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1976

## What is happening to food prices?

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### Recommended Citation

Tempo, Vol. 22, no. 1 (1976), p. 32-37

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# WHAT IS HAPPENING

by GAIL N. BROWN/National Director, Agribusiness

Bacon \$1.69 per lb., eggs 64 cents per doz., bread 38 cents per loaf, butter \$1.01 per lb., cheese \$1.69 per lb. Food prices such as these, obtained on a recent visit to a San Francisco supermarket, are worrying American consumers. But what has happened to food prices and what will happen to them in the next decade is also of increasing concern to businessmen and government officials. As the US population spends more of its disposable income for food, a smaller amount becomes available for such purchases as automobiles, clothing, furniture, travel, and entertainment. As a result, increasing food prices not only affect one's personal standard of living but also slow the economic growth of the nation.

## **Why Are Food Prices High?**

In 1975, food prices increased approximately nine percent above 1974. This compares to increases of 14 percent in both 1974 and 1973. Expressed another way, the nation spent a record \$180 billion for food in 1975, compared to \$165 billion in 1974 and \$144 billion in 1973, for a similar volume. Some consumers still have not recovered from this blow to their pocketbook. Why? Because during the past three years such increases have been greater than the increases in personal disposable income (that is, income after federal, state, and local taxes). This is a change from the years prior to 1973, when the percentage of disposable income that consumers spent for food was decreasing year after year. At the end of World War II, for example, consumers were spending approximately 25 percent of their income for food. By 1960, this had decreased to 20 percent. The ratio of food expenditure to personal disposable income reached a low of 15.4 percent in 1972, increased to

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sServices, and Dr. ERIC THOR, Agricultural Economist, University of California

15.9 percent in 1973, 16.8 percent in 1974, and is estimated to have been about 17.2 percent in 1975.

For many years, farm-produced surpluses were a stabilizing factor in the food market. This was possible because of the federal policy of making non-recourse price support loans when prices were low and then selling back into the market when prices rose.

By the late 1960s, the growing world population, plus accelerating per capita incomes in some of the developing countries, increased the annual demand for food beyond the volume that the world was producing. The result was a slow reduction of grain inventories and other food surpluses that had been accumulating, primarily in the United States, during the 1950s and early 1960s. Then, in 1972, a shortfall in agricultural production occurred in Russia, Africa, and Southeast Asia. This produced a surge in the foreign demand for US grain. Such competition for available food supplies caused world food prices to rise sharply. The limited capability of farmers to expand immediately their production of wheat, feed grains, and corn, has, in turn, maintained a continuous upward pressure on food prices.

Until 1974, the United States had the capacity to produce more agricultural products than it did produce. For 40 years prior to 1974, it was common for as much as 60 million acres of cropland to be idling in some type of government land improvement or soil bank program. The increase in world demand for food, plus the shortfall in production in 1972, changed all this. Farm prices rose and farmers, seeing an opportunity for profit, planted the idle acres. In 1974, the US was, for all practical purposes, in full agricultural production. For the first time in the history of the nation, there

were no new prairies to put under the plow, nor irrigation projects to open up new farmland. The limiting factor in agricultural production had become the availability of farmland; it was no longer the government programs. Farmers, like other businessmen with a limited capacity, began to produce those products which would bring them the highest net return.

What happens when crops compete for land? In the Sacramento Valley of California, for example, many different crops can be grown, so farmers estimate their net income per acre for each crop. Thus, in the spring of 1975, canners who contracted with farmers to produce canning tomatoes found that farmers wanted about \$55.00 per ton. Canners offered a lower price. Farmers did not argue; they just prepared to plant corn which would provide them with a better return at \$3.00 per bushel than would the lower price for canning tomatoes. Since the canners needed tomatoes to enable their canning plants to meet the consumer demand, they had to meet the competitive price created by the world demand for corn. Therefore, most canning tomato contracts were signed at base prices between \$52.50 and \$55.00 per ton.

## **Who Is Responsible?**

*The Farmer?* Is the farmer reaping a money harvest? There is no simple answer to this question. Some farmers are making increased profits; others are losing money.

The economists' model does not show how farming is an industry made up of many different commodity groups, such as cattle ranchers, dairymen, poultrymen, feed grain and soybean farmers. Nor does it reflect how increased prices and profits for one commodity group can severely

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limit or wipe out the profits of other groups.

For example, the large export demand for feed grains and soybeans in 1972 increased prices and thus profits for feed grain and soybean farmers, but it caused large financial losses to cattle feeders, dairymen, poultry growers, and swine producers, whose feed costs jumped. As a result, the farmers indirectly increased the price of meat to the US consumer—because cattle feeders were forced to reduce the number of cattle they fed, because dairymen reduced their herds, because poultrymen and turkey growers did not grow out as many new poults and swine producers raised fewer hogs. When reduced supplies caused the retail price to rise, housewives reduced their purchases of these foods and substituted lower cost foods, such as beans, fish, and canned goods. This consumer resistance in turn kept the profits of livestock, dairy, and poultry farmers below the point at which farmers would increase production. As the supply of such products remained limited, their prices also remained relatively high in retail stores.

When farmers produced large feed grain and soybean crops in 1974, however, the increased supply caused feed grain prices to decrease. The Chicago December, 1975, price of No. 2 yellow corn was \$2.59 per bushel compared to \$3.47 a year earlier. This drop in feed grain prices has encouraged livestock and poultry farmers to increase production, which is expected to hold down food prices in 1976. However, as of mid-March, dry weather in the far west and midwest may create a short grain crop in 1976, causing grain prices to rise again in the commodity markets.

Thus, the farmer's money harvest depends too much on the demand for his products and the cost of his inputs for him to be controlling the prices we pay.

*The Processor?* Is the processor making undue profits? The last hard figures date from the mid-1960s, when Congress established a National Food Commission to probe this question, along with others about food marketing.

The commission reported on many industries, including that of meat packing, which for years had been dominated by a few large firms. It found increased competition among these firms during the years 1947-1963, as the number of meat packers increased from 1,999 to 2,833—a 42 percent growth. In search of cost savings to meet the new competition, meat packers began to abandon their high-cost multi-story plants located in the large cities, and to replace them with smaller and more specialized plants located out in the country where livestock was produced. This change reduced procurement, transportation, and processing costs, plus in-transit shrinkage of livestock.

The Food Commission report cited the trend as evidence that the meat industry was highly competitive. It added that earning rates for the leading meat packers averaged less than rates for leading firms in most other branches of the food industry, and that net income as percent of total assets decreased during the period studied.

Unfortunately, there has been no major study on organization and competition in the food industry since the commission's report. While Congress is now considering the establishment of a new commission to evaluate what has happened since the mid-1960s, results will come in slowly.

In the meantime, one element that has added to food costs must be cited. This is the trend, found by the commission, toward providing the consumer with more service and convenience (e.g., foods ready to heat and serve). This is further evidence that meeting consumer

requirements determines policy in the food industry—that since competition guides decision-making, the monopoly power necessary to create undue profits does not exist.

*The Wholesaler and Retailer?* Consumer groups have often stated that the elimination of the middleman would reduce the cost of food. Many attempts have been made by various groups to form consumer-owned cooperative retail stores with the expectation of reducing costs—buying directly from farmers and operating a low-cost store with little overhead. However, very few consumer-owned retail food cooperatives have survived for more than a year or two. The cooperatives were able to eliminate the middlemen but were unable to eliminate the functions and costs of procurement, transportation, storage, packing, breaking into lots, delivering to the store, and retailing. Farmers, too, have tried to increase their income by joining together in farmer-owned cooperatives and integrating forward into processing and retailing. But, like the consumers, farmers have been unable to eliminate the functions necessary to process and market foods. Farmer cooperatives that once owned retail food stores are nearly all out of that business today.

On the other hand, many large supermarket chains have been successful in integrating “backwards” and eliminating some of the middlemen. Largely because of size, they have also been able to reduce costs by dealing directly with producers, establishing specific demands regarding quality and delivery conditions, and operating large modern warehouses which employ less expensive handling and control techniques.

The result has been a reduction in the number of food wholesaling establishments from approximately 3,300 a

decade ago to 1,600 today—certainly evidence that wholesalers themselves are not able to enjoy undue profits.

As for retailers, even though the large chains have been able to reduce costs, intense competition has prevented them from profiting from the cost savings. This is illustrated by what has happened to profit rates after taxes of the 14 leading chains—excluding A&P, which had a large write-off due to store closings. Profit rates have slowly eroded from 1.08 and 1.09 percent of sales in 1970 and 1971 to 0.77 percent in 1972 (during price controls), 0.85 percent in 1973, 0.89 percent in 1974, and an estimated 0.85 percent in 1975. Thus, even if the middleman can be eliminated, what he does in our consumer-oriented economy cannot be; and even if what he does must still be paid for, the cost is controlled by the competitive situation.

#### **Where Are Prices Headed?**

*The Demand.* The demand for food in 1985 will depend upon world population growth and increases in individual income. Through history, the population of the world has grown at an increasing rate. Improved health care has been the major factor. The world population that was increasing at an annual rate of 0.5 percent in 1830 doubled that rate during the next 100 years. However, the next doubling required only 43 years, as the growth rate rose to 2.0 percent in 1973. This annual rate has slowed in some of the developed countries, such as the US, Japan, France, and the USSR. But these countries include only a small proportion of the world's population, which will grow from just over 4 billion in 1976 to approximately 4.9 billion by 1985.

The world demand for food will also be affected by increases in per capita income. It has long been observed in

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the developed countries that as per capita income rises, so does the consumption of meat, dairy products, poultry products, fruits, vegetables, and other foods. The problem is that such commodities require more land than do grains and root crops.

The impact of these two forces is demonstrated by the increasing volume of US agricultural products that are exported. The value of exports increased from \$5.7 billion in 1969 to \$21.6 in fiscal 1975. As a result of these higher exports, however, the supply of agricultural products available for the US market was reduced. Because this tended to increase food prices, many think there should be some limits on US exports. However, these *agricultural* exports provided a favorable commercial trade balance of about \$11 billion in 1974 and 1975, and this will continue to be necessary to help pay for non-agricultural imports, especially oil.

How large an increase in food production will be needed to feed the expanding world population during the next decade, without increasing the price of food? There is no precise answer. A four percent annual increase in food production is an estimate that is commonly used. But whether it is 3.5 percent or 4.5 percent does not really matter. What matters is that a considerable increase be achieved.

Increasing food production at a rate of four percent per year will not be easy. Farm and rangelands provide the base for 99 percent of the world's food supply. Less than one percent comes from fishing. Expansion of the fish harvest is often put forth as a logical solution, but ichthyologists point out that the oceans are already being overfished. Thus, increased production during the next decade or two will have to come from agriculture, by improving the yield per acre.

*The Land Available.* The world's arable land was estimated in 1970 to be 3,610 million acres. Arable land means land presently cultivated, plus all land capable of cultivation and able to produce food crops appropriate to the climate.

A University of California study published in 1975 projects that the world's arable land will reach 3,978 million acres by 1985—a 10 percent increase over 1970. This increase is expected to come from land reclamation, clearing of forests, draining of lowlands, and some irrigation developments. There is additional land in the world that can eventually be brought to an arable stage. However, many countries—particularly those in South America and Africa—lack capital, human resources, technical know-how, and, to varying degrees, the railroad, credit, and distribution systems necessary to rapidly bring new lands into production.

A look at the amount of arable land available per capita, first in 1970 and then in 1985, helps one to understand the capacity of the land to produce world food needs. In 1970 there was one acre of arable land for each person. Given the projected increase in world population as well as arable land, data shows that by 1985 there will be only 0.8 acres of arable land available per person in the world.

Potential production cannot, however, be measured solely by world arable acres, because food production per acre of land is greatly affected by soil productivity. Productivity, in turn, is influenced by such factors as the natural fertility of the land, the annual distribution of precipitation, and the seasonal ranges of temperature. Productivity is also affected by the level of technology and the intensity of cultivation.

There is no doubt, therefore, that the projected reduction in arable land available per capita means that the increase in world food supply will have to come from increased crop and animal yields.

*The Yields.* For many years, increased yields have been achieved as a result of research and the farmers' willingness to use new technology. Increased food production from research cannot, however, be expected to increase yields as rapidly during the next decade as it has during the past few years, when a storehouse of unused information developed by research was put to use by farmers. Because they lacked an economic incentive, many US farmers had not used all the new technology available during the 1950s and 1960s. Why bother, they asked, to make the expenditures needed to improve grain varieties, fertilizers, insecticides, and herbicides, and/or to increase their investment in land improvement and irrigation. However, the higher prices for farm products during the last three years have encouraged nearly all US farmers to use the best varieties, technology, and cultural methods available.

In addition, researchers find it more difficult to develop new plants with increased yields, or new chemicals and technology, because the easy research has already been done. Also, there is increased government restriction on the chemicals and herbicides that can be used. And in Latin America and Africa, where there is the greatest potential for increasing food production, increasing yields will be slow, because there is no strong basic research compared to the publicly funded program that has existed in the United States for more than 100 years. (Different climate and soil conditions prevent the extensive use abroad of US research results.)

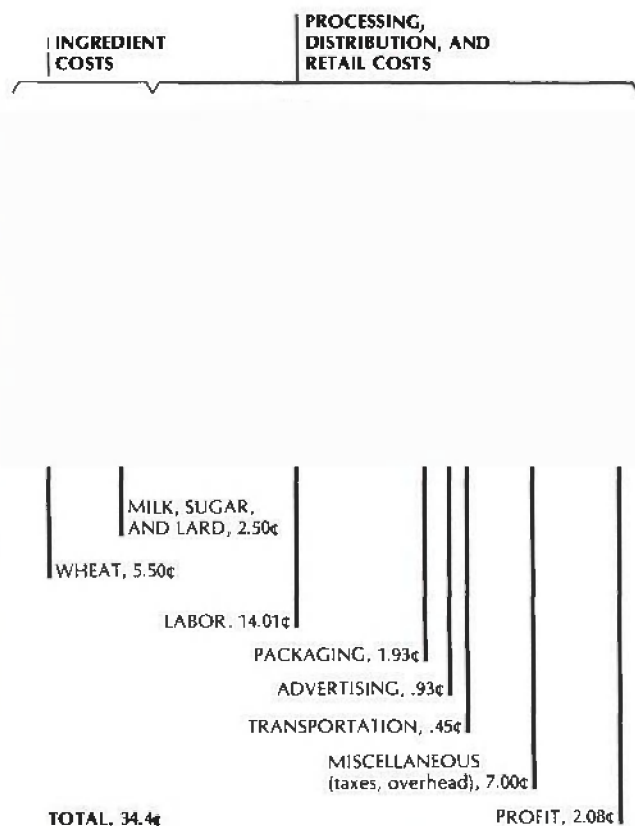
The reduced opportunities for yield-increasing breakthroughs in research, and the reduction in the amount of arable land per person, does not mean that the world is going to have serious food shortages during the coming decade. Several major research studies done on this question indicate that, on a worldwide basis, food production from crops and animals is projected to increase at a rate fast enough to prevent major world food shortages. But unless there are two or more successive years of very favorable worldwide weather, there is little probability that sufficient reserves can be accumulated to offset the increased prices that follow years of short production.

What then is the outlook for US food prices?

- The US will continue to produce more food than it consumes.

- The US will continue to market its agricultural products worldwide in order to offset the cost of non-agricultural imports and produce a favorable balance of trade.

### COST BREAKDOWN OF ONE-POUND LOAF OF BREAD



- US consumers will continue to have to compete with consumers worldwide for the available supply of food.

- The average annual food production during the next decade will not exceed the average annual demand. This means the supply of food on a worldwide basis will probably be relatively tight.

- US consumers are assured of an adequate supply of food because they, more than any other people in the world, have the resources to meet the growing market competition.

- The increasing costs of labor, transportation, and energy will continue to push the retail food prices up in the coming decade.

- The percent of our disposable income spent for food will continue to rise faster than will personal disposable income, probably reaching 21 to 22 percent by 1985, as compared to 17.2 percent in 1975.