CR-199
12-87

OSU

Current Report

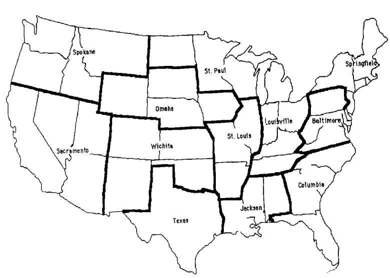
Cooperative Extension Service • Division of Agriculture • Oklahoma State University

FARM FINANCIAL CONDITIONS WITHIN FARM CREDIT SYSTEM DISTRICTS

Damona G. Doye
Extension Economist

Although farm financial conditions appear to be stabilizing in some regions of the U.S., many farmers and lenders continue to struggle to manage their agricultural loan commitments. A recent examination of farm data documents disparities in financial conditions among regions of the U.S. and shows differences in incidence of stress by farm size and type. This Current Report highlights results of a study which focused on the financial performance and status of farmers within the twelve FCS districts (Figure 1). Highlights include: distribution of farms, agricultural assets and debts in the U.S.; number of severely stressed operations by region, type and size of farm; and average cash flow statements for farms categorized by their financial performance class.

Figure 1. Farm Credit System Districts, United States



Findings that make sweeping proposals for improving farm financial conditions both complex and difficult:

1. More than half the farms in each FCS district are financially stable/strong.

2. No more than 15% of the farms in any district are severely stressed and likely to fail (less than 6% in some districts).

3. The percentage of financially weak farms (those at risk and those severely stressed) is about the same -- less than 30%, regardless of whether they are large or mid-size operations.

4. The likelihood of severe stress depends upon the type of operation: more than 14% of the dairy farms and about 12% of the cash grain farms are severely stressed, while less than 8% of the livestock or horticulture operations are severely stressed.

5. Debt/interest rate relief would provide only partial relief to financially weak farms with negative to low returns before interest is deducted.

6. The percentage of severely stressed farms in either the large or mid-size category is more than double the level among small farms.

Note: Information in this article is based on research conducted by Robert Jolly, Professor, Department of Economics, Iowa State University; Damona Doye, Extension Economist; and Darrel Choat, former graduate student, Oklahoma State University, earlier this year, and reflects 1985 income and 1986 balance sheet data. Copies of the full report may be obtained by contacting the author at Oklahoma State University.

Farm Operators, Assets, and Debts

An awareness of geographic concentrations of farms and agricultural assets and debts helps in understanding U.S. farm financial conditions. Figures 2-4 show the distribution of farm operators, assets and debts by FCS district.

Number of Farms: Farms are concentrated in the Midwest, hence U.S. statistics based on farm numbers are heavily influenced by conditions in those regions.

Farm Assets: The distribution of farm assets is skewed more to the West where farms are significantly larger in terms of both acreages and value of assets owned.

Farm Debt: Farm debt is concentrated in the Midwest (St. Louis, St. Paul, Omaha, and Wichita districts) as a result of high average farm debt levels and the concentration of farms in the Midwest.

Figure 2. Farm Operators by FCS District

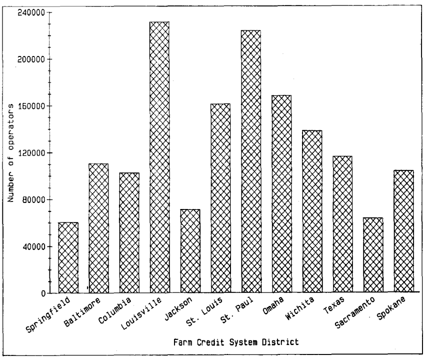


Figure 3. Farm Assets by FCS District

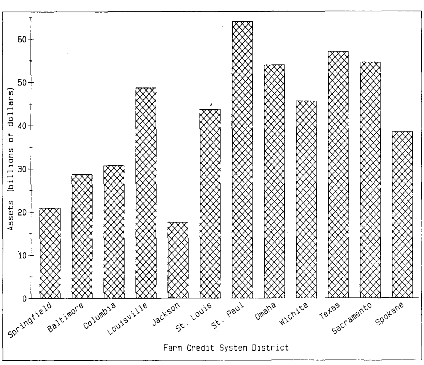
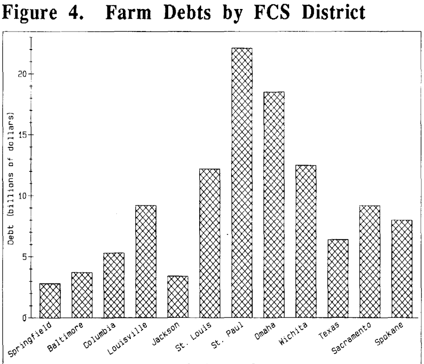


Figure 4. Farm Debts by FCS District



Farm Financial Performance Categories

To evaluate the financial health of farms within a geographic region, farm financial data is used to assign a farm business to a performance category. Here, short term survivability is emphasized in evaluating a farm's financial performance. Liquidity and solvency indicators are used jointly in assessing a farm's financial position. Liquidity shows the farm's capacity to meet its financial commitments as they come due. Solvency relates to the farm's ability to meet debt obligations in the long run. A farm is insolvent if the sale of all assets generates insufficient cash to pay off all liabilities.

Here, the net cash flow to equity ratio is used to measure liquidity and profitability and the debt to asset ratio is used to measure solvency. Four financial performance categories are defined using these two financial ratios:

1. **Financially strong.** Net cash flow exceeds capital replacement costs and principal payment requirements. Expansion is feasible, given the farm's equity.
2. **Stable.** The farm business has adequate equity. Net cash flow may not be sufficient to fully replace capital or pay principal and interest.
3. **Restructurable.** Farm operations are experiencing cash flow shortages or have limited equity and risk bearing ability. Timely reorganization through operational changes or debt and asset restructuring is needed. Farms in this category are at risk.
4. **Severely stressed.** Farms are either technically insolvent or have large losses relative to their limited equity base. Survival of these operations beyond a year or two is unlikely.

These four categories are used to describe a farm's financial position at a point in time. Obviously, the economic climate is subject to change, resulting in significant improvements or declines in a farm's financial picture over time. A farm will remain in a given financial performance category if income levels remain constant and no further change in equity occurs. Declines in asset values, increases in debt due to losses, or changes in income (farm or off-farm) will cause a change in financial status.

At the national level, approximately 40 percent of farms appear to be performing well (are financially strong) while nearly 10 percent are severely stressed (Figure 5). The remaining 50 percent of farms are split nearly equally into stable and restructurable categories. Assets tend to be distributed similarly except that stable farms tend to have a relatively large share of the assets. A disproportionate share of farm debt is held by severely stressed and restructurable farms. While severely stressed farms account for only 10 percent of the farms in the U.S., they hold roughly 30 percent of the farm debt.

Distributions of operators, assets and debts by financial performance category for the Wichita district are very similar to the national statistics. In the Wichita district, a slightly higher percentage of operators (13 percent) and debt (35 percent) are on severely stressed farms.

Financial conditions vary considerably across the U.S. Figures 6 and 7 indicate the percentages of all farms within a FCS district which are financially strong and severely stressed. Relatively little variation exists among the districts in percentages of financially strong farms. More than 13 percent of farms in the Wichita, Omaha, and St. Paul districts are classified as severely stressed. Less than 6 percent of the farms in the Texas, Springfield, and Baltimore districts are severely stressed.

In Figure 8, the number rather than the percentage of severely stressed operators by FCS district is displayed. The corn belt and plains regions are home to most of the severely stressed operators because of the concentration of farms and relatively high incidence of financial stress in those regions.

Figure 9 shows that as farm size measured by gross farm sales increases, more farms tend to be at financial extremes--either financially strong or severely stressed. The majority of small farms are in the stable or restructurable category with relatively few severely stressed farms. The percent of severely stressed and restructurable farms is similar for mid-size and large farms.

Figure 5. Distribution of Operators, Assets and Debts by Financial Performance Category

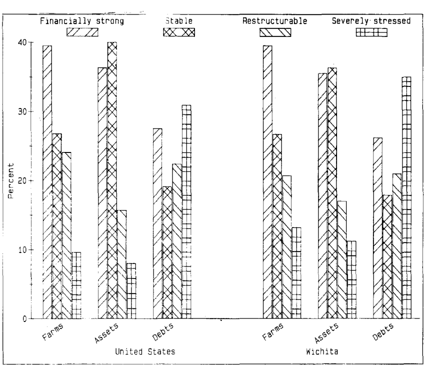
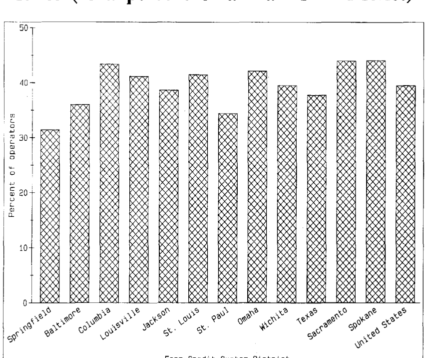


Figure 6. Financially Strong Farms by FCS District (as a percent of all farms in district)



Financial stress is more likely in some types of farms than in others. Dairy farms have the highest incidence of severe financial stress (nearly 15 percent of farms) followed by cash grain farms with 12 percent (Figure 10).

Figure 7. Severely Stressed Farms by FCS District (as a percent of all farms in district)

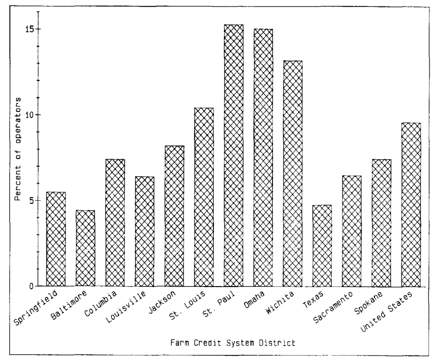


Figure 8. Severely Stressed Farm Operators by FCS District

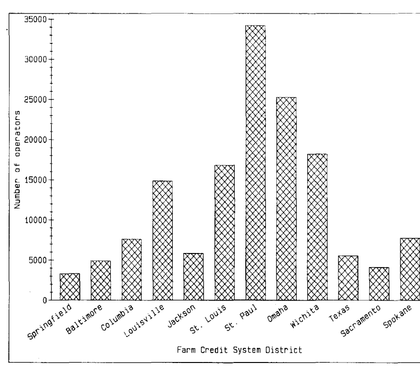
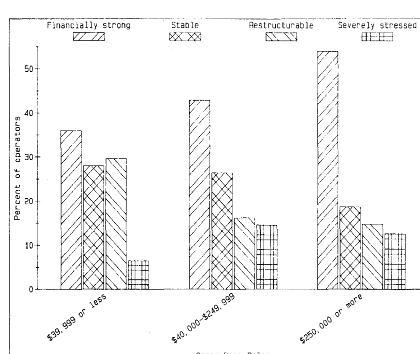


Figure 9. Farm Operators by Financial Performance Category and Sales Class (percents for U.S.)



Cash Income and Cash Flow

Average cash flow statements by financial performance category are listed in Table 1 for the Wichita district and for the U.S. Farm income on average is highest for the farms at the extremes in financial performance, the financially strong and severely stressed. However, operating expenses before interest for the severely stressed group are quite high relative to other groups and only part of that difference can be attributed to differences in farm size.

Basic differences exist in the use of debt and the financial performance of stressed farms in comparison with other farms. On average, 41 percent of U.S. farms and 45 percent of Wichita district farms have negative cash income before interest is deducted. In the Wichita district, nearly 60 percent of farms in the severely stressed category have negative cash income before interest expenses. These negative net cash incomes lead to low and even negative average cash rates of return on assets before interest. Financially strong farms earn a 12-14 percent cash rate of return before interest while stressed farms earn a 0-3 percent return.

Interest expenses, like average debt levels, are three times higher on stressed farms than on other farms. Over 75 percent of the severely stressed farms have negative cash income after interest expenses. On average, farms in both the restructurable and severely stressed categories have negative net cash flows.

The net cash flow to equity ratio (NCF/E) indicates the rate at which a farm is increasing or eroding its equity base. Large, positive values for NCF/E mean that the farm has surplus income which may be spent on the farm or farm family. A positive NCF/E signals financial health and the potential for farm growth. NCF/E ratios indicate financially strong farms are improving their financial position while financially stable farms are just maintaining their current equity base (NCF/E=0.01).

Negative NCF/E means that farm losses are eroding the farm's current equity. Restructurable farms' equity declined 5 to 7 percent in 1986. Stressed farms equity declined an average of 50 percent (U.S.) to 70 percent (Wichita district) of beginning equity, suggesting the farm cannot survive more than one or two years.

Figure 10. Severely Stressed Farm Operators by Type of Farm (percents for U.S.)

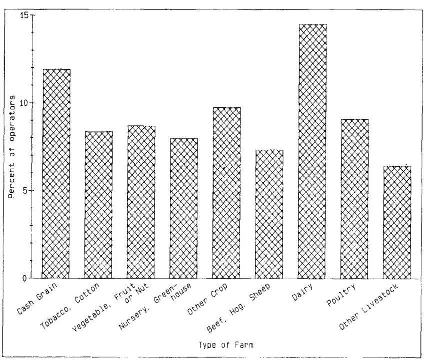


Table 1. Average 1985 Cash Flow & Income Statement for Farms by Financial Condition: U.S. & Wichita District

		Strong	Stable	Restructurable	Severely Stressed	All Farms
		(------$1,000/farm[1]------)				
Gross Cash Farm Income	U.S.	106	58	54	113	81
	Wichita	103	56	80	123	88
Operating Expenses	U.S.	63	47	50	104	60
	Wichita	68	46	75	124	71
Interest Expense	U.S.	6	6	8	23	8
	Wichita	6	8	11	25	10
Cash Income less Interest	U.S.	36	5	-4	-14	13
	Wichita	29	2	-5	-26	8
Off-farm Income	U.S.	40	14	9	12	23
	Wichita	49	16	12	14	28
Net Cash Flow[2]	U.S.	61	3	-10	-17	21
	Wichita	63	3	-9	-27	20
Net Cash Flow/Equity	U.S.	0.25	0.01	-0.07	-0.50	0.08
	Wichita	0.27	0.01	-0.05	-0.70	0.08

[1] Note that figures may not sum due to rounding.
[2] Net of expenses noted above and family living expenses estimated at $15,400

SUMMARY AND CONCLUSIONS

A study of financial conditions in agriculture yields a picture of extremes. More than half the farms in each FCS district are financially strong or stable and are at least maintaining their current favorable financial position. On the other hand, a significant number of farms -- nearly 15 percent in some FCS districts -- are failing and have little chance of recovery. The percentage of financially weak farms is similar for mid-size to large farms, lower for small farms. The likelihood of severe stress is highest for dairy farms and cash grain farms and least for livestock operations. FCS districts in the midwestern and plains states have many more stressed operators (both in numbers and percentages) than FCS districts on the east or west coasts.

Stressed farms, on average, have excessive debt, high operating expenses and low off-farm incomes. Analysis of cash expenses indicates many farms with negative to low returns before interest is deducted. Hence, debt/interest rate relief can provide only partial relief to financially weak farms. Higher incomes, whether due to high cattle or hog prices or large government payments, may likewise partially or temporarily alleviate financial stress. But, operating changes to lower production expenses relative to income must be made to make these operations viable in the longer run.

Although financial conditions in agriculture may be stabilizing in some areas, any perceived stability is tentative at best. Already a large number of farms--those severely stressed and restructurable--are undergoing some transition. Asset and debt restructuring or the addition of an off-farm job might preclude the farm's exit from the industry. A decline in farm incomes because of changes in government programs, increased production costs, or decreases in off-farm earnings though could compound existing financial and human stress on farms.

Cooperative Extension Service

Oklahoma Cooperative Extension Service does not discriminate because of race, color, sex, or national origin in its programs and activities, and is an equal opportunity employer. Issued in furtherance and Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Charles B. Browning, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agriculture and has been prepared and distributed at a cost of $287.41 for 3,150 copies. AI-7277, 1287, RO.