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THE UNITED STATES FOOD INDUSTRY - PRODUCTIVITY, DISTRIBUTION COSTS AND TRENDS

by
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Discusses trends in cost of labor, packaging material, transportation and energy in the food industry.

At the center of the problem of rising food distribution costs are the ever increasing prices of goods, labor and other services used by the food industry. The situation has been further aggravated by the energy crisis. In addition to the problem of rising operating costs, the food industry has been faced with a period when the failure of supplies of food products to expand as fast as domestic and foreign demand is strengthening prices and prompting public concern over the performance of the food industry.

These developments are reflected in trends in food prices, farm-retail spreads, marketing costs and profits, efficiency, and other related factors. The Economic Research Service of the U. S. Department of Agriculture has a program of research to provide factual information and analysis of these trends.

I would like to discuss some of the trends and developments in the food industry relating to food costs, margins, and productivity. I would like to identify the components of the food dollar that represent a large percent of the total and that have increased rapidly--particularly the cost of labor, packaging materials, transportation, and energy.

Distribution of the Consumer's Food Dollar

Our food dollar can be divided into two major parts--one to the farmer and the other to marketing agencies.

The Department's annual marketing bill statistics serve the purpose of showing the distribution of the consumer's food dollar. (The marketing bill is an estimate of total charges for processing, transporting, wholesaling and retailing foods originating on farms in this country, including foods sold in the form of meals in restaurants and other eating places.)

In 1973 these data show that \$83 billion, or about three-fifths of the \$134 billion consumer expenditures for farm foods, went to firms for assembling, processing, transporting, and distributing food. Two-fifths went to farmers to cover their expenses and provide a return for their investment, labor and management.

Agency's Share of the Bill

The marketing bill may be divided into the portions going to processors, wholesalers, food stores and eating places. Retailing and eating places accounted for about half of the total marketing bill in 1973. Processing accounted for over a third of total costs. Wholesaling, the smallest of the three major functions, accounted for an eighth.

Cost and Profit Components of the Bill

Breaking the marketing bill into cost and profit components reveals the relative size of each. Labor cost, packaging, and transportation are the largest components of the marketing bill. The breakdown among the components in 1973 was as follows:

Labor	=48%
Packaging	=12%
Transportation, intercity	=8%
Corporate profit before taxes	=4%
Business taxes	=4%
Interest, repairs, etc.	=4%
Depreciation	=4%
Rent	=3%
Advertising	=3%
Energy cost	=3%
Other	=7%
Total	100%

Labor costs: Direct labor cost accounted for 48 percent of the dollar going to marketing U.S. farm foods in 1973. This does not include the labor engaged in for-hire transportation or in manufacturing of packaging materials used by marketing firms. Since 1962, earnings of employees in food marketing establishments have increased each year--rising at an average annual rate of 5.0 percent a year--closely approximating increases in earnings for the nonagricultural sector of the economy. In the last three years rising labor cost has impacted even more severely as hourly earnings have risen 7.3 percent a year.

Hourly labor costs of food marketing firms increased 70 percent since 1962. This would have increased unit labor cost and food prices substantially more if output per man-hour had not dampened the effect of the increase in hourly earnings by about a third. The increase in output per man-hour limited the additional labor cost per unit of product marketed to 47 percent.

Employment and Labor Productivity in Food Marketing

Employment in food marketing has gone up only about 15 percent during the

past decade in spite of a 20 percent increase in volume of food handled by the marketing system, and an increase in services per unit of product. The farm food marketing system employed 5.6 million persons (full-time equivalent basis) in 1972 compared with 4.7 million in 1962. These workers made up about 7 percent of the U.S. civilian labor force in 1962 and 1972. Employment in public eating places rose more during this period than employment in processing, wholesaling and retailing.

It appears that productivity improvements have been greater for food processing than for food distribution which is oriented more toward personal services than manufacturing. Between 1960 and 1972, output per man-hour in food marketing, that is processing and distribution combined, increased at an average annual rate of 2.6 percent, compared with 3.0 for food processing alone.

At present, government and private industry are studying additional opportunities for improving productivity in food distribution. Examples are work to study the feasibility of modernizing wholesaling facilities, and to utilize central meat cutting and automatic checkout. However, the adoption of these innovations will require time and large capital expenditures.

Thus, although the United States has the most efficient food assembly line in the world, opportunities for further improvement remain. Some of these will be discussed during this workshop. The competitive nature of our private enterprise system will likely continue to encourage increased productivity.

Much of the growth in labor productivity has resulted from improvements in marketing facilities and equipment. These improvements have been achieved by large expenditures for new plants, warehouses, stores, and other facilities. For example, expenditures by firms manufacturing food and kindred products have almost tripled in the last decade--increasing from \$1.06 billion in 1964 to \$3.03 billion in 1973.

Rising prices of new plant and equipment have eroded some of the cost saving

of substituting capital for labor. From 1962 to present, prices of new plant and equipment rose about 3.2 percent per year. During the last three years, the prices paid for new plant and equipment increased around 5 percent per year. Also, purchases of new plant and equipment have been made more costly by higher interest rates. Interest rates charged to business have advanced and held at relatively high levels.

Packaging cost: Packaging materials represented the second largest cost for firms marketing farm foods in 1973. They accounted for 12 percent of the marketing bill. Food processors are the large users of packaging materials, using over four-fifths of the total used by all food marketing firms.

Prices for packaging materials were relatively stable until recent years. Now they are in short supply and the price is rising sufficiently to place pressure on farm-retail spreads. Recently we have heard of shortages and rising prices for grocery bags. During 1973, the price of grocery bags increased 14 percent. Fortunately, grocery bags represent less than 1/2 percent of the consumer dollar spent for food.

Rail and Truck Transportation: The cost of shipping food by rail and truck was \$6.4 billion in 1973 or about 8 percent of the marketing bill. This does not include intracity truck transportation or water and air transportation. Transportation costs are likely to rise further in 1974 as a result of high fuel prices and the reduced supply of transportation services due to reduced speed limits and restrictions on fuel. Also, some labor contracts are up for renegotiation in 1974, and truck drivers paid on mileage bases are negotiating mileage pay increases to offset the reduced mileage flowing from lower speed limits.

Corporate Profits: Higher food prices are sometimes attributed to profits. Total profits have increased over the years as volume of sales has grown. Yet, higher food prices are caused more by increased costs than by

higher profits. Corporate profits (before taxes) of retailers, wholesalers and processors combined now account for about 3 cents of every sales dollar, slightly less than ten years ago. Over a period of years, profits have not been a major contributor to the general trend of higher marketing charges and retail food prices.

Fuel Energy Costs: Direct energy cost for food marketing firms, excluding transportation, amounted to over \$2.5 billion in 1973, accounting for about 3 percent of the marketing bill. The wholesale price index for fuels and power increased 23 percent from 1972 to 1973, the same as the increase between 1962 and 1972. The recent rapid rise of energy prices will add substantially to these marketing costs. In addition, the indirect effect on prices of other inputs purchased by farmers and marketers may be reflected in higher food prices.

We all realize that higher food prices are not welcomed--particularly by consumers on low or fixed incomes. Department policies are intended to encourage a food production and marketing system which provides consumers their choice of food at the lowest prices consistent with reasonable returns to farmers and marketers.

Rise in Marketing Bill

The \$30 billion or 62 percent rise in the marketing bill during the last 10 years has been due to: (1) higher prices paid by marketing firms; (2) increased volume handled; and (3) more services per unit marketed such as occur when highly processed foods are substituted for less highly processed foods.

Higher prices paid by marketing firms for wages, materials and services, excluding the raw agricultural products, accounted for slightly over half of the increase in the marketing bill between 1962 and 1972. These included increased cost of inputs such as labor, packaging materials, transportation and the like.

Growth in volume handled accounted for a third of the rise from 1962 to 1972. This increase in volume reflects increased

consumption due to population growth and greater per capita consumption of some foods such as meats.

Increased marketing services per unit marketed accounted for about one-seventh of the rise since 1962. These services take many forms, including the extra labor to prepare, package, and maintain quality for at-home and away-from-home consumption. Check cashing, parking lots, air-conditioned stores, loading into cars and other forms of added services carry a cost. These services represent an added cost and contribute to the total cost of marketing.

Some consumers are willing to pay for these services. Others prefer lower prices--even if they mean fewer brands, less fancy packages, a narrower range of standardized items, and fewer services.

Percent of Income Spent for Food Declining

The percent of income spent for food is declining. Although food prices and expenditures have increased over the years, average personal disposable income increased faster, at least until very recently, and the percentage of real disposable income spent for food in 1972 was at the lowest level in history. However, a slight increase occurred in the percentage last year as the consequence of the extraordinary jump in food prices. In the future, the rate of decline in the percent of income spent for food probably will not be as great as in the past.

Trends in Market Basket Statistics Between 1952 and 1973

For many years the Department has compiled a set of market basket statistics to measure changes in the prices of marketing services. Retail costs and farm values are estimated monthly for the 65 individual food products included in the basket of foods originating on U.S. farms. This allows derivation of a farm-retail spread which is an estimate

of the total gross margin received by marketing firms for assembling, processing, transporting and distributing the products in the market basket. The market basket statistics measure price changes of fixed quantities of food moving through retail food stores. The quantity weights are those obtained in a BLS survey in the early 1960's for an urban household averaging 3.2 persons.

First, let's review the long-term trend in these statistics. Between 1952 and 1971, retail prices of U.S. farm foods increased 27 percent, reflecting a 4 percent increase in farm prices and a 48 percent increase in farm-retail spreads. Thus, during this period 94 percent of the rise in retail prices of farm foods was due to the rise in farm-retail spreads. The remaining 6 percent was due to the rise in farm value.

Thus, the long-term rise in the level of food prices was due to persistently and relentlessly rising marketing margins. Marketing margins have risen nearly every year in the last 20 years.

On the other hand, farm prices have moved up and down and have only recently achieved the level of 1952. Those years have seen the farmer's share of the consumer's dollar decline from about 50 cents to as little as 37 cents. The farmer's share ranged between 37 and 41 cents for most years during the last decade. This past year it rose significantly averaging 45 cents for the year, up from 40 cents in 1972.

As we have observed, changes in farm-retail spreads over time are determined mainly by changes in costs of all factors involved in processing and distributing. The margin or spread between retail cost and farm value represents an accumulation of charges made by agencies moving products from the farmer to the consumer.

Movement in Market Basket Statistics Immediately Before and During Economic Controls

Recent changes in market basket statistics differ dramatically from the long-term

trend. Since August 1971, when economic controls were first imposed, nearly three-fifths of the rise in retail prices of farm food was due to a 44 percent rise in the farm value of products equivalent to foods purchased by consumers. The remaining two-fifths was due to a 19 percent rise in the farm-retail spread.

Phase I and Phase II appear to have been instrumental in holding down marketing margins. Phase III and Phase IV have been far less effective. So far in Phase IV spreads have widened at an annual rate of 29 percent.

In recent months marketing firms appeared to have attempted to recoup margins squeezed during the price freeze last summer. Most of these increases allowable by the Cost of Living Council have probably worked their way through the system by now. As a result we expect spreads to widen at a slower rate than they have since August. However, rising wage rates, energy costs, material costs, and transportation charges are expected to continue the upward push on marketing margins. Unless returns to farmers for market basket foods decrease this year, consumers can expect to pay higher prices for food from U.S. farms.

A Look Ahead

Most economists are forecasting further substantial increases in the general price level this year, at 6 percent or more depending on the impact of the energy crisis and weather. Historically, the trend in the farm-retail price spread for food has tended to parallel rather closely movements in the general price level as measured by the GNP implicit price deflator. This parallel is not surprising since the operating needs of food marketing firms are fairly similar to those of firms in the nonagricultural sector. Because of this relationship and the expected rise in the general price level, farm-retail spreads are

expected to increase substantially in 1974. As a result, the retail cost of market basket foods may not fully reflect any decrease in returns to farmers that may occur. Pressures for marketing firms to widen their margins appear to be greater than usual this year--in view of unusually large increases expected in hourly earnings.

In the long run, changes in farm-retail spreads and food prices are likely to be closely related to general economic factors...particularly wages and prices of inputs.