ARE GOVERNMENT FARM PROGRAMS THE SOLUTION OR THE PROBLEM?

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The U.S. Department of Agriculture paid $50 billion to farmers during the 50 years 1930-80. Yet, real (adjusted for inflation) net farm income in 1982 is about the same as it was during the 1930s, admittedly today's farm income is spread among fewer units, but even on a per farm basis, 1982 real net farm income is the lowest in two decades. The current -8.1% rate of return to farm capital (U.S. Dept. of Agr., Agricultural Outlook, October 1982) may even be lower than during the depression. It's not an exaggeration to say we are in the midst of a farm depression.

Government intervention in the marketplace is at an all time high. Price supports apply to one-half of the crop output and to one-fourth of livestock output. Government stocks of wheat and corn in 1983 are near record levels. Direct government payments to farmers is near $4.5 billion and total farm program cost near $11 billion are estimated for 1982.

Government intervention in agriculture is not limited to the commodity markets. Government is heavily involved in the input markets. The Farmer's Home Administration holds $9 billion of the $77 billion of farm real estate loans — more than that held by all commercial banks. The Farmer's Home Administration and the Commodity Credit Corporation hold $27 billion of the $85 billion of the farm non-real estate debt — more than that held by the Farm Credit System (U.S. Dept. Agr. 1981). In fact, USDA loans to farmers are at record levels.

In addition to credit, government is a major supplier of electricity, irrigation water, flood and erosion control, crop insurance, education, research, and information to farmers. Also, the federal government owns 1% of the cropland and 33% of the pasture and range land. The irony of such pervasive government participation in the last bastion of the economist's dream of free competition during a conservative Republican administration is striking indeed.

Government in agriculture is not unique to the U.S. nor to this century. Governments have always considered food too serious a business to be left to farmers. The historian Hugh Thomas notes that the very beginnings of government sprang from concerns about agriculture. The first Emperor of China in 1200 B.C. came to office on a platform of resolving the agricultural problems of his day. Since the early middle ages, European civic authorities have regulated food.

Just as government programs are ancient, so are the responses of farmers and consumers to them. In 232 B.C., the Roman Consul Flaminus placed grain production under tight controls, reduced prices to farmers, and subsidized bread to consumers. Farmers shifted from grain to olive production and Rome had to import grain to placate the consumers.

Prior to 1933, the prevailing philosophy was that the market could do a better job of allocating agricultural resources than the government. Then came the colossal crash. Farm commodity programs were initiated to rescue farmers from the Great Depression. Fifty years later, the government is still using programs initiated during the depression to assist farmers' escape from a severe recession. The more things change the more they remain the same.

The diagnosis of agriculture's ills during the 1930s was that of low income attributed to over-production. The prescription was to limit production in order to raise prices higher than they otherwise would be. According to Paarlberg, farm supplies per person were no greater during the depression than before (1). He reasons that the cause of the farm problem was more likely the collapse of money and credit rather than over-production.

Could it be that for 50 years we have made the wrong diagnosis of agriculture's ills and prescribed the wrong medicine? Certainly, the record of continuing and costly government intervention in agriculture with real net farm income decreasing suggests that government may be the problem since it has not been the solution. It is particularly important for those of us in the economics profession, who are especially trained to wrestle with these issues, to take a hard look at government programs. I recognize we will be damned if we do. We should be damned if we don't.

The assessments of the farm problem by agricultural economists, unlike the farm policies themselves, have changed, perhaps too quickly. Accordingly, I will first trace the past 50 years' evolution of agricultural economists' assessment of the farm problem. Second, I will highlight nine lessons that point to a re-examination of present farm policies.

THE CHANGING DIAGNOSIS

Chonic Excess Capacity

Irrespective of the true causes or the proper definition, agricultural economists for 40 years contended that the basic farm problem was low income attributed to chronic over-production. This over-production thesis was most notably propounded by Professor Cochrane of the University of Minnesota, who in the early 1960s led an attempt by USDA to put tight production controls on wheat and feed grains (2). Although there were prominant agricultural economists who sharply disagreed with the use of production controls, — most notably Schultz and Johnson of the University of Chicago — the farm problem was largely predicated on the chronic over-production thesis — until the 1970s.

The Food Scarcity Syndrome

Beginning in the late 1960s, the pace of U.S. agricultural exports began to accelerate. The climax was the great Soviet Grain Deal or Grain Steal, depending upon your point of view. The export boom challenged the validity of chronic over-production thesis (3). Earl Butz, then Secretary of Agriculture and an agricultural economist, advocated "planting fence row to fence row." The scarcity syndrome, accompanied by rising prices, prompted housewives to picket supermarkets and triggered a number of unprecedented government interventions in agriculture during peace time. President Nixon imposed price ceilings on agricultural commodities and placed export embargoes on shipment of soybeans to Japan and wheat to the Soviet Union. The controversial Secretary Butz advocated "Food Power" as a weapon to counter OPEC's "Crude Power".

The Economic Report of the President for 1975 argued that excess production capacity was no longer a relevant issue. The Report argued that the excess labor in U.S. agriculture had disappeared and that the alleged excess crop land withheld by government programs during the 1960s was largely illusionary because it hadn't yet returned to production. In the meantime, the devaluation and floating of the U.S. dollar stimulated U.S. exports and prompted Ed Schuh to contend that the over-valuation of the dollar had contributed to the surpluses of the 1960s. The implication was that low farm income was due to international monetary policies rather than a penchant for farmers to chronically over-produce. Again in the 1980s an over-valued dollar may be the culprit.

Declining Productivity

Concern about the productive potential of U.S. agriculture surfaced in the 1970s. The 1975 National Academy of Science report on Agricultural Production Efficiency spoke in ominous tones about the "clouds on the horizon" caused by slowing productivity growth in agriculture. Climatologists warned that the 1960s weather was unusually favorable and that we should not continue to assume that we would be blessed with such favorable weather. Agronomists, in assessing the corn blight episode of 1970, warned that the narrow genetic base made the U.S. vulnerable to other similar crop disasters.

Meeting for Export Demand and Gasohol Needs

The mounting pessimism on the supply side was magnified by the optimism on the demand side. Agricultural exports continued to boom, a Presidential Commission stressed the need for expanded U.S. food assistance to needy nations, and visions abounded of food exports to feed a billion Chinese.

The potential of converting corn to gasohol made the demand outlook even more bullish. With the endorsement and inducement of government subsidies and to the bemusement of the bootleggers, legalized stills were constructed. Eventually some began to pick at the gasohol bubble. Engineers at Iowa State calculated that it took 350,000 BTU's of energy to produce a bushel of corn which in turn yielded only 220,000 BTU's of energy in the ethanol that it produced (4). Agricultural economists at Kansas State calculated that subsidies in excess of $10 per net bushel of corn marketed through gasohol would be required to make gasohol production profitable (Schrueben and Landkamer).

By the late 1970s, economists contended that excess capacity and low returns were no longer the major problems of U.S. agriculture. It was argued that exports had expanded the market for U.S. farm products, and that higher energy cost and inflation were restraining production to the extent that increasing agricultural productivity was the top priority.

Then the other shoe was dropped. On January 4, 1980, President Carter placed a partial embargo on grain shipments to the Soviet Union to punish them for invading Afghanistan. Market prices plummeted, signaling the end of the 1970s agricultural export boom. In 1981-82, the value of U.S. agricultural exports declined by 8%, the first year-to-year decline since 1969. Despite President Reagan's recent offer to sell the Soviets up to 23 million tons of corn and wheat, the Soviets are expected to buy only 10.5 million tons from the U.S. In fact, the Soviets are expected to buy more grain from Argentina than from the U.S.

Erosion, Energy and Urbanization

The end of the export boom coincided with other issues. Despite the mid-1970 view that the reserve of cropland was illusionary, the 50 million acre expansion of harvested cropland between 1970 and 1981 raised concerns about soil erosion and calls to preserve farm land. The report of the Agricultural Lands Commission, although privately questioned by the agricultural economists who served on its staff, issued dire warnings of the pending crisis of the loss of farm land by erosion and urbanization. Thus in the early 1980s, a thesis emerged that the slowdown of grain exports was a blessing in disguise because expanding grain exports had caused increased erosion, used large amounts of expensive energy, and exposed the U.S. economy to the vagaries of the international market. Suggestions were even made that farm exports be taxed in order to discourage them and to compensate for their adverse consequences.

LESSONS OF HISTORY

Those who do not learn from history are condemned to repeat its errors. Government intervention, including price supports, acreage reductions, export subsidies, and import restraints, have been tried off and on for 50 years. Is there any reason to believe that they will now succeed where they have failed before? Although I do not advocate a precipitious withdrawal of price supports and production controls, greater reliance on the market machanism and less on government might be in the best long run interests of farmers, consumers, and taxpayers.

My concern is that if we do not gradually, but steadfastly, move away from price supports and production controls on grains, we will soon discover that government programs have created the same

predicament for grains as they have for cotton. U.S. cotton production during 1928-30 averaged 14 million bales, and other countries' production averaged 12 million bales. U.S. cotton production averages 15 million bales and foreign cotton production averaged 50 million bales in the 1980s. Through the cotton program, the U.S. throttled cotton production and, by providing a price umbrella over the international market, encouraged foreign competitors to expand production. Similar results occurred for peanuts, tobacco and sugar.

Agricultural economists have long been chided for naive use of the perfectly competitive model of markets. We have also been just as naive in using a model of perfectly effective government intervention. We have too readily assumed that government has the ability to organize and conduct itself in some mystical way to make precisely the right self-correcting interventions at precisely the right times and thereby remedy the "imperfections" the market is creating.

Much has been learned over the five decades 1930-80 concerning the economics of agriculture and the economics of agricultural policy. Better future policies might result if we could learn from our past experiences. The 9 lessons worth emphasizing are:

1) The farm problem has two dimensions: the low level of income and the instability of income. Commodity programs are not effective ways to increase the incomes of low income farmers as the benefits of commodity programs are proportional to production with the large farmers reaping most of the benefits. Small farmers' output is not sufficient to escape poverty, even with support prices at very high levels. Adjustment programs aimed at facilitating the transfer of low income farmers into other occupations is the way to approach the low income problem.

2) Farmers respond rationally to economic incentives. They are remarkably efficient in allocating resources given the technology and information at their disposal. The farm problem is not caused by irrational or perverse tendency of farmers' economic behavior. Frankly, much of the 1982 dairy surplus problems stems from logical decisions by dairymen in response to a milk price support pledge made in Wisconsin during the heat of the 1976 Presidential campaign. Despite the biological nature of the production process in agriculture and the immobility of agricultural resources, U.S. farmers have made and continue to make substantive adjustments in response to economic stimuli. For example, in response to the higher grain prices in the early 1970s, farmers increased crop acreages from about 300 to over 350 million. Between 1966 and 1982, soybean production doubled and oats production was reduced one-half. Agricultural productivity continues to grow at a rapid pace.

3) The upward trend in per capita food demand in the U.S. has stabilized. The quantity of food consumed per person is about the same in 1982 as it was in 1972. It is limited by stomach capacity. Hence, future growth in food consumption in the U.S. will be due to population which is now growing at less than 1% per year.

4) The domestic food market is highly inelastic. Farm prices are volatile. The U.S. demand for food is such that it is almost priceless in scarcity and worthless in abundance. This means that small changes in supply or demand can lead to large changes in market prices. Hence, due to the unique character of the supply and demand, agricultural prices are volatile. Changes in government policies, weather, exports, etc. can wreak havoc in the marketplace and create waves that persist for years.

5) Controls are costly. Rigid production control programs such as that for peanuts, cotton, tobacco and sugar impose costs on farmers, consumers and taxpayers. Many of these costs are not as visible as a program payment, but they do have tangible economic consequences. By raising prices above the free market in both U.S. and international markets, they discourage consumption at home and encourage production abroad. They weaken our international competitive position and perpetuate production controls. They also provide a bad example for other countries which further shrinks our export markets.

6) Expanded exports are fundamental to the future of U.S. agriculture. Hopefully, we have awakened from the dream that the major challenge will be to keep pace with booming world food demand and to ration exports to our friends and withhold them from our foes. U.S. exports are facing increased competition. Foreign food production is expanding faster than U.S. food production. Exports must expand because domestic demand won't be sufficient for projected domestic supplies at prices acceptable to farmers. In order to expand output, the U.S. must continue to improve agricultural productivity and vigorously compete for foreign markets.

7) The government should not assume the full burden of coping with price instability unless and until it has perfect foresight. Volatility in farm prices is attributed partially to unstable economic and agricultural policies. A modest sized government grain reserve would add to stability. But, even under the best of circumstances, farm prices will not and should not be perfectly stable. Hence, farmers must manage their operations under price instability. They must reduce their risk by use of the future's markets, forward contracting, pooled sales, and diversification.

8) Information needs are expanding. Information is of little value in a stable and stagnant economy. Farmers can keep doing the same things in the same ways. Volatile markets and changing technologies expand the value of information. The provision of objective, up-to-date information is precisely one of the most important roles that government and the land grant colleges play. Studies consistently show that public and private investments in technology and information pay huge dividends to society.

9) The long-run potential looks good. One year does not make a trend — nor does two or three. Despite the upheavals of the 1970s and the depression of the early 1980s, I am optimistic about the potential of an expanding and prosperous economy provided the opportunities are not stifled by excessive regulation, over-zealous protectionism, and double-digit inflation. Nothing remains scarce for long provided producers and consumers have the opportunity to respond. The zigs and zags of economists' diagnoses of the farm problem are attributable to a considerable degree to their underestimation of the responsiveness of our economy to market incentives.

CONCLUSION

U.S. agriculture has made enormous contributions to the nation and the world. U.S. consumers are abundantly fed despite spending a small share of their disposable income on food. So, why all the fuss? Matters could be worse, much worse. U.S. farm policy problems are quite modest compared to the problems caused by government intervention in agriculture in the European Economic Community, Soviet Union, Japan and dozens of other countries.

The tragedy is that things could and should be much better for farmers, consumers and taxpayers. For farmers, less involvement of government would reduce the risks of having to rely on government as their political strength dwindles. For consumers, less intervention by government would prevent increases in the price of food caused by artificial scarcities and the capitalization of allotment values or rights to produce into production costs. For taxpayers, less government intervention would mean lower treasury expenditures on farm programs.

Reversing the direction of government agricultural programs is not for the timid or weak at heart. Present government programs are not without their benefactors. The transition to greater reliance on the market mechanism would have to be well-planned and unservingly pursued. Admittedly, in the present turbulent waters of severely depressed net farm income, massive supplies, and pervasive government programs, we must be very cautious about rocking the boat. But, part of our problem may be that we're paddling upstream.

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My thinking on this topic has been heavily influenced and reinforced by two excellent books (Paarlberg and Gardner).

End Notes

(1) See Paarlberg, pp. 21-22.

(2) Cochrane's views of the chronic excess capacity date back at least 35 years. For a more recent statement, see Cochrane and Ryan.

(3) For an expanded critique of the views in this and succeeding sections, see Coffey and Capps.

(4) This information is referenced in Paarlberg, p. 179.

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