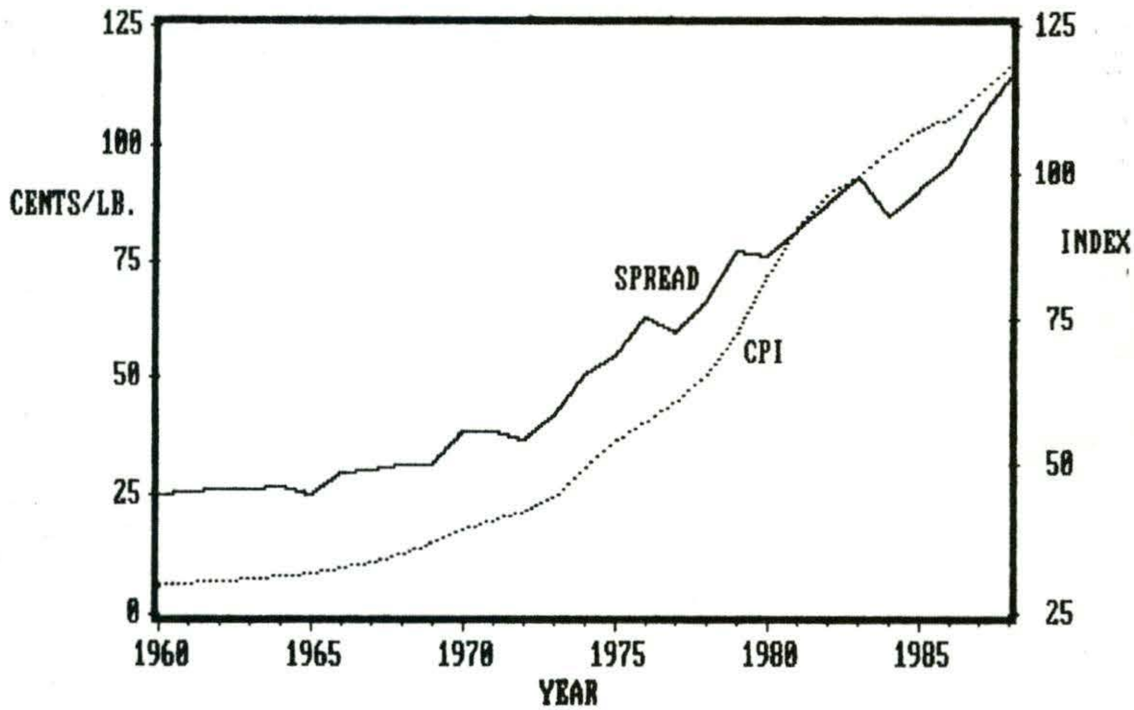


Figure 11