

JOHN A. SCHNITTKER

*Schnittker Associates*

# *The 1972–73 Food Price Spiral*

THE SHARP RISE in U.S. and world prices of agricultural commodities in 1972 and 1973 traces to five principal causes: (1) a decline in world production of grains, and a persistent lag in growth in protein meal production relative to demand; (2) rapid growth in the demand for meats in all developed countries, based mainly on rising personal incomes; (3) U.S. farm policies and programs that discouraged expansion of soybean production, and continued to idle large acreages of cropland that should have been turned to livestock production at least three years ago; (4) administrative lags and errors regarding export subsidies, evaluation of crop reports from abroad, estimation of prospective export volumes, and the need to expand agricultural production sharply and to limit exports in 1973; and (5) devaluation of the dollar, which added to the demand for farm products and raised prices in countries whose currencies were devalued.

The price rise occurred despite near-record grain and oilseed crops in the United States, and despite the utilization of sizable reserves of wheat and feed grains that had accumulated in prior years.

## **Developments in 1972–73**

The single overriding cause of the sharp rise in the prices of agricultural commodities was a decline of 36 million tons in world grain production in

Note: This paper was adapted from one that was prepared earlier this year for the Joint Economic Committee, and that will appear as a part of the record of its hearings.

1972, as shown in Table 1. Grain production had failed to rise significantly in four of the years since 1962 but never in the past decade had world production declined. The decline of 36 million tons in a single year put 1972 world production some 70 million tons below the ten-year trend. Production had risen 338 million tons from 1961 to 1971 for an average gain of 33.8 million tons per year.

The drop in food production in Russia was by far the most critical factor in world grain markets. Russia's reported gross output of grain and pulses in 1972 was 168 million tons, compared with 181.2 million tons in 1971 and 186.8 million tons in 1970. Potato production also dropped sharply—from 92.7 million tons in 1971 to 77.8 million tons for 1972, and sugar and sunflower production also fell to recent low levels.

India and China experienced smaller but still significant shortfalls in grain output. India's 1972-73 harvest (including the wheat crop of early 1973) did not exceed 96 million tons of grain, 18 million tons below target. Grain production in China was officially reported to have fallen some 10 million tons below 1971. Australia had her wheat supplies for export cut

**Table 1. World Grain Production, 1961-73<sup>a</sup>**

Millions of metric tons

Year	Annual production	Change		
		Annual	Since 1961	Average since 1961
1961	771	...	...	...
1962	816	45	45	45.0
1963	826	10	55	27.5
1964	859	33	88	29.3
1965	868	9	97	24.3
1966	935	67	164	32.8
1967	974	39	203	33.8
1968	1,005	31	234	33.4
1969	1,010	5	239	29.9
1970	1,016	6	245	27.2
1971	1,109	93	338	33.8
1972	1,073	-36	302	27.5
1973	1,128	55	347	28.9

Sources: 1961-70, "Summary: The 1972-73 Food Price Spiral," A Joint Economic Committee Staff Study prepared in consultation with Schnittker Associates (April 3, 1973; processed), p. 2; 1971-73, compiled by author.

a. Includes wheat, barley, corn, oats, sorghum, rye, rice (milled basis), plus mixed grain in the European Community and miscellaneous grains in China. Production estimates for USSR are adjusted for excess moisture and dockage.

in half, and Argentina, South Africa, and the Middle East also suffered crop losses. In the rice belt of Asia, Indonesia, Sri Lanka, the Philippines, Pakistan, Bangladesh, Vietnam, Cambodia, and Laos—all were unable, for a variety of reasons, to meet the needs of their populations from their own production.

As a result, world grain trade rose from 106 million tons in 1971–72 to 130 million tons in 1972–73, and internal stocks have been drawn down to rock-bottom levels in virtually all importing and exporting countries.

#### EXPORT PRICING IN A SELLER'S MARKET

The U.S. Department of Agriculture did not appreciate the significance of these developments in world grain production despite widespread public and private reports, beginning in February of 1972, of serious crop difficulties in the USSR. This failure led to a period of bizarre export pricing in July and August 1972 after Russian grain purchases had begun. With wheat sales to the USSR reported near 10 million tons by early August, with total wheat exports authoritatively projected at 1.1 billion bushels or more, and with other exporters known to have been virtually out of the market for months because of large sales or short crops, USDA continued until September 22 a subsidy policy that priced wheat for export at levels that had been established in the buyer's market prevailing during the previous year. This policy probably added slightly to the physical volume of wheat exports, and contributed somewhat to increases in U.S. prices. The principal effect of the subsidy policy, however, was to waste some \$300 million in public funds, and to lose about the same amount in badly needed export earnings.

#### PRODUCTION OF OILSEEDS AND PROTEIN MEALS

Oilseeds and protein meals exhibited the most spectacular price movements of all the farm commodities in 1972 and 1973. The demand for protein meals is tied closely to the demand for meats and poultry, since the meals are essential to efficient conversion of grains into meat. Strong demand, therefore, had kept prices of oilseeds and protein meals at fairly high levels in the 1971–72 season, and had reduced carryover stocks to minimum levels in all countries. The March 15, 1972, price of \$120 for a ton of soybean meal was already high by earlier standards; a year later, the price was \$250, and it rose to over \$400 at the peak in the summer.

Poor harvests, bad luck, and adverse government policies all contributed

to the demand-supply squeeze that was developing in protein meals in 1971–72. The Soviet sunflower crop in both 1971 and 1972 fell below the previous year's crop. The peanut (groundnut) crops in India and Senegal fell well below target levels. The Peruvian fish catch began to falter in 1972 as water temperatures off the west coast of South America turned unfavorable for production of anchovies for fish meal.

Most important, the acreage of soybeans in the United States did not rise at all in 1971 and did not increase adequately in 1972 despite strong prices. This lack of responsiveness was largely the result of the "set-aside" feature of the Agricultural Act of 1970, which permitted farmers to plant additional corn at the expense of soybeans while at the same time participating in the program designed to reduce corn production. As a consequence, disappearance of soybeans from the United States has exceeded production in each year since 1968, and stocks are dangerously low.

#### LIVESTOCK AND POULTRY PRODUCTION

Studies by the Food and Agriculture Organization and the Department of Agriculture have documented the rapid growth in world demand for red meat and poultry and the expectation that the world will experience a continuing shortage of animal products. Consumption in many countries is low and the capacity for change is great. Per capita consumption of meats in all developed countries is positively associated with rapidly rising per capita incomes despite rising prices.

Meat prices rose rather steadily and sharply for several years prior to 1972, and the spectacular rise in 1973 represents the acceleration of an established trend, not a new development. World beef prices doubled from 1963 to 1971, and have risen sharply since 1971.

World grain and oilseed shortages and high prices have interacted with the cyclical and short-term movements of cattle, hog, and poultry production in the United States. In 1972 cattle raisers were marking time on marketings, but were building their herds for future expanded production. Hog producers reacted late in 1971 and in 1972 to low prices a year or so earlier, and reduced output. Both these sectors faced record high feed costs by the late summer of 1972, thus limiting any tendency farmers and feeders may have had to feed to heavier weights to take advantage of high meat-animal prices. Broiler and egg producers are even more sensitive to feed costs, and cut back production especially in response to protein meal prices.

But that is not the whole story. Policy makers have known about the de-

veloping meat shortage for several years but have failed to act in a timely way to use the nation's extensive land resources to expand basic cattle herds so essential to future supplies at reasonable prices. As early as 1963, Congress was asked to provide authority in the feed grain program for the secretary of agriculture to permit land diverted from crops to be used for grazing. This authority was granted, but only for emergency use on an area or county basis. In the Agricultural Act of 1970, Congress authorized unrestricted use of set-aside (diverted) acreages for grazing or for production of hay, but the administration neglected to use the authority until it was faced with the present emergency in the fall of 1972. Use of set-aside acres for cattle production will not expand beef output materially for at least two years, but it is definitely constructive and should be continued.

#### GOVERNMENT POLICY DECISIONS

The strong demand for meat, poor 1972 harvests, and a pervasive worldwide inability to expand the output of protein meals enough to stabilize prices largely explain the price increases of late 1972 and of 1973. A number of policy decisions were taken to temper the buoyant price movements. But chaotic decision making with respect to planning for 1973 harvests contributed to a psychology of scarcity which has dominated U.S. and world markets for grain and oilseeds for twelve months.

Measures to augment supplies included, first, sharp reductions in reserves of grains. Stocks of the Commodity Credit Corporation were sold and federal grain loans to farmers were terminated. As the 1973-74 crop year began, CCC had literally no grain reserves with which to limit price increases or to meet other emergencies. Second, the suspension of beef import quotas was continued and dairy product imports were increased. Third, export subsidy payments on wheat, rice, lard, poultry, and tobacco were ended late in 1972. And, finally, administrative actions restricted agricultural exports under P.L. 480, barter, and the CCC credit programs.

For the 1973 crop year, the administration released most of the acreage that was to be set aside under 1973 farm programs. Errors of judgment in assessing the impact of the events of 1972 on production requirements for 1973, and lags in decision making, brought a new round of price escalation in mid-1973.

First of all, on July 17, 1972, the administration announced a wheat program providing for maximum acreage set-aside for the 1973 crop, authoriz-

ing additional set-asides for further payments beyond the statutory payment to wheat growers, and determining that barley acreage would again be limited in 1973. This decision, made only two weeks after the massive wheat sales to the USSR had begun, should have been corrected in time to permit needed expansion of wheat plantings in the fall of 1972. Instead, it stood until January 1973, when decision making in farm program matters was assumed by the Executive Office of the President. No economic basis can be found for the failure to change the wheat program by September 1: it was clear by August that wheat exports would exceed 1,100 million bushels, that carryover stocks would be reduced to under 500 million bushels, and that crop losses were prevalent throughout the world. Current high wheat prices are one result.

Then, on December 11, 1972, came announcement of a feed grain program designed to divert some 25 million acres from production, and to produce a maximum 1973 corn crop of only 5.5 billion bushels. Had this decision stood, both corn and soybean production in 1973 might well have been so short as to push prices to higher levels than in 1972, even with generally good crops abroad. Fortunately, the program was amended on January 31 and again on March 27, to bring larger acreages into production. Although some potential output was lost as a result of the stop-start nature of farm program decisions, a record 1973 corn crop will be harvested, and the U.S. feed grain carryover will not be reduced as seriously as wheat was during the 1973-74 marketing year. The 1973 soybean crop will reach 1.6 billion bushels, large enough to hold prices below the record levels of early 1973.

### **The Production and Price Outlook for 1973-74**

The price impact of even moderate crop losses in 1973 would have been far more severe than that experienced in the previous year. The drawdown of 25 million to 30 million tons of U.S. reserve grain stocks, and a sharp drop in Canadian grain reserves during the past season, held increases in grain prices in 1973 below what they might have been had reserve stocks not been available. This conclusion is bolstered by the fact that the greatest percentage increase in prices occurred in soybeans, where rapidly growing demand and slowly expanding supply have prevented accumulation of any reserve stocks.

There were a number of ominous signs here and in other countries that made larger supplies in the new crop year far from certain until late August 1973: (1) Wheat plantings in the Soviet Union in the fall of 1972 were 17 million acres below plans because of poor planting conditions. Lack of winter snow suggested short moisture supplies in spring 1973. But expanded spring plantings and good weather have brought Russian harvests about up to their targets. (2) India suffered continuing short food supplies, amid signs that the 1973 wheat harvest would not exceed 27 million tons. The disappearance of all reserve stocks as a result of the winter's shortfall also placed India in a precarious position. (3) Drought continued into 1973 in grain-producing provinces of China, and that country made early purchases of large grain imports for 1973-74. (4) The short supply in a large number of countries in the Middle East, Africa, and Asia has probably resulted in use of any reserve stocks they might have held. South Africa's corn crop was cut in half, to below domestic needs. A number of Asian countries whose staple diet is rice are crucially dependent on the 1973 monsoon and have no place to turn if it fails. The decline in Asian rice production of some 18 million tons compared with 1971 and 1972 has been overlooked as a factor in the near-term food situation. (5) Adverse weather plagued early 1973 field work in the United States, following an autumn when the harvests were late and tillage was below average. These disadvantages were, however, overcome by excellent mid-summer weather in 1973. (6) Shortages of fuel and fertilizer threatened to slow U.S. harvests.

Other major grain-producing countries have set record farm production targets for 1973, and are having reasonable success in achieving them. World grain production will be some 5 percent above the low 1972 level, but not yet back on the trend of the past fifteen years. The 1974 crop will be particularly crucial.

The outlook for expanded production of red meat and poultry in the late months of 1973 and 1974 depends partly on expansionary forces in motion within the livestock industry, but also importantly on world grain and oilseed developments in 1973. Swine, egg, and poultry producers have reduced their production in summer 1973 compared with 1972, and fewer cattle are on feed. But the fact that the number of breeding cattle was at a record high on January 1, 1973, promises a larger total supply of beef by mid-1974, although the extent of the expansion depends on grain-meat price ratios.

Everything has gone wrong with official predictions of food price inflation in 1973. USDA once predicted a 6 percent rise, but that was out of

date before it was printed. Retail food prices rose almost 5 percent during January–February, and farm price movements in the late winter ensured that the March and April figures would continue the rapid rise. In April, I said before the Joint Economic Committee:

We should not be surprised if food prices rise by a total of 10 percent in 1973, even if the administration's best hopes for farm price stability are realized. If adverse crop weather becomes widespread, or if meat production does not expand as indicated, food price increases for 1973 could be held to 10 percent only by special measures designed to achieve price stability at home by reducing the supplies available to world markets. Limiting exports of grains and oilseeds in such a situation by direct means, continued limitations on use of P.L. 480 and CCC credit, and restrictions on exportation of meats from the U.S. would be appropriate in these circumstances.<sup>1</sup>

By June (before Phase 3½) it was clear that retail food prices would rise by 15 or 20 percent in 1973. Then a series of official miscalculations threw the entire food sector into turmoil, and brought on further sharp food price increases which could easily have been avoided.

Instead of limiting increases in the prices of raw materials (corn, wheat, soybeans) by means of export licensing, and relying on competition and profit restrictions to limit the rise in meat, poultry, and egg prices, the President froze the latter while crop uncertainties and record export demand drove summer grain prices to record levels.

These developments squeezed actual or potential feeding margins, threw the industry into confusion and uncertainty, and brought on the chaos of July and August in the food markets. As a result, the increase in the food component of the consumer price index for August was 6 percent. That places the retail food price increase for 1973 at about 20 percent in eight months, or an annual rate of 30 percent.

Food prices will rise further during late 1973 and early 1974, as ceilings end and pass-throughs are initiated, as grain prices remain high by any standard except that set in July and August, and as reduced pork and egg supplies—the legacy of the summer's uncertainty—become apparent. For the calendar year, I stay with my estimate of a few months ago: a 25 percent rise in retail food prices from December 1972 to December 1973.

1. "Summary: The 1972–73 Food Price Spiral," A Joint Economic Committee Staff Study prepared in consultation with Schnittker Associates (April 3, 1973; processed).

### **A National Food Policy**

The ineptness of recent policy interventions on food certainly gives the idea of a national food policy a bad name. The administration's logic now can be summed up thus: "It was a mistake to place ceilings on meat prices, so in the future there should be no policy; just let the market work."

This is not good enough. Policy makers must face up to the problem of food supply and price instability. Neither total reliance on market forces because of recent inept policy interventions, nor blind dependence on government intervention because of occasional inadequate market performance, will serve the nation well. The United States needs a national food policy, not separate farm policies. The present crisis, which may well deepen in 1974-75 in the event of even minor climatic variations, has already provided the occasion for the opening debates on such a policy.

It is time for the United States once again to cooperate with other nations and with international agencies in trying to work out a multilateral approach to increased stability in the world food system. Early action to establish and announce a comprehensive national food policy to replace the present contradictory actions relating to domestic food prices, exports, consumer supplies, and stabilization reserves is a prerequisite to international cooperation. This action can be taken under existing laws, and should be carried out in consultation with the Congress and with interested groups and associations.

### *Discussion*

IN RESPONSE to a query from George Perry, Schnittker offered his judgment that export controls were not being seriously considered as a policy measure currently. Nonetheless, he felt that they could become a live issue in the event of disappointing world grain harvests, or precautionary buying by countries such as Japan and Russia against the possibility of crop failures in 1974. Fred Bergsten noted that controls on U.S. exports might depress the value of the dollar in the present world of flexible exchange rates and thereby increase U.S. inflation in imported goods and other exportable

goods. Schnittker felt that the United States could manage a two-tier price system that might reconcile the stability of domestic prices and balance-of-payments inflows; controls could permit higher export prices to the extent that the price elasticity of world demand for U.S. agricultural products is rather low.

Alan Greenspan commented on the sizable gap between Schnittker's estimates of demand and supply in 1973-74 and the consequent further reduction of stocks that is projected. The low level of inventories seemed "scary" to him, implying extreme vulnerability of prices on the up side in the event of any disappointments in production over the next few years.

Commenting on the longer run in response to a question from William Nordhaus, Schnittker said that, given a good supply situation and reasonable weather conditions, U.S. farm commodity prices might settle down by 1975 or 1976 to a normal level well below current positions but probably 25 to 40 percent higher than that in 1969-71. He noted, however, a number of uncertainties, including the forecast by one meteorologist of a long-term change in the world's climate adverse to grain production.

Murray Weidenbaum wondered how promptly the food problems of 1973 could have been foreseen and when federal farm policy might reasonably have been adjusted in light of the warnings of experts. Schnittker replied that he had called attention to problems as early as mid-August 1972. Moreover, futures markets began to reflect some anxiety at that time, even if the magnitude and scope of the ensuing shortage were not fully appreciated.

William Poole commented that Schnittker had emphasized the supply side, and asked for Schnittker's assessment of the role of demand associated with the U.S. economic upswing, particularly insofar as rising incomes stimulate demand for meat. Schnittker agreed that rapid increases in incomes had been relevant; they led to the rare phenomenon of rising per capita consumption of beef in the face of significant price increases in 1971-72. Arthur Okun wanted some quantification of the income effect: If disposable income were now 2 percent lower than it is (say, as a result of a tax increase early in 1973), how much would that have restrained the rate of increase in food prices? Schnittker felt that any effects on the price rise would have been negligible, given short supplies and strong foreign demand.