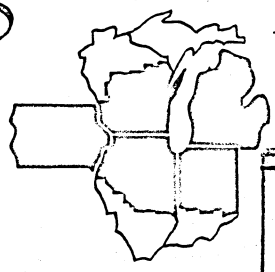
Federal Reserve Bank of Chicago - -

Agricultural Letter



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PRICE SUPPORT LEVELS for farm commodities may have any of several objectives, each of which has its advocates. Some of the major proposals over the years have been: to achieve cost of production, to re-establish favorable historical relationships between prices received and prices paid by farmers, to provide returns on farm labor and capital equivalent to that earned elsewhere in the economy, to set "floor prices" somewhat below "normal" market prices to protect against large price declines. Each of the price support objectives is difficult to define in specific terms. Furthermore, it is not easy to develop and put into effect workable programs to achieve the desired goal.

The cost of production objective is subject to the greatest criticism—the circular reasoning in determining what items are to be included in "costs" (e.g., the "cost" of land depends on the value of land which is determined largely by capitalizing the expected returns to land). Furthermore, the range of costs is quite wide from farm to farm and year to year. Nevertheless, costs of producing commodities must be given consideration in any approach to setting prices for them.

Some figures on costs of production on family-size intensive grain farms in central Illinois have been reported recently by the University of Illinois. While these farms cannot be considered typical and the area is one of highly productive soils, this study helps to throw light on some of the possible impacts of price supports. The University reported the cost of growing a bushel of corn on these farms was 87 cents and of a bushel of soybeans was $1.71. These costs include cash expenses, depreciation and labor on the basis of 1959 production practices and prices, as well as a 4 per cent return on the current value of farm land in that area.

Crop Costs and Returns, Central Illinois

		Corn	Soybeans	Oats	Wheat
Yield per acre, average 1955-60	(bushels)	88.9	32.4	62.5	39.2
Average price received, 1959-60	per bushel	$ 1.06	$ 2.05	$ .64	$ 1.82
Return	per acre	94.23	66.42	40.00	71.34
Variable costs (fertilizer, seed and crop expenses)	per acre	21.60	7.71	8.55	17.34
Overhead costs (machinery, buildings, taxes)	per acre	28.63	21.93	17.18	20.19
Labor costs	per acre	8.77	7.51	4.49	4.96
Land charge at 4%	per acre	18.40	18.40	18.40	18.40
TOTAL COST	per acre	77.40	55.55	48.62	60.89
NET RETURN TO MANAGEMENT (profit)	per acre	16.83	10.87	-8.62	10.45
	per bushel	.19	.34	- .14	.27

One implication of these figures is that a price support for corn above 87 cents will encourage further intensification of efforts to obtain higher yields on these farms. This will be moderated somewhat in the 1961 program since it provides support for only the average amount produced per acre in 1959 and 1960, but even with a market price substantially below the $1.20 support price there will still be incentive for increasing output per acre.

Another implication of these cost figures is that an increase in price support for corn does not necessarily bring a corresponding and immediate rise in net income when it is coupled with acreage retirement. Since the overhead costs, such as taxes and depreciation on machinery and buildings, will continue even if these acres are not cropped, these costs will have to be borne by the production on the remaining acres. On the farms studied, overhead costs (excluding labor and returns on land value) were more than one-third of the total costs. If labor and returns on land value are included, they account for two-thirds of the total cost of producing a bushel of corn.

To help offset these overhead costs, the Government is making payments for land retired from production. If payments were not made, the required 20 per cent reduction in corn acreage to qualify for price support in 1961 would increase overhead costs per bushel on the remaining acres nearly equal to the 14 cent a bushel increase in the support price. Nevertheless, the incentive to increase yield per acre will still be present since variable costs per acre will not have changed much and farmers will have idle machine and labor time.

A final observation needs to be made concerning the charge for land. Changes in net returns to land tend to be reflected in farm land prices since the value of this asset is determined largely by capitalizing expected returns. Thus if new agricultural programs change expectations of future net returns, land values will respond in time and in turn bring the "costs" of producing corn (including the charge for land) in line with the prices received for corn.

Research Department

FARM BUSINESS CONDITIONS

February 1961, with comparisons

ITEMS	1961		1960
	February	January	February
PRICES:			
Received by farmers (1947 - 49 = 100)	90	89	86
Paid by farmers (1947 - 49 = 100)	121	120	120
Parity price ratio (1910 - 14 =100)	81	80	78
Wholesale, all commodities (1947 - 49 = 100)	120	120	119
Paid by consumers (1947 - 49 = 100)	128	127	126
Wheat, No. 2 red winter, Chicago (dol. per bu.)	2.15	2.14	2.01
Corn, No. 2 yellow, Chicago (dol. per bu.)	1.15	1.12	1.15
Oats, No. 2 white, Chicago (dol. per bu.)	.69	.69	.80
Soybeans, No. 1 yellow, Chicago (dol. per bu.)	2.76	2.49	2.15
Hogs, barrows and gilts, Chicago (dol. per cwt.)	18.13	17.43	13.53
Beef steers, choice grade, Chicago (dol. per cwt.)	26.17	27.42	26.69
Milk, wholesale, U.S. (dol. per cwt.)	4.35	4.45	4.27
Butterfat, local markets, U.S. (dol. per lb.)	.61	.60	.59
Chickens, local markets, U.S. (dol. per lb.)	.17	.16	.17
Eggs, local markets, U.S. (dol. per doz.)	.39	.39	.29
Milk cows, U.S. (dol. per head)	224	219	223
Farm labor, U.S. (dol. per week without board)	--	46.75	46.25[a]
Factory labor, U.S. (dol. earned per week)	90.02	90.02	91.14
PRODUCTION:			
Industrial, physical volume (1947 - 49 =100)	155	155	166
Farm marketings, physical volume (1947 - 49 =100)	104	143	101
INCOME PAYMENTS:			
Total personal income, U.S. (annual rate, bil. of dol.)	406	407	396
Cash farm income, U.S. [1] (annual rate, bil. of dol.)	--	37	33
EMPLOYMENT:			
Farm (millions)	4.8	4.7	4.6
Nonagricultural (millions)	59.9	59.8	59.9
FINANCIAL (District member banks):			
Demand deposits:			
Agricultural banks (1955 monthly average = 100)	102.5	103.5	100.9
Nonagricultural banks (1955 monthly average =100)	103.8	102.4	101.6
Time deposits:			
Agricultural banks (1955 monthly average = 100)	139.0	137.9	129.6
Nonagricultural banks (1955 monthly average =100)	141.2	136.3	126.2

[1] *Based on estimated monthly income.*

[a] January

Compiled from official sources by the Research Department, Federal Reserve Bank of Chicago