Agriculture

AN EIGHTH DISTRICT PERSPECTIVE

FALL 1985

The PIK Failure: A Postmortem

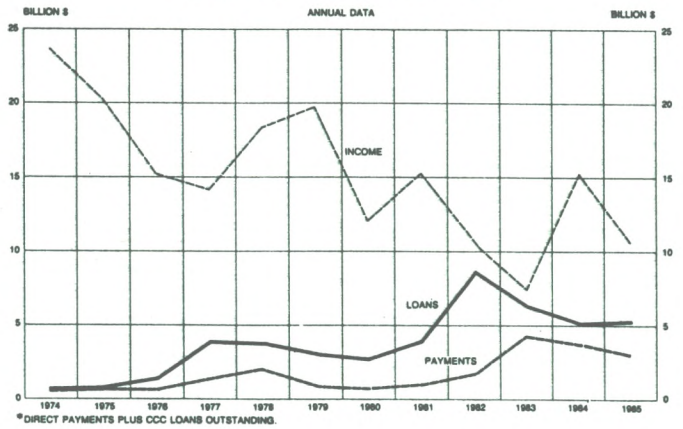
Just two years ago, the United States undertook a broad and very costly program to reduce its enormous stockpiles of all major crops. The allegation at the time was that these surplus stocks were keeping crop prices and farm incomes low. To raise farm income, then, first required substantial liquidations of surplus stocks.

With this objective in mind, the payment-in-kind (PIK) program was adopted for the 1983-84 crop year. At a direct expense to taxpayers of approximately $15 billion, PIK gave farmers an incentive to keep large portions of their acreage out of production. Also, rather than receiving all of their payment for participating in government acreage reduction programs in cash, farmers received some payments in the form of surplus grain produced in previous years and put into storage under short-term (Commodity Credit Corporation) or long-term (farmer-owned reserve) government loan. Together, the combination of sharply reduced planted acreage and the use of stored grain as payments to farmers—with the unexpected contribution of a severe drought—led to substantial reductions in crop surpluses by early 1984. Presumably, PIK should have set the stage for an upward trend in crop prices.

Yet, 1986 is expected to begin with the largest carry-over stocks in history for wheat and soybeans, while corn in storage will likely match its 1982 pre-PIK level. Moreover, prices of these and other major supported crops—cotton, rice, sorghum—have fallen to levels at or below 1982 prices. In fact, the prices of these crops in real terms are below their 1982 values. Aside from a one-year blip, associated with a one-time change in inventories, real farm income has continued to fall and the cost of government farm programs has risen (see chart 1).

As final debate on the new farm bill proceeds, it is important to ask how the effects of such a broad and expensive program to reduce surplus stocks could have such a transient effect on both crop prices and carry-over stocks. The answer is that current incentives to produce crops in the U.S. lead to excess crop supplies at the levels of price supports specified by commodity programs. Then, as now, we can continue to expect low prices, large surpluses and declining real farm income unless production incentives are reduced, stringent production controls are rigorously enforced or large new sources of commodity demand are found.

Chart 1
REAL FARM INCOME VS REAL GOVERNMENT PAYMENTS*



*DIRECT PAYMENTS PLUS CCC LOANS OUTSTANDING.

Methods of Supporting Crop Prices

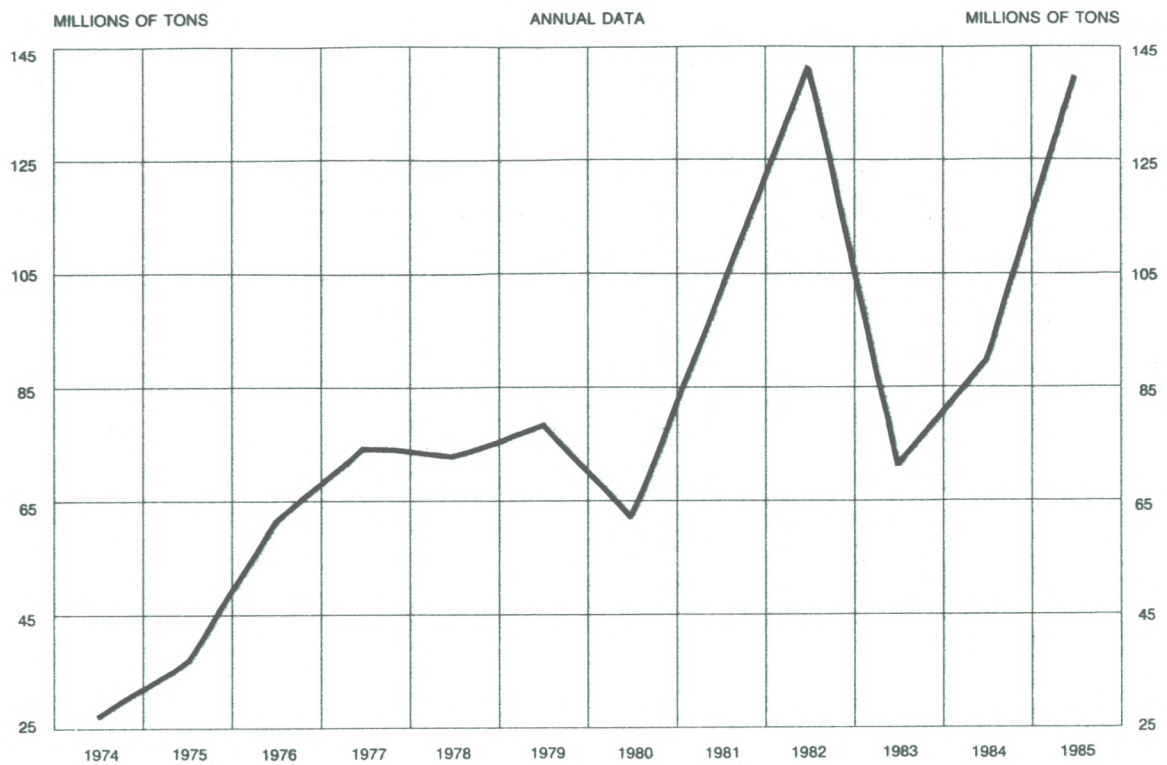
Crop prices are supported primarily by loan rates, while income is supported by target prices and deficiency payments. Under provisions of the price support loan-rate program, producers who comply with grain program requirements (for instance, reduced acreage) are eligible for a nonrecourse loan. Producers then have two options: they either can hold their grain and market it at their discretion, or they can obtain a loan. The value of a loan is determined by the loan rate multiplied by the number of bushels placed in storage. The loan rate is a legislatively determined price per bushel that serves, essentially, as a price floor.

The loan is in effect for less than one year. If market prices do not rise to levels substantially above the loan rate over the period of the loan, farmers can forfeit their grain to the CCC as full payment for the loan. Forfeiture of grain in this manner contributes to CCC grain stocks. In contrast, if market prices should rise above loan rates, farmers

THE FEDERAL RESERVE BANK of ST. LOUIS

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Chart 2
ALL GRAIN STOCKS



may elect to repay the loan, remove their grain from storage and sell it.

Producer income is supported directly by target prices and deficiency payments. If market prices are below the target price established by law, farmers receive a transfer payment from the government for the size of the price differential. An advantage to this program is that deficiency payments effectively raise farmers' incomes without generating higher prices to consumers or the purchase of large surplus stocks by the government. A disadvantage is that deficiency payments can become very expensive to taxpayers if large quantities of grain are eligible for the maximum payment.

The Failure of PIK

Ignoring the effects of surplus grain production overseas, which certainly have contributed to lower crop prices and higher grain surpluses worldwide, the important failure of PIK was the absence of a coincident effort to reduce production incentives over the longer run. Chart 2 illustrates how the production incentives of the loan rate and target price policies have caused a secular increase in the quantity of grain held in storage over the period since 1974. Stocks were at a relatively low level of $27.6 million metric tons after the Soviet grain sales in 1973-74. Surplus grain gradually accumulated until the drought of 1980 caused sharply reduced harvests and decreased carry-over stocks. Incentives to produce and to store grain increased surplus stocks about 70 percent within the next year, however, and added nearly another 40 percent to stocks in 1982. PIK and the drought cut stocks almost in half during the 1983-84 crop year but, only two years later, the carry-over is again near 1982 levels.

The PIK program's seeming inability to effect more than just temporary improvements in farm income and in grain prices suggests that more fundamental changes in farm policy are in order. Such changes need to address the existing incentive structure which encourages levels of production inconsistent with market signals and leads to high levels of surplus stock, low prices and incomes, and higher taxpayer costs.

—Michael T. Belongia and Kenneth C. Carraro

Agriculture—An Eighth District Perspective is a quarterly summary of agricultural conditions in the area served by the Federal Reserve Bank of St. Louis. Single subscriptions are available free of charge by writing: Research and Public Information Department, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, Missouri 63166. Views expressed are not necessarily official positions of the Federal Reserve System.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

EIGHTH DISTRICT AGRICULTURAL DATA

Prices and Costs[1]	June 1985	July 1985	Aug. 1985	Average for 1984	Percent Change: Year-To-Date 1985[2]	Percent Change: Same Month Year Ago
CONSUMER PRICE INDEX (% change)						
Nonfood	0.3%	0.2%	0.2%	0.3%	2.6%	3.8%
Food	−0.2	0.1	−0.1	0.3	−0.4	0.4
PRODUCTION COSTS FOR FARMERS (% change)						
All inputs	−0.7	−0.7	−0.7	−0.1	−2.0	−3.3
Fertilizer	0.0	0.0	0.0	0.2	−2.9	−8.2
Agricultural chemicals	0.0	0.0	0.0	0.2	−0.8	−0.8
Fuels and energy	0.5	0.0	−0.5	−0.1	2.5	2.0
PRICES RECEIVED BY FARMERS (% change)						
All products	−0.8	−1.6	−3.2	−0.3	−9.6	−14.7
Livestock	0.0	−3.0	0.0	0.1	−10.3	−9.1
Crops	−1.6	−0.8	−5.0	−0.7	−8.0	−19.6
FEEDER CATTLE						
Wholesale price - Kansas City ($/cwt.)	$65.40	$60.76	$61.52	$65.28	−7.2	−3.9
FEEDER PIGS						
Wholesale price - So. Missouri ($/head)	$39.74	$31.74	$32.70	$39.12	−8.1	−4.4
BROILERS						
Wholesale price - 12-city (¢/lb.)	53.40¢	52.20¢	50.10¢	55.54¢	2.6	−2.7
TURKEYS						
Wholesale price - New York, 8-16 lb. young hens (¢/lb.)	68.13¢	72.84¢	78.37¢	74.46¢	−19.5	8.2
CORN						
Wholesale price - No. 2, yellow - St. Louis ($/bu.)	$ 2.79	$ 2.72	$ 2.47	$ 3.27	−10.2	−25.8
SOYBEANS						
Wholesale price - No. 1, yellow - Central Illinois ($/bu.)	$ 5.78	$ 5.58	$ 5.28	$ 7.05	−11.6	−20.4
WHEAT						
Wholesale price - No. 1, hard winter - Kansas City ($/bu.)	$ 3.38	$ 3.17	$ 3.00	$ 3.80	−20.2	−21.1
LONG-GRAIN RICE						
Wholesale price - Arkansas ($/cwt.)	$18.00	$17.75	$17.75	$18.43	−1.8	−3.4
COTTON						
Average price received by U.S. Farmers (¢/lb.)	57.50¢	58.00¢	54.50¢	65.47¢	−2.3	−18.9

U.S. Exports	Apr. 1985	May 1985	June 1985	Average for 1984	Percent Change: Year-To-Date 1985[2]	Percent Change: Same Period Year Ago
Corn (mil. bu.)	169.0	138.0	108.0	162.1	−48.1%	−3.6%
Soybeans (mil. bu.)	65.4	33.1	18.2	59.6	−79.2	−55.7
Wheat (mil. bu.)	76.0	63.0	90.0	134.2	−32.8	−20.4
Rice (rough equivalent, mil. cwt.)	4.6	5.0	4.2	5.4	−8.1	−10.8
Cotton (thou. bales)	577.8	453.0	375.3	580.4	−43.1	−16.4

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Non Real Estate Farm Debt Outstanding

	Banks			PCAs[3]		
	Outstanding ($ millions)	Percent Change 6/84 - 6/85	Percent Change 6/83 - 6/85	Outstanding ($ millions)	Percent Change 6/84 - 6/85	Percent Change 6/83 - 6/85
U.S.	$40,108	-2.8%	4.1%	$16,316	-16.5	-21.5
Eighth District[4]	2,949	-2.6	7.1	NA	NA	NA
Arkansas	523	-4.3	8.4	336	-19.8%	-21.0%
Kentucky	741	7.0	17.9	305	-31.5	-44.4
Missouri	1,429	-8.1	-6.2	357	-22.7	-25.9
Tennessee	369	-6.3	-3.4	312	-29.0	-39.7

Agricultural Bank Loan Performance[5]

	Percent of Overdue Farm Loans at Agricultural Banks			Percent of Net Loan Charge-Offs at Agricultural Banks		
	6/85	6/84	6/83	6/85	6/84	6/83
U.S.	3.6%	3.1%	2.2%	.79%	.41%	.29%
Eighth District[4]	4.3	3.5	2.4	.60	.32	.23
Arkansas	3.8	2.2	2.3	.41	.24	.17
Kentucky	3.6	4.4	2.0	.39	.34	.32
Missouri	4.6	4.0	2.3	1.18	.51	.33
Tennessee	3.5	2.9	2.6	.55	.58	.51

Agricultural Production Loan Interest Rate[6]

	Banks		PCAs	
	8/85	8/84	7/85	7/84
Eighth District Average	11.8%	13.6%	12.0%	12.6%

[1] The consumer price index components are seasonally adjusted. All other data are not seasonally adjusted.
[2] Percent change from December of previous year, based on the most recent month available.
[3] Source: Farm Credit Banks of Louisville and St. Louis, Farm Credit Administration.
[4] Includes all of AR and parts of IL, IN, KY, MO, MS and TN.
[5] Agricultural banks are defined as those with more than 25 percent of total loans in agricultural loans.
[6] Interest rate data are for different dates. PCA rates are weighted averages for Arkansas and Missouri, not adjusted for stock purchase requirements. Source: Farm Credit Banks of St. Louis.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis