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# Agriculture

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## AN EIGHTH DISTRICT PERSPECTIVE

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### Rural and Agricultural Banks: A Performance Update

The episode termed as the farm sector recession is now in its sixth year. Sharp declines in real farm income have dragged down the values of farm assets pledged as collateral for farm loans. Normally, collateral serves as a cushion for the lender should a borrower default on a loan. The declines in farm asset values have been so severe in many parts of the country, however, that the process of foreclosure and sale of acquired property still has produced losses for farm lenders.

In this issue, we update the condition of rural and agricultural banks in the Eighth Federal Reserve District relative to their counterparts nationally. Some analysts claim that rural banks, regardless of their direct lending to farmers, have been affected adversely by the general recession in rural areas. The argument is that, as farm incomes fell, farmers bought fewer goods and services in their local communities, which caused subsequent declines in the incomes of rural merchants and less spending on their part. Agricultural banks, of course, are said to be experiencing higher loan losses and lower earnings as a direct result of the deteriorating quality of farm loans.

#### Problem Banks

A primary criterion by which to analyze bank performance is the likelihood of survival. With this in mind, problem banks can be defined as those for which the value of past-due and nonperforming loans exceeds the sum of total bank capital and loan loss reserves. The latter two items represent the resources of a bank to absorb loan losses. Using this comparison, if all loans currently delinquent were written off, loan losses would exceed bank equity and the banking firm would be insolvent. This definition of "problem banks" should not be confused with the technically more complex ratings used by the three bank regulators. Moreover, it should be noted that this is a very severe criterion since it assumes the bank would recover nothing from a foreclosure action and sale of acquired assets.

Table 1 (on page 2), which shows data for the most recent three years, indicates contrasts across years and type of institution. Nationally, the number of problem banks is up 4.5 percent over 1985 and 32.8 percent over 1984, while the percentage of the total represented by rural banks is down slightly, from 58 percent in 1984 to 50 percent as of December 31, 1986.

At the District level, however, conditions have improved. The number of problem banks is 21, down from 42 in 1984 and the lowest figure since 1982. The share represented by rural banks remains near 90 percent, however, as it has historically. Not only have the District numbers shown improvement in recent years, problem banks in the Eighth District still represent only 1.6 percent of all District banks, whereas 6.1 percent of all banks nationally are problem banks.

#### Agricultural Banks

Examining the problem banks in table 1 in terms of their exposure to agricultural loans produces more diversity between national and Eighth District performance. If an agricultural bank is defined as one which has 25 percent or more of its total loans as loans to farmers, the lower portion of table 1 indicates that absolute numbers of problem farm banks nationally and their share of all problem banks (26 percent) are down somewhat from the 1985 values. While the number of problem farm banks in the Eighth District also fell, from 15 to eight, their share of the total changed little.

Changing the definition of an agricultural bank to one that has 17 percent or more of its loans in farm loans does not change the percentage shares of the table in an appreciable manner. The implication of the table is that the number of problem banks is increasing nationally but that agricultural banks reflect a smaller share of that general trend. In the District, however, it appears as if conditions at both agricultural and nonagricultural banks have improved somewhat.





**Table 1**  
**Problem Banks: The United States vs. Eighth District**

	December 31, 1986		December 31, 1985		December 31, 1984	
	Number	Percent	Number	Percent	Number	Percent
<b>RURAL VS. URBAN BANKS</b>						
U.S. Problem Banks						
Rural <sup>1</sup>	425	50%	465	57%	376	58%
Urban	429	50	352	43	267	42
TOTAL	854	100	817	100	643	100
District Problem Banks						
Rural <sup>1</sup>	19	90	31	84	37	88
Urban	2	10	6	16	5	12
TOTAL	21	100	37	100	42	100
<b>AGRICULTURAL VS. NONAGRICULTURAL BANKS</b>						
U.S. Problem Banks (Agricultural Loan Ratio)						
Greater Than 25%	224	26	268	33	205	32
Less Than 25%	630	74	549	67	438	68
TOTAL	854	100	817	100	643	100
District Problem Banks (Agricultural Loan Ratio)						
Greater Than 25%	8	38	15	41	11	26
Less Than 25%	13	62	22	59	31	74
TOTAL	21	100	37	100	42	100

<sup>1</sup>Rural banks are defined as all banks not in a Metropolitan Statistical Area. Urban banks are defined as those in an MSA.

## Bank Earnings

Another item that indicates bank performance is earnings, which typically is measured as the return on equity (ROE) or return on assets (ROA). Data for small banks (less than \$50 million in assets), presented in table 2, tend to reaffirm what has been shown above. Small Eighth District banks appear to be in better financial condition than small banks generally and have shown less variation in earnings in recent years. Especially notable is the steady downward trend in earnings nationally, both at agricultural and nonagricultural banks. In contrast, earnings at comparable District banks have been nearly constant, with the exception of a dip at nonagricultural banks in 1986.

—Michael T. Belongia and Kenneth C. Carraro

**Table 2**  
**Returns on Equity and Assets at Small Banks**  
**(less than \$50 million in assets)**

	1986	1985	1984
<b>UNITED STATES</b>			
Nonagricultural Banks <sup>1</sup>			
ROE	1.3%	4.1%	5.8%
ROA	0.1	0.4	0.5
Agricultural Banks			
ROE	5.1	5.7	8.0
ROA	0.4	0.5	0.7
<b>EIGHTH DISTRICT</b>			
Nonagricultural Banks <sup>1</sup>			
ROE	5.5	8.0	8.6
ROA	0.5	0.6	0.7
Agricultural Banks			
ROE	8.4	8.9	8.9
ROA	0.7	0.8	0.8

<sup>1</sup>Nonagricultural banks have less than 5 percent of total loans as agricultural loans. All figures are based on end-of-year data.

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## EIGHTH DISTRICT AGRICULTURAL DATA

<b>Prices and Costs<sup>1</sup></b>	<b>Dec. 1986</b>	<b>Jan. 1987</b>	<b>Feb. 1987</b>	<b>Average for 1986</b>	<b>Percent Change</b>	
					<b>Year-To-Date 1987<sup>2</sup></b>	<b>Same Month Year Ago</b>
CONSUMER PRICE INDEX (% change)						
Nonfood	0.1%	0.5%	0.4%	0.0%	0.9%	1.6%
Food	0.1	1.6	0.4	0.3	2.1	5.0
PRODUCTION COSTS FOR FARMERS (% change)						
Agricultural machinery and equipment	-0.1	0.4	0.1	0.1	0.5	0.9
Mixed Fertilizers	0.0	-1.0	3.5	-0.3	2.4	-1.0
Other Agricultural chemicals	0.2	-0.8	-1.5	0.5	-2.3	0.0
Gasoline	1.5	9.9	6.2	-4.3	16.6	-22.0
PRICES RECEIVED BY FARMERS (% change)						
All products	-2.4	0.0	0.0	-0.5	0.0	-0.8
Livestock	-2.8	0.7	1.4	0.3	2.1	8.3
Crops	-3.9	0.0	-2.0	-1.4	-2.0	-11.8
FEEDER CATTLE						
Wholesale price - Kansas City (\$/cwt.)	\$65.00	\$69.00	\$71.38	\$62.34	9.8	14.4
FEEDER PIGS						
Wholesale price - So. Missouri (\$/head)	\$47.69	\$47.00	\$53.96	\$45.61	13.2	44.8
BROILERS						
Wholesale price - 12-city (¢/lb.)	49.95¢	51.77¢	49.80¢	56.90¢	-0.3	1.7
TURKEYS						
Wholesale price - New York, 8-16 lb. young hens (¢/lb.)	68.24¢	53.58¢	N.A.	71.92¢	-21.5	-11.1
CORN						
Wholesale price - No. 2, yellow - St. Louis (\$/bu.)	\$ 1.69	\$ 1.61	\$ 1.57	\$ 2.08	-7.1	-37.2
SOYBEANS						
Wholesale price - No. 1, yellow - Central Illinois (\$/bu.)	\$ 4.96	\$ 4.98	\$ 4.89	\$ 5.23	-1.4	-9.1
WHEAT						
Wholesale price - No. 1, hard winter - Kansas City (\$/bu.)	\$ 2.68	\$ 2.70	\$ 2.80	\$ 2.93	4.5	-15.2
LONG-GRAIN RICE						
Wholesale price - Arkansas (\$/cwt.)	\$11.88	\$11.88	\$11.88	\$13.78	0.0	-31.1
COTTON						
Average price received by U.S. Farmers (¢/lb.)	54.70¢	51.00¢	46.80¢	54.72¢	-14.4	-17.8

<b>U.S. Exports</b>	<b>Dec. 1986</b>	<b>Jan. 1987</b>	<b>Feb. 1987</b>	<b>Average for 1986</b>	<b>Percent Change</b>	
					<b>Year-To-Date 1987<sup>2</sup></b>	<b>Same Period Year Ago</b>
Corn (mil. bu.)	111.0	104.0	N.A.	89.8	-6.3%	-37.4%
Soybeans (mil. bu.)	88.2	71.3	N.A.	65.3	-19.2	-15.8
Wheat (mil. bu.)	58.1	76.7	N.A.	82.1	32.0	2.3
Rice (rough equivalent, mil. cwt.)	4.6	N.A.	N.A.	5.9	N.A.	N.A.
Cotton (thou. bales)	543.7	612.5	N.A.	252.4	12.7	229.3



### Non-Real-Estate Farm Debt Outstanding

	Banks			PCAs <sup>3</sup>		
	Outstanding (\$ millions)	Percent Change 12/85 - 12/86	Percent Change 12/84 - 12/86	Outstanding (\$ millions)	Percent Change 12/85 - 12/86	Percent Change 12/84 - 12/86
U.S.	\$31,278	- 11.9%	- 21.0%	\$11,184	- 21.4%	- 37.6%
Eighth District <sup>4</sup>	2,312	- 6.8	- 18.3	NA	NA	NA
Arkansas	401	- 1.1	- 16.5	185	- 24.5	- 48.8
Kentucky	562	- 4.1	- 4.8	200	- 25.8	- 54.7
Missouri	1,066	- 13.1	- 27.2	188	- 30.2	- 52.3
Tennessee	281	- 13.2	- 23.4	211	- 18.4	- 46.6

### Agricultural Bank Loan Performance<sup>5</sup>

	Percent of Farm Loans Overdue at Agricultural Banks			Percent of Total Loans Written Off at Agricultural Banks		
	12/86	12/85	12/84	12/86	12/85	12/84
U.S.	3.4%	4.2%	3.7%	2.50%	2.47%	1.39%
Eighth District <sup>4</sup>	4.5	5.5	4.9	1.80	1.97	1.19
Arkansas	1.7	5.3	3.4	1.33	1.28	.93
Kentucky	4.0	4.7	3.7	1.34	.96	.91
Missouri	4.5	6.7	5.4	2.39	3.01	1.67
Tennessee	2.8	6.0	7.1	1.73	1.65	1.80

### Agricultural Production Loan Interest Rate<sup>6</sup>

	Banks		PCAs	
	2/87	2/86	3/87	3/86
Eighth District Average	10.0%	11.8%	11.0%	12.0%

<sup>1</sup> The consumer price index components are seasonally adjusted. All other data are not seasonally adjusted.

<sup>2</sup> Percent change from December of previous year, based on the most recent month available.

<sup>3</sup> Source: Farm Credit Banks of Louisville and St. Louis, Farm Credit Administration.

<sup>4</sup> Includes all of AR and parts of IL, IN, KY, MO, MS and TN.

<sup>5</sup> Agricultural banks are defined as those with more than 25 percent of total loans in agricultural loans.

<sup>6</sup> 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.