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Approach H

LETTING THE FARM INCOME PROBLEM WORK ITSELF OUT IN THE OPEN MARKET

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We have assumed an open market would mean that all state and federal programs primarily designed to increase and stabilize farm prices would be discontinued. We have also assumed that: (1) present stocks of commodities now held by the Federal Government would be eliminated so they would not depress the domestic and foreign market, and (2) reasonably high and stable employment would prevail. The short-run period refers to the first three or four years after the programs have been discontinued.

EFFECT ON INPUTS USED IN PRODUCTION

In the short run the aggregate use of inputs by farmers would decrease, or at least would not increase because of: (1) greater risks, (2) lower product prices, which are conducive to less intensive production practices, and (3) reduced income and credit with which to purchase inputs. The immediate reduction would take place in the inputs requiring cash expenditures and used in the production of commodities for which controls and price supports have been discontinued. Lime, fertilizer, seeds, sprays, and high energy feeds used in milk production would fall into this category. Since 1950 the rate of increase in fertilizer use has declined, and the total quantity used in 1956 was less than in the previous year. Changes in the use of inputs such as land, machinery, and farm facilities would not be very great in the short run because of their longer life and the probable lack of alternative profitable uses for these resources.

In the long run, investments in farm machinery and other fixed inputs would tend to be reduced. Since 1948 the rate of net investment in farm machinery has been decreasing and in 1956 was at the lowest level since 1947. Without the certainty furnished by price supports, purchases of farm machinery would have declined even more. Total land use would change little although substitutions would take place in the

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kinds of crops grown. For example, the total acreage used for crops under controls in 1955 was practically the same as the amounts used in the periods 1945-49 and 1952-53. The slight decrease that did occur was attributed to an increase in crop failures.

EFFECT ON TECHNOLOGY IN AGRICULTURAL PRODUCTION

The race for development of new technology would continue, but the rate of adoption would slacken in the short run. Farmers would have less money and credit to finance technology. Competition between producers would be keen, and producers that were unable to adopt new technology would have to compete under a disadvantage.

EFFECT ON FARM OUTPUT

Growth in farm output would continue in spite of stable or decreasing inputs because of improved production technology, but the rate of increase in total output would be slower. Bonnen estimates that at the level of 1955 prices total agricultural output could easily be increased by 30 percent between 1955 and 1965. The rate of increase in yields, however, might be reduced as fertilizers, irrigation, and other yield increasing inputs were used to a lesser degree.

An open market would also cause changes in patterns of agricultural production that are now set by acreage controls and marketing quotas. For example, tobacco acreage allotments have frozen the production pattern in certain areas and have also prevented shifts in types of tobacco grown within restricted areas. Where controls were relaxed the production shifted to other areas. Acreage controls have held cotton production in the Southeast when in the interest of economic efficiency, it should have shifted more rapidly to the Delta and the West.

EFFECT ON MARKETS FOR FARM PRODUCTS

In the short run the market for most products now under agreements or orders would be less stable. However, in the long run markets for many products might be stabilized through more rapid growth of integrated operations and stronger farmer bargaining groups.

Prices of agricultural exports such as wheat and cotton would be more nearly equated with world market prices. Considerable quantities of these commodities would move into world trade though probably less than exported under present subsidy programs. However, most countries practice state trading or otherwise influence trade, and they would lower the prices of their commodities to maintain their share of the world market. Wheat exports would not likely reach the high level during 1956 and 1957.

EFFECT ON PRICES AND INCOME

Estimates of the probable decline in aggregate farm prices and income are few and vary rather widely. Brandow estimated that open market farm prices under 1954 conditions would have averaged about 14 percent less than actual prices. Receipts from farm marketings would have been reduced 7 percent for livestock, 18 percent for crops, and 12 percent for all farm products collectively. Such a reduction in receipts from marketings would have decreased net income about one-fourth. This estimate was based on expected short-run adjustments.

Cochrane estimated that in an open market prices would have declined about 50 percent instead of 20 percent during 1951 and 1955. Cochrane concedes that his model may exaggerate the decline in the price level, under open market conditions.

Wilcox estimates that an open market would produce a decline of 2 to 5 billion dollars, or 25 to 40 percent, in net farm income as compared with 1956-57. He also estimates that without government price programs net farm income on a year-by-year basis would have been 20 to 54 percent lower during the period 1937-39, 14 to 42 percent lower in 1940-42, 24 to 34 percent lower in 1948-49, and 28 percent lower from 1952 to date (see Table 1).

The short-run income effects would vary widely among groups of farmers, but even where the production of commodities was not affected, their prices would tend to decrease as prices of competing commodities declined. Producers on large units would suffer greater income losses, but incomes would be reduced also on inadequate farm units. Cotton producers on small farms might be able to increase their total income by using underemployed family labor to produce more acres of cotton, and the most favorably situated large cotton growers might gain more from greatly expanded acreage than they would lose from lower prices. Milk producers would suffer immediate income losses, and the milk market would become less stable.

Livestock producers would suffer substantial losses because of increased livestock production. Wheat acreage would increase initially if quotas were dropped, and prices would decrease sharply.

The long-run effect would be increased competition between specialized producing areas. The trend in most areas would be toward specialized farming. The gap between low-income and high-income producers would widen. Eventually enough people would leave agriculture by one means or another to bring satisfactory incomes to most of those remaining in agriculture.

Fruit and vegetable producers would be deprived of the use of marketing orders and agreements. However, they might be able to achieve satisfactory results through private marketing organizations and integrated operations.

TABLE 1. SELECTED PRICE SUPPORT ACTIVITIES AND REALIZED NET FARM INCOME, 1937-56¹

| Calendar Year | Section 32 Purchases | Increase in CCC Loans and Inventories | Columns 1 and 2 x 2.5 ² | Government Payments | Rough Estimate: Contribution of Price Support Activities Total Columns 3 and 4) | Realized Net Farm Income | Contribution of Price Support Activities as Percentage of Net Farm Income (Column 5 ÷ 6) |
|---------------|----------------------|---------------------------------------|------------------------------------|---------------------|---|--------------------------|--|
| | Millions | Millions | Millions | Millions | Millions | Millions | |
| 1937 | \$ 35.2 | \$ 241.1 | \$ 690.7 | \$367 | \$1,057.7 | \$ 5,232 | 20 |
| 1938 | 211.6 | 523.5 | 1,837.7 | 482 | 2,319.7 | 4,273 | 55 |
| 1939 | 143.9 | 105.4 | 623.2 | 763 | 1,386.2 | 4,394 | 32 |
| 1940 | 226.1 | 215.9 | 1,105.0 | 723 | 1,828.0 | 4,289 | 43 |
| 1941 | 196.3 | — 71.6 | 311.7 | 544 | 855.7 | 6,153 | 14 |
| 1942 | 112.0 | 261.0 | 932.5 | 650 | 1,582.5 | 8,825 | 18 |
| 1943 | 63.4 | — 77.8 | — 36.0 | 645 | 609.0 | 11,875 | 5 |
| 1944 | 24.9 | — 88.1 | — 158.0 | 776 | 618.0 | 12,217 | 5 |
| 1945 | 19.2 | — 692.3 | —1,682.7 | 742 | 940.7 | 12,850 | — 7 |
| 1946 | 78.4 | — 38.9 | 98.7 | 772 | 870.7 | 15,000 | 6 |
| 1947 | 51.2 | — 120.5 | — 173.2 | 314 | 140.8 | 17,191 | 1 |
| 1948 | 75.6 | 2,013.1 | 5,221.7 | 257 | 5,478.7 | 15,943 | 34 |
| 1949 | 96.6 | 1,161.6 | 3,145.5 | 186 | 3,331.5 | 13,673 | 24 |
| 1950 | 46.0 | —1,718.6 | —4,181.5 | 283 | —3,898.5 | 12,857 | —30 |
| 1951 | 37.5 | — 339.9 | — 756.0 | 285 | — 471.8 | 14,802 | — 3 |
| 1952 | 82.3 | 1,674.1 ³ | 4,391.0 | 275 | 4,666.0 | 14,256 | 33 |
| 1953 | 177.6 | 2,505.6 ³ | 6,708.0 | 213 | 6,921.0 | 13,880 | 50 |
| 1954 | 58.9 | 1,205.0 ³ | 3,159.7 | 257 | 3,416.7 | 12,190 | 28 |
| 1955 | 179.1 | 1,763.7 ³ | 4,857.0 | 229 | 5,086.0 | 11,581 | 44 |
| 1956 | 171.1 | 1,125.7 ³ | 3,242.0 | 554 | 3,796.0 | 12,070 | 31 |

¹See preceding text and footnote 2 with respect to limitations of these data as an accurate measure of the economic effect of price support activities. Section 32 purchases and increase in CCC loans and inventories on fiscal year basis lagged 6 months in relation to farm income and government payments. Section 32 purchases taken from USDA, "Realized Cost of Programs Primarily for Stabilization of Farm Prices and Income," in 83rd Congress, 2nd session, Senate farm program hearings before Committee on Agriculture and Forestry, Part 1, January 17 and 22, 1958, p. 42. Net increase in CCC loans and purchases computed from USDA Commodity Credit Corporation charts, November 1957, Tables 5A, 6A, and 6B. Government payments and realized net farm income taken from USDA, "Agricultural Statistics," 1956 and 1942, pp. 470 and 660.

²The sum of Columns 1 and 2 is multiplied by 2.5 since statistical analysis indicates that farm income is increased about \$2.50 for each \$1 reduction in farm products supplied to commercial markets when farm products are in ample supply.

³Net removal of farm commodities from commercial markets by CCC operations (computed from USDA data).

SOURCE: Wilcox, Walter W., *Journal of Farm Economics*, August 1958, p. 564.

EFFECT ON LABOR RESOURCES IN AGRICULTURE

In some instances price supports have held labor in agriculture because of a guaranteed price for the commodities produced. Acreage allotments have also often tended to restrain the migration of labor because if the acreage allotments were not used they were either reduced or taken away from the farm to which they were assigned. However, the influence of these factors has not been sufficiently strong to be reflected in the statistics that measure migration trends. Bishop suggests that government programs in general have not impeded migration from agriculture. During periods when incomes of farm families were increasing and government programs were in effect labor in agriculture was still underemployed, and farm people continued to transfer to nonfarm employment. Likewise, labor is retained in agriculture during periods when agricultural incomes are falling.

EFFECT ON PRICE OF FARM LAND

During the period 1954-1957, when price support programs were instrumental in bolstering farm prices and income, the index of farm real estate values increased from 128 to 147. During this period the index of realized returns per hour to all farm labor and management decreased from 81 to 77, according to Wilcox.

An open market would lower prices and increase risk in farming, which would have unfavorable effects on land prices. However, the value of land for adding to existing units would remain high.

SUMMARY AND IMPLICATIONS

Short-Run Effects

1. Fewer inputs would be used in production than under supports.
2. A large number of farmers would slacken their rate of adoption of new technology.
3. Aggregative total agricultural output would increase but at a slower rate than if government price programs were in effect.
4. The acreage of crops now restricted by acreage controls would increase.
5. Prices and income to most producers would be reduced but the effects would vary widely among groups of farmers.
6. Prices between corn, wheat, and other feed grains would tend to equalize.

7. Feeding of livestock and competition between livestock producers would increase.
8. Milk producers would experience more price fluctuation and lower incomes without the assistance furnished by marketing orders and government purchasing programs.
9. Cotton acreage per farm would increase and production would rapidly shift from the Southeast to the Delta and the West despite lower prices.
10. Poultry producers would face more competition from lower priced livestock products but would have cheaper feed.
11. Fruit and vegetable producers would be least affected because many of them have or can develop strong highly integrated marketing organizations.
12. Wheat acreage would increase, and income to wheat producers would fall considerably below present levels.

Long-Run Effects

1. Development of new technology aimed at reducing per unit cost of production would continue, but the rate of adoption would slacken.
2. The number of farm commodity organizations would grow.
3. Incomes of efficient producers of most commodities would increase from short-term levels, and the gap between the level of income of efficient producers on adequate size farms and inefficient producers on inadequate size farms would widen. An increasing number of the latter group would leave agriculture if nonfarm employment opportunities were available.
4. Vertical integration and contract farming would increase in many commodity lines.
5. The decrease in the number of farms and the increase in size of farms would continue.

BIBLIOGRAPHY

- Benedict, Murray R., and Stine, O. C., *The Agricultural Commodity Programs: Two Decades of Experience*, The Twentieth Century Fund, New York, 1956.
- Brandow, George E., "A Modified Compensatory Price Program for Agriculture," *Journal of Farm Economics*, November 1955.
- Cochrane, Willard W., *Farm Prices—Myth and Reality*, University of Minnesota Press, St. Paul, 1958.

North Central Farm Management Research Committee, *Agricultural Adjustment Problems in a Growing Economy*, Iowa State College Press, Ames, 1958:

1. Bonnen, James T., and Cromarty, William A., "The Structure of Agriculture," pp. 109-127.
2. Brandow, George E., "Current Programs in Relation to Needed Adjustments," pp. 236-48.
3. Cochrane, Willard W., "Some Additional Views on Demand and Supply," pp. 94-106.
4. Johnson, D. Gale, "Labor Mobility and Agricultural Adjustment," pp. 163-72.
5. Johnson, Sherman E., and Barton, Glen T., "Effects of Technological Research and Education," pp. 39-54.

Policy for Commercial Agriculture: Its Relation to Economic Growth and Stability, Statements before Subcommittee on Agricultural Policy, Joint Economic Committee, Congress of the United States, November 22, 1957:

1. Bishop, C. E., "The Mobility of Farm Labor," pp. 437-47.
2. Bonnen, James T., "American Agriculture in 1965," pp. 145-56.
3. Cochrane, Willard W., "The Case for Production Controls Restated," pp. 712-24.
4. Farnsworth, Helen C., "Wheat Under Multiple Pricing: A Case Study," pp. 556-84.
5. Hoos, Sidney, "The Contribution of Marketing Agreements and Orders to the Stability and Level of Farm Income," pp. 317-27.

Wilcox, Walter W., "The Farm Policy Dilemma," *Journal of Farm Economics*, August 1958.