

AN OVERVIEW OF AGRICULTURAL BANKING EXPERIENCE

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Summary of farm loan quality experience at banks

After experiencing a major boom during the last decade, the farm sector is in the fifth year of a period of lower and relatively stagnant income, with poor prospects for near-term improvement. Reduced income flows and the consequent decline in land prices, plus sharply higher interest rates, have in this period produced severe financial stress for those farmers who borrowed heavily to expand their enterprises during the concluding years of the boom. The progressive erosion of the equity of these farmers, who owe most of the total farm debt, has been increasing the incidence of problem farm loans at banks and other farm lenders.

Delinquency data on farm loans at banks are incomplete, in that only large banks report the nonaccrual component of delinquent farm loans. At large banks in California, nonaccrual farm loans were 11.2 percent of outstandings on June 30; in other states, the proportion was 4.3 percent. At banks generally, farm loans past due but still accruing interest reached 3.0 percent of outstanding farm loans.

At agricultural banks (banks at which farm mortgage and production loans are 25 percent or more of total loans), the proportion of loans that are delinquent has been rising, whereas at other small banks it has been falling since early 1983. At 5.5 percent of total loans on June 30, up from 4.7 percent a year earlier, the proportion of loans delinquent at agricultural banks now exceeds the recent cyclical peak in that ratio at other small banks. The nonaccrual component of delinquent loans rose most rapidly, to 1.6 percent compared with 1.0 percent in June 1983.

Net charge-offs of farm loans, which this year are being reported by banks for the first time, totaled a relatively high 0.68 percent of outstanding loans during the first half of 1984. Given the tendency of banks to take relatively more charge-offs toward the end of the year, the first-half level foreshadows full-year charge-offs of perhaps 1.5 to 2.0 percent of farm loans. Relative farm loan charge-offs were highest in California, followed by Nebraska, Iowa, and Missouri. At agricultural banks nationally, all loans charged off during the first half of 1984 rose to nearly double the relative level at other small banks.

More detailed reviews of delinquent farm loans at banks, delinquent loans at agricultural banks, and charge-offs of farm loans and total loans are presented in the last three sections of this report.

Failures and solvency problems among agricultural banks

Until this summer, agricultural banks, which constitute 28 percent of all banks, were underrepresented among banks that had failed. But from June through September, 10 of the 27 banks that failed were agricultural banks. In addition, farm loans constituted more than 10 percent of total loans at another 6 of the banks.

Data on delinquent loans, first reported by banks in December 1982, have proved to be a significant indicator of the degree to which banks are experiencing credit problems that threaten their solvency. For example, of the 605 banks at which delinquent loans exceeded capital at the beginning of 1983, 59 have failed to date. And, at 50 of the 60 insured commercial banks that have failed so far this year, delinquent loans had exceeded capital at the beginning of the year.

Given these relationships, it is disturbing to find that the largest increases in the number of banks at which delinquent loans exceed capital have recently occurred in agricultural states, as shown in Table 1. For the year ended June 30, Iowa led all states with an increase of 25 banks in this predicament, followed by Missouri, Kansas, Nebraska, Texas, Colorado, Minnesota, and Arkansas. This area of increased credit problems centers on the western Corn Belt and other Plains states that have experienced recent droughts as well as a decade-long financial drain from generally unprofitable livestock production, and in which much marginal cropland and irrigated land was brought into production when crop prices were booming. In almost all of these states, however, the proportion of banks at which delinquent loans exceeded capital was relatively low a year earlier, and the recent increase in delinquencies has simply raised that proportion to roughly the national average of 4 percent of all banks. Thus it is the speed of the ongoing deterioration, rather than the current level of problem loans, that supports the concern being expressed by the banking community in the Midwest.

Tables 2a and 2b compare the relative distribution of three groups of banks (small nonagricultural, agricultural, and all Iowa banks), each symmetrically cross-classified by relative capital and relative delinquent loans. Thus in each panel, banks below the diagonal line shown have delinquent loans equal to or greater than capital. Table 2a, which shows data for June 1983, indicates that relatively few agricultural and Iowa banks had severe problems with delinquent loans at that time. But by June 1984, shown in Table 2b, the proportion of agricultural and Iowa banks with such problems had increased significantly.

Table 1

Number and proportion of banks at which delinquent loans exceeded total capital

States with 10 or more such banks on June 30, 1984

Area	Number of banks			Percentage of all banks	
	June 30 1983	June 30 1984	Change	June 30 1983	June 30 1984
U.S.....	538	616	+78	4	4
Arkansas.....	5	12	+7	2	5
California...	52	36	-16	14	8
Colorado.....	24	33	+9	6	8
Illinois.....	41	26	-15	3	2
Indiana.....	14	16	+2	4	4
Iowa.....	7	32	+25	1	5
Kansas.....	14	30	+16	2	5
Kentucky.....	11	12	+1	3	4
Louisiana....	30	33	+3	11	11
Michigan.....	14	13	-1	4	4
Minnesota....	25	33	+8	3	4
Missouri.....	15	39	+24	2	5
Montana.....	11	14	+3	7	8
Nebraska.....	14	29	+15	3	6
Oklahoma.....	31	34	+3	6	7
Oregon.....	20	16	-4	24	21
Tennessee....	34	34	0	10	11
Texas.....	30	44	+14	2	2
Utah.....	14	14	0	23	23
Wisconsin....	18	22	+4	3	4
Wyoming.....	14	14	0	13	12

Table 2a

Percentage distribution of banks by capital and delinquency ratios
June 30, 1983

Delinquent loans as a percentage of total assets	Capital as a percentage of total assets						
	Under to 3.0	3.0 to 5.9	6.0 to 8.9	9.0 to 11.9	12.0 to 14.9	15.0 to 17.9	18.0 and over

Small nonagricultural banks, U.S. (assets under \$500 million)

Under 3.0.....	*	3.6	39.1	17.1	4.5	1.7	3.6
3.0 to 5.9.....	.1	1.4	14.3	5.3	.9	.3	.2
6.0 to 8.9.....	.1	.6	3.0	1.2	.2	.1	.1
9.0 to 11.9.....	*	.3	.9	.3	.1	*	*
12.0 to 14.9.....	*	.1	.2	.1	*	*	
15.0 to 17.9.....	*	.1	.1	.1	*		*
18.0 and over.....	.1	.1	.1	*		*	

Agricultural banks, U.S. (farm loan ratio over 25 percent)

Under 3.0.....		.3	30.0	30.3	10.1	2.5	1.4
3.0 to 5.9.....	*	.4	9.5	7.4	1.6	.4	*
6.0 to 8.9.....	*	.2	2.4	1.4	.4	*	.1
9.0 to 11.9.....		.1	.5	.3	.1	*	
12.0 to 14.9.....			.3	.1		*	
15.0 to 17.9.....			.1	*			
18.0 and over.....	*	*	.1				

All banks, Iowa

Under 3.0.....		.3	37.7	28.1	8.8	1.4	.2
3.0 to 5.9.....		.2	12.2	5.6	1.6		
6.0 to 8.9.....		.5	2.3	.6	.2		
9.0 to 11.9.....			.5				
12.0 to 14.9.....							
15.0 to 17.9.....							
18.0 and over.....							

* Less than 0.05 percent (but at least one bank).

Table 2b

Percentage distribution of banks by capital and delinquency ratios
June 30, 1984

Delinquent loans as a percentage of total assets	Capital as a percentage of total assets						
	Under to 3.0	3.0 to 5.9	6.0 to 8.9	9.0 to 11.9	12.0 to 14.9	15.0 to 17.9	18.0 and over

Small nonagricultural banks, U.S. (assets under \$500 million)

Under 3.0.....	.1	4.8	40.4	15.5	4.3	1.8	3.2
3.0 to 5.9.....	.1	1.9	13.9	5.3	1.1	.3	.3
6.0 to 8.9.....	.1	.6	2.9	.9	.2	*	*
9.0 to 11.9.....	.1	.2	.7	.2	.1	*	*
12.0 to 14.9.....	*	.1	.2	.1	*	*	*
15.0 to 17.9.....	.1	.1	.1	*			
18.0 and over.....	.1	*	.1	*	*		

Agricultural banks, U.S. (farm loan ratio over 25 percent)

Under 3.0.....		.6	25.7	26.8	8.3	2.4	1.5
3.0 to 5.9.....		.6	13.6	7.9	2.0	.5	.1
6.0 to 8.9.....	*	.6	3.1	1.9	.6	.2	*
9.0 to 11.9.....	*	.2	1.4	.4	.1	*	
12.0 to 14.9.....	*	.1	.2	.2	.1		*
15.0 to 17.9.....	*	.1	.2	*			*
18.0 and over.....	*		.1	.1			

All banks, Iowa

Under 3.0.....			30.4	25.2	7.6	1.9	.3
3.0 to 5.9.....		.6	16.3	7.3	1.4	.5	
6.0 to 8.9.....	.2	.5	3.6	1.1	.2		
9.0 to 11.9.....			1.7		.2		
12.0 to 14.9.....		.2		.5			
15.0 to 17.9.....		.2	.2				
18.0 and over.....							

* Less than 0.05 percent (but at least one bank).

Table 3 presents similar panels that trace the progressive development of greater delinquent-loan problems at Iowa banks, at six-month intervals since December 1982. By June 1984, the relative proportion of banks with a severe problem had increased to roughly the national average. Although the proportion thus remains far below that in several other states in which banks had experienced earlier problems with nonagricultural loans (see Table 1), the rate of deterioration and the poor prospects for improved farm economic conditions support the concern being expressed in Iowa.

Table 3

Percentage distribution of Iowa banks
by capital and delinquency ratios

Delinquent loans as a percentage of total assets	Capital as a percentage of total assets						
	Under to 3.0	3.0 to 5.9	6.0 to 8.9	9.0 to 11.9	12.0 to 14.9	15.0 to 17.9	18.0 and over
<u>December 31, 1982</u>							
Under 3.0.....		.9	45.4	26.3	6.2	.8	.2
3.0 to 5.9.....		.6	11.5	3.6	1.4		
6.0 to 8.9.....			2.0	.5	.2		
9.0 to 11.9.....			.3	.2			
12.0 to 14.9.....							
15.0 to 17.9.....							
18.0 and over.....							
<u>June 30, 1983</u>							
Under 3.0.....		.3	37.7	28.1	8.8	1.4	.2
3.0 to 5.9.....		.2	12.2	5.6	1.6		
6.0 to 8.9.....		.5	2.3	.6	.2		
9.0 to 11.9.....			.5				
12.0 to 14.9.....							
15.0 to 17.9.....							
18.0 and over.....							
<u>December 31, 1983</u>							
Under 3.0.....		.2	39.6	24.8	6.8	1.4	
3.0 to 5.9.....		.5	13.3	6.6	1.7	.2	
6.0 to 8.9.....			2.5	1.4	.2		
9.0 to 11.9.....		.3	.2				
12.0 to 14.9.....		.3	.2				
15.0 to 17.9.....							
18.0 and over.....							
<u>June 30, 1984</u>							
Under 3.0.....			30.4	25.2	7.6	1.9	.3
3.0 to 5.9.....		.6	16.3	7.3	1.4	.5	
6.0 to 8.9.....	.2	.5	3.6	1.1	.2		
9.0 to 11.9.....			1.7		.2		
12.0 to 14.9.....		.2		.5			
15.0 to 17.9.....		.2	.2				
18.0 and over.....							

Delinquent farm loans at banks

Banks have been reporting amounts of delinquent farm loans since December 1982; however, the data are incomplete because only relatively large banks (assets of \$100 million or more) report their nonaccrual farm loans. These large banks account for only 31 percent of farm production loans at banks nationally, and for much smaller percentages in highly rural states.

The first two panels of Table 4 present data on farm loans that are past due but still accruing interest, which must be reported by most banks engaged in farm lending. On June 30, 1984, these past due loans represented 3.0 percent of farm loans outstanding, up moderately over the preceding year and evenly divided between loans past due 30 to 89 days and those past due 90 days or more. The proportion of farm loans past due rose more sharply in the western Corn Belt states listed in the table (Iowa, Missouri, and Nebraska), to levels near the national average.

At large banks required to report all categories of delinquent farm loans, the total (past due, nonaccrual, and renegotiated "troubled" debt) also rose during the year ended June 30, reaching a relatively high 9.5 percent of outstanding loans. Farm lending at these banks, however, is disproportionately concentrated in California, where large banks make most farm loans. As shown in the lower panels of Table 4, the total farm loan delinquency rate at large California banks averaged 14.9 percent on June 30, with nonaccrual loans averaging 11.2 percent. In other states, the respective delinquency rates were less than half as high. The high farm loan delinquency rates did not pose a serious threat to the solvency of the large California banks because farm loans represented only about 4 percent of total loans at these banks.

Table 4

Delinquent farm loans as percentage of farm loans outstanding
(Insured commercial banks reporting specified delinquent loans)

Area	June 30 1983	June 30 1984	Percentage of area's bank farm loans at reporting banks
<u>Farm loans past due 30 to 89 days and still accruing interest</u>			
U.S.....	1.3	1.5	91
California.....	2.2	2.3	97
Other states.....	1.2	1.4	90
Iowa.....	1.1	1.3	97
Missouri.....	1.5	1.9	94
Nebraska.....	.9	1.2	97
<u>Farm loans past due 90 days or more and still accruing interest</u>			
U.S.....	1.3	1.5	91
California.....	2.4	1.3	97
Other states.....	1.2	1.5	90
Iowa.....	1.2	1.8	97
Missouri.....	.9	1.9	94
Nebraska.....	.9	1.2	97
<u>Farm loans delinquent (past due, nonaccrual, and renegotiated) at large banks</u>			
U.S.....	8.5	9.5	31
California.....	12.1	14.9	95
Other states.....	6.4	7.1	24
Iowa.....	6.9	6.2	12
Missouri.....	10.4	10.8	11
Nebraska.....	5.2	5.7	15
<u>Nonaccrual farm loans at large banks</u>			
U.S.....	4.6	6.5	31
California.....	6.9	11.2	95
Other states.....	3.4	4.3	24
Iowa.....	3.5	4.1	12
Missouri.....	7.3	5.2	11
Nebraska.....	3.3	3.8	15

Large banks have total assets of \$100 million or more.

Delinquent loans at agricultural banks

Whereas small banks are not required to report all categories of delinquent farm loans, banks of all sizes are required to report all categories of total delinquent loans. Thus additional information on rural credit experience can be obtained by examining total loan delinquencies at agricultural banks, shown in Table 5.

During the year ended June 30, all categories of delinquent loans rose at agricultural banks, with nonaccrual loans increasing most sharply. In contrast, delinquency rates at large banks and at small nonagricultural banks fell as the general business recovery continued. Total delinquent loans at agricultural banks rose to 5.5 percent of total loans on June 30, up from 4.7 percent a year earlier, while the proportion at small nonagricultural banks fell from 4.9 percent to 4.3 percent.

Table 5

Delinquent loans as percentage of total loans outstanding
(Insured commercial banks)

Class of banks	June 30 1983	June 30 1984
<u>Loans delinquent (past due, nonaccrual, and renegotiated)</u>		
All banks.....	5.5	4.6
Large.....	5.9	4.7
Small.....	4.8	4.5
Nonagricultural.....	4.9	4.3
Agricultural.....	4.7	5.5
<u>Loans past due 30 to 89 days and still accruing interest</u>		
All banks.....	1.9	1.7
Large.....	1.8	1.5
Small.....	2.1	2.0
Nonagricultural.....	2.2	2.0
Agricultural.....	1.8	2.0
<u>Loans past due 90 days or more and still accruing interest</u>		
All banks.....	1.0	.7
Large.....	.8	.5
Small.....	1.4	1.1
Nonagricultural.....	1.3	1.0
Agricultural.....	1.6	1.7
<u>Nonaccrual loans</u>		
All banks.....	2.2	2.0
Large.....	2.8	2.4
Small.....	1.2	1.2
Nonagricultural.....	1.2	1.2
Agricultural.....	1.0	1.6

Large banks have total assets of \$500 million or more.

Agricultural banks are banks at which total farm loans are 25 percent or more of total loans.

Charge-offs of farm loans and total loans

Net charge-offs of farm loans, being reported by banks for the first time this year, were a relatively high 0.68 percent of loans outstanding during the first half of this year--0.30 percent in the first quarter and 0.38 percent in the second (Table 6). Net charge-offs were especially high in California, and were also well above the national average in the western Corn Belt states where farm loan difficulties became more pronounced during the past year.

Net charge-offs of all loans at agricultural banks, at 0.41 percent during the first half of 1984, were well below the rate for farm loans. However, as shown in the second panel of Table 6, that rate represented another substantial increase from the very low level that had prevailed earlier, and moved the charge-off rate at agricultural banks well above that posted by other small banks.

Historical and state data

A more detailed 48-page report, Agricultural Banking Experience, also dated October 22, 1984, presents historical and state data on delinquent farm loans and farm loan losses, as well as historical data on the loan-loss, profit, and capital ratios of agricultural and other smaller banks. The latter section updates the data and discussion of rural banking experience presented earlier in "A Financial Perspective on Agriculture," Federal Reserve Bulletin, January 1984.

Table 6

Net charge-offs as percentage of specified loans outstanding
(Insured commercial banks reporting specified charge-offs)

Area or class of banks	1981	1982	1983	1984
<u>Farm loans, first half of year</u>				
U.S.....	na	na	na	.68
California.....	na	na	na	1.52
Other states.....	na	na	na	.58
Iowa.....	na	na	na	.93
Missouri.....	na	na	na	.84
Nebraska.....	na	na	na	.97
<u>Total loans, first half of year</u>				
Small banks.....	.13	.17	.28	.25
Nonagricultural banks...	.13	.17	.28	.23
Agricultural banks.....	.09	.15	.29	.41
Iowa.....	.08	.16	.30	.54
Missouri.....	.15	.18	.33	.50
Nebraska.....	.03	.11	.34	.68
<u>Total loans, full year</u>				
Small banks.....	.41	.62	.71	
Nonagricultural banks...	.40	.61	.67	
Agricultural banks.....	.42	.69	.94	
Iowa.....	.33	.62	.90	
Missouri.....	.50	.75	1.02	
Nebraska.....	.30	.73	.93	

Small banks have total assets under \$500 million.

Agricultural banks are banks at which total farm loans are 25 percent or more of total loans.