Farm Price Supports and Economic Stability[2]

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THE PLACE OF AGRICULTURE IN THE GENERAL ECONOMY

The first step toward understanding the effects of farm price-support programs on economic stability is to get some conception of the relative importance of agriculture in the general economy.

Economic Size

In 1952, the gross national product for the whole United States economy was estimated at 348 billion dollars. A comparable measure for the farm economy itself—the so-called "gross farm product"—in the same year was 23.5 billion dollars, or slightly less than 7 percent of total GNP. In the same year, employment in agriculture averaged about 6.8 million workers, which was equivalent to 11 percent of the employed labor force. Various other measures of the economic size of agriculture could be used, but they would give results, as of 1952, somewhere between the two just mentioned.

Cross-Section Interrelationships

In 1947, nearly 10 percent of total cash farm receipts was derived from commodities exported to foreign countries. Another sizable flow, nearly 9 percent, was derived from sales to other farmers. Sixty-three percent was derived from sales for food use by our own people, and another 18 percent from sales of nonfood products and by-products for domestic use, including cotton, tobacco, and portions of various other commodities.

The great bulk of cash receipts from meat animals, dairy products, poultry and eggs, and fruits and vegetables is derived from sales for food use by the domestic population. Exports of these commodities are small. In contrast, a sizable proportion of the cash income from wheat, rice, cotton, and tobacco comes from the export market. Hence, in the absence of price supports, prices of these products are subject to impacts from all parts of the world economy.

Farm price-support programs contribute to economic stability mainly by offsetting or diverting the impacts upon farm income of changes in the demand for farm products. Changes in domestic consumer demand for such products must be transmitted through

the distributing, processing, and transportation industries before being translated into impacts upon farm income.

Marketing margins are notoriously rigid. Freight rates are changed only at considerable intervals. Processing costs include many utilities and materials, prices of which are quite rigid. Thus, food marketing charges are only slightly affected by changes in either the retail or the farm prices of food products. If prices and wage rates in other parts of the economy are rigid, any sudden drop in retail prices of food is transmitted almost dollar for dollar to the farm level.

Farmers buy from as well as sell to the rest of the economy. But, like marketing margins, production expenditures are relatively inflexible. Farm price supports operate at the cash receipts or gross income level. As net farm income, after production expenditures, averages less than half of gross income, a 10 percent drop in the price of a farm product may mean more than a 20 percent drop in the net income from a given volume of output.

In concluding this thumb-nail sketch of cross-section inter-relationships between agriculture and the rest of the economy, it may be helpful to consider some characteristics of the geographical distribution of farm income. As of 1952, in the New England and Middle East group of states agricultural income payments accounted for less than 2 percent of total income payments. The Southeast is a major farming region, but agriculture accounted for only 11.5 percent of its total income payments. The percentage was almost the same in the Southwest, which includes the important agricultural states of Texas and Oklahoma.

The Central region, including most of the Corn Belt and the Lake states, is an important and relatively prosperous farming area. However, in view of the great manufacturing and trading centers in the same region, agriculture accounted for only 7.1 percent of its total income payments. The Northwest region, including the Northern Great Plains and some of the Mountain states, shows the highest proportion of agricultural to total income payments among the regions listed—20.3 percent. The Far West shows about the same relation between agricultural and total income payments as does the nation as a whole—6.4 and 6.7 percent respectively in 1952.

Except for the Northwest region, these figures suggest that the immediate impact of changes in farm income upon other sectors of the economy would be rather small. However, in a few individual states farm income runs as high as 20 to 30 percent of the total.

A drop in farm income in an area directly affects the towns-people in that area who sell goods and services to farmers. The impact of reduced purchasing power in the area is then diffused

among the larger distributing and manufacturing centers which supply the various goods used in the area. The effects of a localized drought or flood upon farm incomes might cause scarcely a ripple in the big wholesaling and manufacturing centers. A substantial drop in the price of wheat, on the other hand, could reduce the incomes of farmers in a few neighboring states by 200 or 300 million dollars. Such a drop could cause appreciable reduction (as much as 5 percent) in *total* income payments in an area covering several states. While additional income effects would radiate into other regions, their percentage impacts could be small.

Dynamic Interrelationships

If we disregard the three major export crops, cotton, wheat, and tobacco, cash farm income from all other commodities bears a close relationship to disposable personal income. Disposable income is less closely associated with cash receipts from the export crops; when the value of exports of these commodities is taken into account, the relationship is considerably improved.

During 1922-41, a year-to-year change of 10 billion dollars in disposable income in the United States was associated with an average change of more than a billion dollars in cash receipts from farm marketings. But production expenditures also tended to change with cash receipts. Cash outlays for production requisites of nonfarm origin changed about 300 million dollars with year-to-year changes of a billion dollars in cash receipts. This association may be regarded in large part as a "back-effect" of farm income upon the nonfarm economy.

As an average during 1922-41, the realized net income of farm operators declined nearly 700 million dollars in response to a year-to-year decrease of a billion dollars in cash receipts from marketings. This also had its back-effects on the nonfarm economy through increased expenditures on goods and services for family living as well as increased net investment in farm buildings and equipment.

If we try to trace the ultimate effects on the economy of an initial decrease in consumer income, we become involved in a series of approximations. The "first round" decrease in farm cash receipts leads to a secondary decrease in nonfarm income (perhaps no more than 10 percent of the initial one). This leads to a secondary decrease in farm income, which produces a third-order effect on nonfarm income (perhaps no more than 1 percent of the initial decrease).

But there is another, and more important, stream of influences. The initial contraction in consumer income means reduced outlays

for nonfarm goods and services. This curtailment leads to a decrease in nonfarm employment and income, which reinforces the original one and leads to a further (but smaller) contraction in expenditures. If, for example, a cut in defense spending and private investment reduced the rate of income payments directly by 10 billion dollars, the final decrease in the level of consumer income might be around 20 billions. If so, farm cash receipts would tend to decrease by twice the amount suggested by the initial impact, rather than by 1.11 times that amount as suggested by considering back-effects through farm income only. This is simply the "multiplier" mechanism, made familiar by Keynes.

Demand and supply relationships for individual commodities also need to be considered in the analysis of farm price supports. For example, the main determinants of retail price for a perishable commodity are the supply available for consumption and the disposable income of consumers. Marketing margins are generally established by competition between marketing agencies, and the farm price is equal to the retail price minus marketing charges. The farm price of United States cotton (in the absense of price supports) will be determined by the levels of demand and supply in the United States and also in other countries. The impacts of changes in economic activity are transmitted into the feed grain economy via disposable income, retail prices of livestock products, changes (if any) in marketing charges on livestock products, and thence to the farm prices of livestock products, which influence the demand for feed grains. The other main factors influencing farm prices of feed grains are weather, carry-over stocks, and the numbers of grain-consuming livestock on hand. The resulting price of feed grains influences the quantity of grains fed to livestock and the number of livestock which are produced or carried over into the following season.

Farm price-support programs attempt to avert the "normal" consequences of free market demand and supply structures such as those mentioned above. They act to maintain farm prices and cash farm income in the face of adverse changes in either supply or demand conditions.

FARM PRICE AND INCOME SUPPORTS AS DEFENSES AGAINST DEPRESSION

As the legislative revisions made in 1954 are only now beginning to affect prices, and as we are all more familiar with the 90 percent program, let us start with it.

The Price Support Program Prior to 1955

The six so-called basic commodities, cotton, wheat, corn, tobacco, rice, and peanuts, were required to be supported by means of non-recourse loans at 90 percent of parity through the 1954 crop year. Parity prices for wheat, corn, cotton, and peanuts were based on the old formula; those for rice and tobacco, and for nearly all "non-basic" commodities, were already on the modernized formula. In 1953, the six basic commodities accounted for 25 percent of total cash receipts from farm marketings.

Price support was also mandatory for the "designated nonbasic commodities," which included dairy products, wool, mohair, tung nuts, and honey. In 1953, cash receipts for this group of commodities amounted to 14 percent of the total.

During 1953, several other nonbasic commodities were accorded price support. Under the law, the Secretary of Agriculture may elect to support nondesignated nonbasic commodities at any level from 0 to 90 percent of parity. The nonbasic commodities (other than "designated") which were supported in 1953 accounted for 1.8 billion dollars, or 6 percent, of total cash farm income.

Altogether, commodities which received direct price support in 1953 accounted for 14 billion dollars, or 45 percent, of total cash receipts from farm marketings. The remaining commodities, accounting for 55 percent of cash receipts (17 billion dollars), were not directly supported.

A large part of total price-support activity has been directed toward storable crops, particularly wheat, cotton, and feed grains. Once a fixed dollar-and-cents price support has been announced, the volume of price-support activity on the forthcoming crop depends upon variations in yields, in the foreign supply and demand situation, and in domestic demand, and upon various minor factors which are not readily measurable.

Year-to-year fluctuations in crop yields, due mainly to weather, often overshadow the effects of year-to-year changes in consumer demand. Sudden reductions in export demand have also contributed substantially to stock buildups at times. If such reductions, or high crop yields, happen to coincide with an economic recession, the importance of the recession itself as a factor in the accumulation of price-support stocks tends to be exaggerated. Such a coincidence, as during 1948-50, leads in turn to overestimation of the contribution of the price-support program to offsetting the effects of recession. While Commodity Credit Corporation inventories and loans out-

standing increased 2.5 billion dollars from June 1948 to February 1950, at least half of this was due to factors other than the recession.

Operation of the 90 Percent Price-Support Program During a Severe Recession

We shall now proceed with an illustration of how the price-support program just described might operate during a severe economic recession. To simplify the illustration, we shall make several assumptions: (1) average weather in each year of the recession—hence, average crop yields except for possible effects of the price-support program itself; (2) no sharp changes in the production of crops in foreign countries or in the level of demand in foreign countries except as this may reasonably be related to a domestic economic recession; and (3) continuation of price-support commitments for the same commodities and at the same percentages of parity throughout the recession as at the time of its assumed beginning. The recession we assume to be about as severe as seems within the range of possibility in view of the various built-in stabilizers in the economy today, and the greater readiness of government to engage in remedial action.

The over-all results of the projections based on these assumptions follow: At the bottom of the recession, farm prices are down 21 percent without a support program as against 12 percent with price supports. Without supports, farm cash receipts are estimated to decline by more than 6 billion dollars annually; with supports, the decline is estimated at about 4 billion dollars—that is, cash receipts would be at least 2 billion dollars higher with supports than without them. With production expenditures probably not much different under the two programs, the net incomes of farm families would also be about 2 billion dollars higher (or more precisely, would have dropped 2 billion dollars less from prerecession levels) than in the absence of price supports. This difference would represent roughly 20 percent of net farm income.

In accomplishing this degree of income support, the Commodity Credit Corporation would significantly increase its outlays for price-support stocks. At the recession trough, about 5 percent of the current volume of farm marketings would be going into price-support stocks, despite marketing quotas at minimum levels for the basic cash crops.

Effects of the 90 Percent Program Upon the Course of the Recession

Obviously, a price-support program affects the time path of farm prices and incomes during a recession. But what a farm price-

support program contributes, directly or indirectly, to stability in the remainder of the economy is a more difficult question.

I do not claim to have a satisfactory answer myself. But I believe I can lay out some of the relevant considerations, and perhaps give a rough idea of the effect of the farm price-support program upon various economic magnitudes.

PATHS OF INTERACTION. The farm price-support program has three direct effects: (1) it raises the average level of prices received by farmers; (2) it slightly reduces farm output, and (3) it reduces the commercial utilization of farm products.

Suppose, for example, that the direct effect of a price-support program is to increase farm prices by 10 percent. If marketing margins remain constant, this will increase retail food prices about 4 percent, using 1955 marketing margins. As retail food prices carry a weight of 30 percent in the consumer price index, that index will rise 1.2 percent.

The consumer price index plays an important role in some wage contracts, and it is widely used as a talking point in wage disputes. Wage rates in turn influence gross national product and the retail prices of nonfood products.

An increase in the consumer price index thus increases wage rates, which increase nonfood prices, which enter the consumer price index with a weight of 70 percent. Hence, the total effect upon the consumer price index of an increase in farm prices consists of the direct influence on food prices plus this more roundabout effect.

An initial increase of 10 percent in prices *received* by farmers leads directly, through prices of purchased livestock, feed, and food products, to something like a 1.5 percent increase in the index of prices *paid* by farmers. A much smaller indirect effect also operates through the consumer price index, wage rates, and retail prices of non-food products. Under the present price-support program, the direct influence of a 1 percent increase in the prices paid index would apply to products accounting for only 45 percent of cash farm income; hence, the direct effect on the average level of all farm prices would be only 0.45 percent. In addition, price-support levels for feed grains would have some influence upon the unsupported prices of meat animals, poultry, and eggs.

The chains of influence just noted tend to raise disposable personal income, particularly that of nonfarm people. An increase in disposable income raises prices of those farm products which are not

supported and market supplies of which at any given time are fixed; it also increases commercial utilization (but not prices) of farm products which are in surplus at their applicable support prices.

The net increase in CCC stocks as a result of the price-support program represents an injection of money from outside of the private economy. It is equivalent to a purchase of goods by the federal government, with, in the practical situation, no simultaneous increase in government revenue.

If we consider these various effects upon the nonfarm economy, it appears that if the price support initially or directly increased farm prices by 10 percent, the final level of farm prices would be about 12 percent higher than it would have been in the absence of a price-support program.

ESTIMATED EFFECTS. The estimated decline in farm prices during a recession similar to that assumed earlier in this paper thus is only half as large as that experienced in the absence of price supports. At the recession trough, farm prices with the support program are estimated to be 13 percent higher than farm prices without support. The index of prices paid by farmers is indicated to be more than 2 percent higher as a result of the price-support program. This would mean a roughly similar increase in production expenditures and a corresponding reduction in the net income differences resulting from the farm prices shown. The parity ratio would decline about 13 points in the absence of price support, and about 6 points under the support program. With price support the parity ratio would increase slightly in the third recession year, reflecting the delayed action of feed grain supports upon livestock production and prices. The consumer price index would be 2.5 or 3 percent higher with the price-support program than without it.

This analysis indicates a gross national product at the recession trough about 6 million dollars higher with the price-support program than with no supports. While this is a substantial sum, it is only 8 percent of the assumed total decline in GNP from peak to trough in the absence of a price-support program.

Finally, at the trough, disposable income is projected as 4 billion dollars higher with the present price-support program than in the absence of price supports. This is a little more than 10 percent of the estimated decline in the absence of price supports. Of the 4 billion dollar increase, 2 billion or so may accrue to nonfarm people, while the other 2 billion would accrue to farm operators.

Although we have had to make several assumptions which cannot be tested, I believe that this analysis defines reasonably well the

net effect of the pre-1955 farm price-support program upon the course of an economic recession. Under the recession pattern assumed here the 90 percent program might reduce the drift in the general retail price level by as much as 30 percent; it might reduce the decline in GNP and disposable personal income by something like 10 percent; and it would reduce the drop in farm prices (which it is specifically set up to do) by 50 percent as compared with the level expected in the absence of a price-support program.

EFFECTS OF ALTERNATIVE FARM PROGRAMS UPON THE COURSE OF A RECESSION

Flexible Price Supports: The Agricultural Act of 1949

Contrary to some rather widespread opinions, price supports for most of the basic crops under the Agricultural Act of 1949 were not low nor, in most cases, were they extremely flexible. Under the 1949 act, tobacco was to be supported at 90 percent of parity in any year in which marketing quotas were proclaimed. In the case of cotton, even if certain special legislation not part of the 1949 act were eliminated, the price-support level would rarely fall below 90 percent of parity, and then, as a rule, by rather small amounts. The provisions for corn were more nearly in accord with the popular conception of flexible price supports. However, the then-record supply of corn in 1953 would have required support at not less than 82 or 83 percent of parity. Only in the case of wheat was there much likelihood that supports would fall as low as 75 percent of parity.

The flexibility which might be provided by large supplies resulting from bumper corn yields was at least partially thwarted by the forward-pricing provision of the act. If a minimum dollar-and-cents support price for corn were announced before planting time, based on the assumption of average yields, the support price for that crop could not subsequently be lowered to take into account favorable weather and high yields. Hence, if we assume the Agricultural Act of 1949 to be in effect and functioning well according to its internal logic just before the onset of a recession, farm prices would fall only a little faster and little further than under the program of support for basic commodities at 90 percent of parity.

The effects of the Agricultural Act of 1949 would be very similar to those of the 90 percent program except that the differences from "no program" would be only about four-fifths as large. For example, at the recession trough, the index of prices received by farmers would be estimated at about 220 under the 1949 act, compared with

225 under the 90 percent program and 199 in the absence of price supports. (The price index just prior to the recession was assumed to be 252 in each case.)

Other differences would be roughly similar. At the low point of the recession, cash receipts from farm marketings might be approximately 0.5 billion dollars lower under the 1949 act than under the 90 percent program, *assuming that both programs had been in operation prior to the beginning of the assumed recession and that they had resulted in precisely the same average prerecession levels of prices, marketings, and income.*

Effects on the General Economy of Shifting from the
90 Percent Program to an Alternative Program

Changes under the 1954 act did not affect the levels of price support for basic crops until the summer or fall of 1955. The President's farm program, as transmitted to Congress in January 1954, would have resulted in price supports for cotton, wheat, and corn, as a group averaging perhaps 7 or 8 percent below the 1954 level as of 1955 and perhaps 10 percent lower than the 1954 level as of 1956. The margin would probably average little or no greater than this in 1957 and later years. Thus, as compared with an extension of the 90 percent program for basic crops, the President's farm program might have involved drops in farm income on the order of 250 million dollars in 1955 and perhaps another 250 million dollars in 1956. The 1956 differential might have been approximately maintained in the year or two immediately following. Compared with the effects of a severe economic recession, which in the absence of farm price supports could amount to as much as a 5 or 6 billion dollar decline in cash farm income, the magnitudes involved in a shift from the 90 percent program to the President's farm program would have been quite small.

It cannot be denied, however, that either the President's program or the Agricultural Act of 1949 would have led to a significantly lower level of cash farm income from wheat than under the 90 percent program. The differential effects on cash income from cotton and from feed grains and livestock products would have been small — perhaps almost negligible.

As compared with the 90 percent program, an abrupt shift to the Agricultural Act of 1949 could have resulted in additional successive impacts in the autumns of 1955 and 1956 of at most half a billion dollars each year. The impacts would have been severe in the specialized wheat areas. However, the consequences for the rest

of the economy could scarcely have exceeded a reduction of a billion dollars or thereabouts at the GNP or disposable income level.

The coincidence of such a transition with the onset of a recession might have led some "lay economists" to argue that the transition caused the recession. However, the analysis presented here indicates that this is a much greater effect than can be attributed to a change in the farm price-support program. Its initial effect would do very little to aggravate a recession already under way and its consequences, except for producers of the crops directly affected, would speedily be lost if forces originating in the nonfarm sectors of the economy were sufficient to carry the recession to any considerable depth.

CONCLUSIONS

The primary objective of farm price supports is to support farm prices of specified commodities and the incomes which producers derive from them. How much can a farm price-support program contribute to general economic stability? This depends initially upon the economic size of agriculture relative to the general economy. Agriculture produces 7 percent or less of the gross national product. Unless agriculture has some very special characteristics other than size, it is difficult to see how agricultural programs can carry more than 7 percent or so of the total burden of stabilizing the economy.

Farm price supports operate at the cash receipts level. Cash receipts are equal in size to 8 or 9 percent of the gross national product and are conceptually a little "grosser."

Direct price supports are in effect now on commodities accounting for less than 50 percent of cash receipts, although the direct price supports for feed grains also have an indirect price-supporting effect for livestock products. Roughly speaking, these two sorts of influences would be equivalent to the effects of direct price supports on 4 or 5 percent of GNP.

Differences in the alternative farm programs now under discussion involve fractions of the range between 75 and 90 percent of parity on some of the directly supported commodities. In other words, they involve fractions of 1 percent of GNP. These differences are important to producers of wheat and certain other farm products; they are relatively unimportant from the standpoint of the economy as a whole.

I believe most agricultural economists would have credited price-support programs with larger effects upon the general economy than

I have suggested here. However, I am definitely not arguing that price support programs are of negligible importance as "built-in stabilizers." At the Conference on Policies to Combat Depression, several other papers paralleled mine in this respect: They concluded that the particular economic area they were discussing was equivalent to only 5 or 10 percent of GNP and that programs directed to that area could not do a very large share of the total stabilization job. But if the effects of programs in, say, five such areas are additive, collectively they may accomplish a third or a half of the total job. If there are important interactions or secondary effects, they may accomplish still more.

The price-support program alone cannot avert recessions. But as one member of a stabilization team it can certainly help.

PART IV

*Problems of Low-Income People
in Rural Areas*