

## ABSTRACT

During the 1970s, improved agricultural markets led to greater net income for farmers. This, coupled with inflation and the trend toward larger farms, led many farmers to expand through leveraging their equity. The boom period has ended and many farmers face foreclosure. Concentrated in the central states among those less than 45 years old, their demise affects both rural communities and American consumers.

One of the important trends in agriculture during this century has been a decline in the number of family farms. For example, Missouri had approximately 112,000 farms in 1982, half as many as in the 1920s. Most of this reduction in the number of farm families has resulted from natural attrition as farm youth selected non-farming occupations. The attrition was natural only in that opportunities to enter farming were diminishing as agricultural research rapidly developed new technology. The new technology reduced the need for farm labor, increased the need for financial capital and resulted in larger and larger farms to fully realize the benefits of the technological advances. In this process, there were admittedly times where many families were forced from farming in mid-career through involuntary foreclosure or bankruptcy but, since the 1930s, the decline in the number of farms was primarily voluntary.

The trend toward fewer farms is not new. The conditions, however, leading to the current acceleration of involuntary farm foreclosures are unique since they affect a lone sector of the economy while most sectors of the economy show signs of growth. The current crisis in contemporary agriculture and the future prospects for the American food production system deserve discussion. The months ahead warrant public scrutiny of the governmental choices affecting a sector so important to American consumers. The task of this paper is to describe how the current problem arose and to document its magnitude.

## THE PROMISING 1970s

In the summer of 1972 bad weather in the Soviet Union resulted in Russian food shortages. Our government, in an election year, responded to their crop failure by selling the Soviets excessive amounts of grain from our national reserves. Not only did this sale bolster both farm incomes and incumbent re-election aspirations but it, also, bolstered food prices as there simply was insufficient grain to meet domestic demand at prevailing prices (14:56).

The Department of Agriculture had spent most of its history managing food surpluses and, therefore, left acreage controls in place for 1973 which, coupled with the corn blight of 1973, further restricted supplies and fueled renewed price escalation. By 1974, agricultural prices had risen 69 percent from their 1971 levels (2:342).

Price increases were not the only change during this period. The value of the dollar declined from 1971-1973 which, coupled with a substantial increase in U.S. food aid, resulted in a 180% increase in grain and soybean exports between 1970 and 1974 (18:58). In January of 1975, commenting on the need for increased food production and slower world population growth, Earl Butz, then Secretary of Agriculture, replied, "To falter in either, or to fail at either, is to court disaster" (1:34). Farmers must have agreed wholeheartedly for Production Credit Association loans had increased 16.4% and Federal Land Bank loans had increased 27.8% over 1974 (4:6). Farmers were answering the call to feed the world and improve the U.S. balance of payments deficit brought on by the petroleum export restrictions of OPEC.

Farm families were elated by the trend in agricultural prices for, just as their baby-boom children were completing school and returning to the farm, the prospects for profitable farm expansion looked feasible. Certainly the farm magazines did little to dispell this notion by publishing items such as the following:

. . . two main trends: 1) Continued enlargement of farm enterprises on a surprising scale and 2) A firm family farm orientation even as some farmers become huge and others become part-time, residential operators. (9:16)

Agriculture will remain a growth industry. We expect more countries will develop the financial means to offset crop failures with imports. That and a growing, one-world conscience which demands the prevention of starvation when it is preventable. (17:44)

By 1980 the optimism was still prevalent. Land prices were continuing their rapid escalation of recent years and led the U.S. Department of Agriculture to forecast continued price increases of 14% annually for coming years (3:13). Why shouldn't land prices continue to escalate? Net farm incomes in 1979 were 10% higher than in 1978 and 50% higher than in 1977. Besides, a survey of 600 rural bankers found the value of farm land to have increased 5.7%, on average, over the period of July to September 1979. On an annual basis, this result was similar to results released by the Federal Reserve Bank of Kansas City which reported an increase in land prices of 20%, on average,

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during 1979 (3:18). In February of 1980 the cover article of Farm Journal, "Can You Make \$3,000 Land Pay?", quoted an Iowa farmer:

The way I look at it, I'm letting the boys use some of the equity I already have in the land. It'll be a while before I'm ready to quit farming and by that time, there's no telling what prices will be. If we don't buy now, we may not be able to at all (13:11).

What appeared like wisdom, the use of financial leverage to expand the farming operation, left many with the burdensome debt loads of today. The bubble burst so quickly that, four months after publishing the above, Farm Journal quoted another Iowan, James J. McGuire, land auctioneer from Holstein, Iowa:

. . . farms worth \$3,000 an acre three to six months ago may have dropped to \$2,000 since March 1 -- and may be worth even less. We don't know because we haven't been able to get acceptable bids (16:45).

Clearly, the roots of today's crisis were planted in the 1970s. The agriculture community, however, did not foresee what was to come. Even after the crisis had started, they remained reluctant to recognize it and even more reluctant to do anything to alleviate it. Robert Bergland, Secretary of Agriculture under President Carter, recognized the problem in testimony before the House Agriculture Committee:

The big farmers are in trouble -- especially those who bought land at high prices . . . many aren't going to make it, and I don't intend to do a thing about it (16:45).

The staff economist of Farm Journal, John Marten, was still optimistic, however, even eight months later in December of 1980:

. . . for 1985, I expect total grain exports of at least 150 million metric tons and a total U.S. dollar volume of at least \$75 billion . . . Looks like Uncle Sam may be playing the role of "controlling" your profits rather than "helping" your prices by 1985 . . . With livestock producers back in the profit column and exports booming, the next five years look very bright indeed (11:13-14).

Very bright indeed if you had not borrowed heavily to finance the expansion of your land and/or capital equipment holdings. Very bright indeed if the debt was not necessitated by your children joining the family enterprise or initiating a new farm business. Very bright indeed if your occupation was that of a rural bankruptcy lawyer. For 1985, current estimates of expected agricultural exports stand at \$36.5 billion (10:28) and Uncle Sam is not controlling profits while he is considering ceasing agricultural price supports.

#### THE CURRENT FINANCIAL SITUATION

Not surprisingly, the farmers most vulnerable to the financial crisis are those with the largest

debts. Data published recently reports that farm debt has risen from less than \$50 billion in 1970 to around \$200 billion in 1984. Meanwhile, farm assets have also grown, albeit at a lower rate, from slightly less than \$300 billion in 1970 to slightly more than \$900 billion in 1984 (10:27). The question remains, who is being hurt by today's agricultural markets? An analysis of recent data from the Missouri Mail-In Records program, a computer aided financial management subscription, grouped members in thirds on the basis of debt-to-asset ratio. The top one-third had a debt-to-asset ratio of less than 15 percent. The middle group had debt-to-asset ratios of between 15 and 35 percent, and the bottom third had debt-to-asset ratios greater than 35 percent. The group with the lowest debt-to-asset ratio had an average net income of about \$17,000. The middle category had mixed success, and the third category reported major losses. A simple inability-to-pay 12 to 14 percent interest on debt, at a time when receipts produced a meager 2.8 percent average return on investment has plummeted the third group into depression. Ironically, the farmers in the third category were the most productive by traditional measures of efficiency such as bushels of grain per acre or pounds of milk per cow. Equity in the farm enterprise and lack of income source diversification, rather than inferior production ability, seem to be the primary determinants of farm insolvency. If it could be shown that purchased crop inputs were similar between groups, this data would be a contradiction to the official opinion that the farm crisis is the free market weeding out poor managers.

If similar net income generation capabilities can be inferred from debt-to-value ratios for farmers across the United States, then a picture of a financial stressed farmer may be gleaned from a recent survey conducted by Farm Journal (assisted by Iowa State University and the University of Missouri-Columbia). In Table 1 are some of the results from the survey reported in the March 1985 issue of Farm Journal. It should be noted that the U.S. weighted sample column is an adjustment to reflect for the actual number of farms in each region.

As can be seen in Table 1, the majority of farmers are not in serious difficulty. The weighted sample results show that two-thirds of American farms have debt-to-value ratios of less than 40%. However, the other one-third is in serious difficulty with 15.4% of American farmers having less than 30% equity in their operations. Those in the serious to extreme leverage categories, those with debt-to-value ratios exceeding 40%, are heavily concentrated in the Central region. In the Central region fully 42% of the farmers surveyed find themselves in these categories. Whether this difference is a result of more aggressive farm expansion, greater severity of recent weather conditions or other market differences is not known.

Equity in the farming operation is highly correlated to the farm family life cycle. During the age period of the mid-20s to early 30s, a young family must decide whether farming will be its career choice. The decision to farm begins the

TABLE 1: Percent of Farmers by Debt-to-Value Ratios and Region

	Central n=314	South 274	East 288	West 347	U.S. 1,223	U.S. weighted
Debt/Value:						
10% or less	31.5	44.9	53.1	36.9	41.1	37.9
11% to 40%	26.0	30.3	26.7	36.6	30.2	28.8
41% to 70%	21.5	13.9	13.9	16.7	16.6	17.9
over 70%	21.0	10.9	6.3	9.8	12.1	15.4

development of a farming operation, and if farm assets are not held they must be secured. This usually involves borrowing relatively large sums of money to purchase livestock, equipment and, perhaps, land. At a time when family living expenses are greatest, because of the cost connected with establishing and rearing a family, so are the needs for agricultural capital. When the family reaches the mid-40s, family living expenses are fewer and the repayment of many equipment and land debts are more feasible. The distribution of farm debt by age categories was also reported by Farm Journal and is presented in Table 2 where it is readily apparent that younger farmers are the most vulnerable to today's credit crisis.

In the Fall of 1983, 2,000 responses from a randomly drawn sample of Missouri farmers were received. Fifty percent of the respondents reported no farm debt. However, only 29 percent of the medium size farms and 17 percent of the large farms reported no debts. Furthermore, 37 percent of the operators of large farms and 31 percent of the operators of medium sized farms indicated that they were very much concerned with the debt on their farming operation. More than three-fourths of the young farmers (less than 45 years) with

TABLE 2: Percent of Farm Respondents by Age Category and Average Debt-to-Value Ratios by Age Category

	Age of Operator				
	35	35-44	45-54	55-64	65
% of Respondents:					
Central	20	21	21	28	10
South	14	23	24	22	17
West	11	22	29	26	12
East	15	22	24	26	13
Average Debt/Value Ratio:					
Central	63	61	46	24	10
South	42	45	35	24	6
West	44	43	26	20	15
East	54	27	18	12	9

As can be seen, families that began to farm in the mid-1960s or earlier (45 years and older) purchased land and equipment at relatively low prices and were able to repay most debts with the high commodity prices of the 1970s. However, couples that began to farm ten years later (under 35 years of age) were buying initial equipment and land at rapidly inflating prices, only to see the price of farm commodities and farm land drop in the 1980s. Vulnerability to the farm crisis is as much an accident of birth as a product of poor management decisions.

large farm operations indicated that they were "very much concerned" with the level of their farm debt. In general, the younger farm families and those without non-farm income expressed the most concern.

Off-farm income helps many farm families finance debt and farm-family living expenses. The Farm Journal survey found that families in the Central region were less likely to have off-farm income. In the South, off-farm income is more than one-half of total farm family income; in the East, 47% and 44% in the West. However, in the Central region, non-farm income represents only 24%

of total farm family income (12:15). It is expected that the lower figure results from less opportunity for non-farm income. Medium and large sized farms require more labor input and, if hired help is not feasible, the farm owners must perform these tasks. Also, it is expected that many rural communities in the Central region have fewer non-farm and non-farm related occupations in the economic base of the community.

The perceptions of farmers are quite consistent with the apparent views of the financial community. A recent survey of twenty farm lenders in the Northern half of Missouri indicated that they expect as many as a third of all Northern Missouri farm operations to face involuntary liquidation over the next three years.

The financial community itself is in some difficulty. The St. Louis Post-Dispatch reported on a large number of Missouri rural banks with disappearing equity. Ten banks were identified within the state that would be bankrupt within the year if they continue to exhaust their capital at the rate they did in the second quarter of 1984.(15:1) This problem is not unique to Missouri. It was reported in the Columbia Tribune that between January and August of 1984 the number of "problem banks" in the United States increased by 100.(5:2) Eighty of these were in 10 of the states usually referred to as America's agricultural heartland: Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, Wyoming and Montana.

The effect of the current crisis is not restricted to farmers and their lenders. Agricultural and consumer goods suppliers are also affected. The Federal Reserve Bank of Kansas City recently reported a survey of Tenth District bankers indicating that 13 percent of rural non-farm businesses are having severe financial troubles.

Many rural families are suffering from the crisis in ways that go far beyond farm finances. The suicide, divorce and child abuse rates among rural Americans have increased markedly during the last two years. An informal sampling of Missouri social agency employees, in the Northern half of the state, revealed that between January and February of 1985 their case loads approximately doubled. Undoubtedly, the anxiety associated with family farm failure can account for much of this growth.

The impact of financial stress in agriculture varies across the country. It varies from region to region, from state to state and from farm to farm; depending as much on local weather conditions, local farm land markets and local lending practices as on macro-economic factors. It is misleading in one sense to call the current situation a farm crisis or even a farm family crisis. It is a crisis of the total rural community, a crisis resulting from factors largely beyond the control of the rural population. Undoubtedly, some rural Americans will be unable to continue their current operations and will have to make a transition to other occupations. Others will continue in their chosen line of work but

will be adjusting to changing circumstances. It is a fact that rural families will adjust to the changing environment of rural America -- they have been for years. How that environment adjusts, at this time in history, is in our hands, the hands of the American citizenry. Choices need to be made as to the type of food delivery system we would like to have serve us and our descendants. Do we want a system that is controlled by the few to the detriment of many? Already 45% of all the beef slaughtered in this country are slaughtered by two companies, Iowa Beef Producers and Excel (8:19). Excel is owned by Cargill, one of five grain companies controlling 90% of all overseas grain trade. The four largest broiler processors increased their share of the broiler industry by 16% from 1978 to 1981 and are still growing.(7:40) Farmers do not sell their production to competitive markets, nor do they buy most of their capital equipment from competitive markets. It is, therefore, unrealistic to expect them to profit when they buy from oligopolies and sell to oligopsonies.

The locus of control is shifting from the farm to the board rooms of American agri-business. The market structure currently being threatened brings the American consumer the lowest food prices in the world. In 1985 the percentage of take-home pay spent on food is expected to decline further by decreasing from 15 to 14.6 percent (6:2). Whether food remains inexpensive for Americans is anybody's guess; however, my guess is that it will continue to be inexpensive at least as long as the current structure of farming exists. When our food emanates from larger and larger farms, when those farms are worked by wage workers (farmers) employed by land controllers (corporations), when we begin to see the devastating impact this system has on the land and on the American lead in world agricultural productivity, and when those in control have the power to affect food prices in the new "free market", how much will we pay for our daily bread?

#### REFERENCES

1. Block, Roe C., "Answer to Starvation", Farm Journal, Volume 99 (February 1975), pps. 33-45.
2. Council of Economic Advisors, The Economic Report of the President, 1982.
3. "Despite the Fed - Farmland Values Keep on Rising", Farm Journal, Volume 104 (January 1980), pps. 13, 18.
4. "Farmcast", Farm Journal, Volume 99 (September 1975), pps. 33-45.
5. "Fed: Problem Banks on Increase", Columbia Tribune, February 1985, p. 2.
6. "Food's Bite of Income May Fall to Record Low", Columbia Tribune, March 1985, p. 2.

7. Heffernan, William P., "Constraints in the U.S. Poultry Industry", unpublished manuscript Department of Rural Sociology, University of Missouri-Columbia, 1984.
8. \_\_\_\_\_, "Review and Evaluation of Social Externalities", paper presented at EVIST project, Washington, DC, April 12-13, 1984.
9. Logsdon, Gene, "Leave Us Alone and We'll Produce the Food", Farm Journal, Volume 100 (July 1976), pps. 16-20.
10. Magnusen, Ed, "Clinging to the Land", Time, Volume 125 (February 18, 1985), pps. 24-39.
11. Marten, John, "Farm Profits in 1985", Farm Journal, Volume 104 (December 1980) pps. 13-14.
12. Schotsch, Linda, "Who Will Farm in Ten Years?" Farm Journal, Volume 109 (March 1985), pps. 13-14.
13. \_\_\_\_\_ and Dick Seim, "Can You Make \$3,000 Land Pay?", Farm Journal, Volume 104 (February 1980), pps. 11-13.
14. Thurow, Lester, Dangerous Currents, Random House, New York, 1983.
15. "Troubled Banks", St. Louis Post Dispatch, November 4, 1984.
16. Wennblom, Ralph, "Bergland Sees No Farm Crisis Yet", Farm Journal, Volume 104 (June/July 1980), pps. 44-45.
17. "What We See For Century 3", Farm Journal, Volume 100 (December 1976), p. 44.
18. "Who Will Sell Our Grain Overseas?", Farm Journal, Volume 99 (September 1975), pps. 5, 8.