

Farm Credit Developments and the Financial Condition of Agricultural Banks

A preliminary report for the National Agricultural Credit Committee

March 16, 1987

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The analyses and conclusions in this report are solely those of the author and do not necessarily reflect the views of the Board of Governors or of other members of its staff.

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Deterioration in the condition of farm loans at banks and of loans at agricultural banks was reversed during 1986, as improving trends that began in the second quarter continued through the fourth quarter. Only early hints of such improvement were available last November when I presented a paper on "Financial Condition of Agricultural Banks" at the AAEA Symposium on Financial Stress in Agriculture, to be published with other symposium papers in a special edition of the Agricultural Finance Review. In this preliminary report, therefore, I am providing timely information on the new trends with the caution that data shown for the fourth quarter are near-final rather than final figures (also be warned that chart and table numbers are erratic). The first part of this report also shows current data on total farm debt that, in effect, replace USDA forecasts that are now obsolete.

For this report, data for December 1986 were available for virtually all agricultural banks, tabulated as of March 11. Estimates for farm loans nationally were tabulated as of March 2, when reports were available for 99.6 percent of all banks. In April, I will prepare a final report that will also include and update more general information on the farm financial situation presented in last year's "The Farm Credit Situation and the Status of Agricultural Banks" and in remarks at the USDA's Outlook Conference.

Because most farm finance analysts read (and probably clip) the occasional stories on farm banks in the Wall Street Journal, this footnote is intended to anticipate inquiries relating to the third-quarter change in the number of agricultural banks with more "problem" loans than capital and in the amount of "farm land" owned by agricultural banks. In contrast to recent WSJ stories, this report provides no data on farm land owned by banks, and shows that the number of vulnerable agricultural banks declined during the third quarter of 1986. Using tabulations of banking data made by a private firm, the WSJ on November 19 reported that 207 agricultural banks had more problem loans than capital as of June 1986, and on February 11 reported 209 such banks as of September 1986. Using the WSJ definitions of agricultural banks (farm loan ratio of 25 percent or more) and of problem loans (nonperforming loans plus restructured loans), my tabulations indicate that the number of such banks fell from about 230 in June to the number the WSJ reported for September. On March 2, the WSJ reported that farm land owned by agricultural banks rose by 12 percent during the third quarter, to a total of \$795 million. Banks do not report holdings of farm land, but rather holdings of a broader item called "other real estate owned," (that is, other than bank premises), which the WSJ called farm land. My tabulations indicate that such real estate owned by agricultural banks rose by 5 percent during the third quarter, to the total the WSJ reported for September. If my tabulations are correct, a possible explanation is that the WSJ received faulty tabulations of the June data, which would produce erroneous indications of third-quarter changes when used in conjunction with correct tabulations of the September data.

Trends in farm debt (including operator households)

Total farm debt (including operator households and CCC loans), which peaked at over \$220 billion in the summer of 1983 after having risen every year since 1945, dropped to about \$188 billion at the end of 1986.

Debt excluding CCC loans--the relevant debt total for studies of financial stress--peaked at \$205 billion (on a year-end basis) in 1983 and has dropped by \$36 billion to about \$169 billion (line 3 of Table 3). Such debt fell by \$19 billion, or 10 percent, in 1986, on top of a decline of \$16 billion in 1985. Debt secured by farm real estate (line 9) has been reduced more slowly than non-real-estate debt (line 17).

Four factors are probably contributing in a major way to the ongoing reduction in farm debt: (1) lenders have been charging off substantial debt (commercial banks alone charged off \$3.4 billion in farm non-real-estate loans during the past three years); (2) farm assets are being transferred from heavily indebted owners to cash holders (including lenders holding foreclosed property as well as cash buyers); (3) borrowers with liquid assets (e.g., bank deposits) whose yields have recently fallen far below interest rates on their farm debt have been using those assets to repay debt; and (4) demand for new loans is low as operating expenses have been reduced by crop acreage cutbacks and lower fuel prices, and as capital investment in machinery and livestock breeding herds has been curtailed.

Farm real estate loans at commercial banks appear to be bucking the overall trend, as they have risen by more than 10 percent annually over the past four years (line 10). But data on the terms and characteristics of real-estate-secured loans being made by banks, from the new coverage of such loans by the Federal Reserve's survey of terms of bank lending, indicate that most such loans have relatively short maturities and that a majority are for farm operating and other non-real-estate purposes. The longer-term loans, however, would tend to make up a larger proportion of loans outstanding than of loans made.

Table 3

Annual percentage change in farm debt outstanding (including operator households)

Type of debt and lender group		1980	1981	1982	1983	1984	1985	1986	Amount outstanding, billions of dollars, 12/31/86
1	Total debt.....	10	11	8	0	-2	-4	-8	188.0
2	Commodity Credit Corp.....	-2	61	93	-30	-19	94	12	19.0
3	Total debt excluding CCC...	10	9	4	2	-1	-8	-10	169.0
4	Banks.....	1	3	8	9	3	-6	-6	43.9
5	Farm Credit System.....	17	16	5	0	-2	-13	-18	48.7
6	Life insurance companies...	6	1	-2	-1	-2	-5	-6	11.1
7	Farmers Home Adm.....	21	19	3	1	6	6	-1	26.7
8	Individuals and others.....	8	6	2	-1	-7	-11	-10	38.5
9	Real estate debt.....	12	11	4	2	-1	-6	-8	96.7
10	Banks.....	-1	-3	1	11	9	12	12	12.7
11	Federal Land Banks.....	21	21	9	2	1	-9	-16	37.6
12	Life insurance companies...	6	1	-2	-1	-2	-5	-6	11.1
13	Farmers Home Adm.....	8	13	4	4	6	4	-1	10.3
14	Individuals and others.....	8	5	1	1	-7	-9	-8	25.0
15	Non-real-estate debt.....	8	11	11	-3	-3	-2	-8	91.2
16	Commodity Credit Corp.....	-2	61	93	-30	-19	94	12	19.0
17	N.r.e. debt excluding CCC..	8	8	4	1	-1	-11	-12	72.2
18	Banks.....	2	4	10	8	1	-10	-12	31.2
19	PCAs and FICBs*.....	9	8	-3	-6	-7	-23	-24	11.1
20	Farmers Home Adm.....	31	23	2	-1	7	7	-2	16.4
21	Individuals and others.....	7	6	4	-3	-5	-15	-12	13.5

* Farm loans outstanding at production credit associations plus Federal Intermediate Credit Bank discounts of loans made by agricultural credit corporations and similar "other financing institutions."

Loans shown correspond to those included in the USDA's farm balance sheet (including operator households). For example, farm debt owed to the Farm Credit System excludes business loans (loans at the Banks for Cooperatives and about 2.5 percent of total PCA loans) and home mortgage loans (about 6 percent of Federal Land Bank loans).

Data prior to 1986 are from USDA, ERS, ECIFS 5-2 (November 1986), Tables 51, 53, and 55 (FmHA data for 1985 are corrected). Data for 1986 are based on year-end lender reports, except that data for life insurance companies and "individuals and others" are preliminary estimates made by the author.

Trends in farm debt (excluding operator households)

USDA discussions and forecasts of farm debt in 1986 and 1987 have been couched in terms of debt excluding operator households. The USDA forecast of \$186.2 billion of such debt outstanding on December 31, 1986, first made last November but published again in Agricultural Finance Situation and Outlook, AFO-27, March 1987, has proved too high by about \$10 billion. Debt owed to banks and the Farm Credit System was reduced much more than forecast during the fourth quarter of 1986, and CCC loans came in \$3 billion lower than forecast. In addition, FmHA loans inexplicably had been forecast to rise by \$1.8 billion in 1986, even though the eventual change--a reduction of about \$0.3 billion--was clearly foreshadowed in earlier quarterly reports.

Table 3a shows new estimates of debt (excluding households) that reflect these developments and changes. For this compilation, I have also re-estimated debt owed to "individuals and others," using the assumption that its percentage change equalled the average percentage change of debt of the same type owed to reporting lending institutions, including FmHA but not CCC. (This is a relatively conservative procedure for 1986. If I had used the assumptions used by USDA in estimating the 1985 change, the estimate of such debt in 1986 would have been still lower, by another \$2.5 billion.)

As the table indicates, by the end of 1986, total farm debt (excluding households) was down to about \$176 billion, or nearly to the level that the USDA had forecast for the end of 1987. Furthermore, fragmentary evidence indicates that the downward trend has continued. For example, farm non-real-estate loans at the 168 large weekly-reporting commercial banks fell by \$0.5 billion, or 8 percent, during January and February--and such banks were charging an average effective rate of only 8.4 percent on such loans (as shown later in Table 6).

Debt data for December 31, 1985, have also been corrected for an inadvertent overstatement of FmHA non-real-estate debt by \$412 million in Colorado and national totals published by USDA in ECIFS 5 and AFO-27. In particular, users of Colorado farm debt totals and ratios published in USDA, ERS, ECIFS 5-3, January 1987, should be sure to make this correction.

Table 3a

Annual percentage change in farm debt outstanding (excluding operator households)

Type of debt and lender group	1980	1981	1982	1983	1984	1985	1986	Amount outstanding, billions of dollars, 12/31/86
1 Total debt.....	10	11	8	-1	-2	-4	-8	176.4
2 Commodity Credit Corp.....	-2	61	93	-30	-19	94	12	19.0
3 Total debt excluding CCC...	10	9	4	2	-1	-8	-10	157.4
4 Banks.....	2	3	8	9	3	-6	-6	41.4
5 Farm Credit System.....	17	16	5	0	-2	-13	-18	45.4
6 Life insurance companies...	6	1	-2	-1	-2	-5	-6	10.4
7 Farmers Home Adm.....	21	19	3	1	7	6	-1	23.9
8 Individuals and others.....	8	6	2	-1	-6	-11	-10	36.4
9 Real estate debt.....	12	11	4	3	-1	-5	-8	89.4
10 Banks.....	0	-2	1	11	10	12	12	11.7
11 Federal Land Banks.....	21	21	9	2	1	-9	-16	34.7
12 Life insurance companies...	6	1	-2	-1	-2	-5	-6	10.4
13 Farmers Home Adm.....	9	13	4	4	6	4	-1	9.5
14 Individuals and others.....	8	5	1	1	-7	-9	-8	23.1
15 Non-real-estate debt.....	8	11	11	-4	-3	-1	-8	87.0
16 Commodity Credit Corp.....	-2	61	93	-30	-19	94	12	19.0
17 N.r.e. debt excluding CCC..	8	8	4	1	-1	-11	-12	68.0
18 Banks.....	2	4	10	8	1	-10	-12	29.7
19 PCAs and FICBs*.....	9	8	-3	-6	-7	-23	-24	10.6
20 Farmers Home Adm.....	31	23	2	-1	7	7	-2	14.4
21 Individuals and others.....	7	6	4	-3	-5	-15	-12	13.3

* Farm loans outstanding at production credit associations plus Federal Intermediate Credit Bank discounts of loans made by agricultural credit corporations and similar "other financing institutions."

Data prior to 1986 are from USDA, ERS, ECIFS 5-2 (November 1986), Tables 50, 52, and 54 (FmHA data for 1985 are corrected). Similar data are also shown in USDA, ERS, AFO-27 (March 1987), Table 9 and Appendix tables 1 and 2.

Data for 1986 are based on estimates shown in Table 3 (see footnotes to Table 3).

Farm loan delinquencies and charge-offs at commercial banks

The volume of problem farm non-real-estate loans at commercial banks peaked early in 1986 and has declined considerably since then. The trend reversal in the proportion of such farm production loans in nonaccrual status at smaller banks (assets under \$300 million) appears especially significant, because this delinquency rate had risen steadily each quarter from 0.3 percent in December 1982 (when delinquency data were first collected) to 5.7 percent in March 1986. Since March it has dropped steadily, to 4.6 percent on December 31.

At all banks, \$2.9 billion of farm non-real-estate loans were delinquent (nonperforming or past due 30 days or more) on December 31, 1986, compared with \$3.6 billion a year earlier. The delinquency rate dropped to 9.4 percent from 10.1 percent a year before, putting it well below the peak of 13.9 percent on March 31 (top panel of Chart 2). Nonaccrual loans fell to \$1.9 billion, compared with \$2.2 billion a year earlier, and the proportion of outstanding loans in nonaccrual status fell from 6.1 percent to 5.9 percent (middle panel of Chart 2). Additional details are shown in Table 4.

Net charge-offs of farm non-real-estate loans are estimated to have been slightly lower in 1986 than in 1985 (lower panel of Chart 2), totaling \$1.2 billion, or 3.4 percent of farm non-real-estate loans outstanding at the beginning of the year. Net charge-offs had totaled \$0.9 billion in 1984 and \$1.3 billion in 1985. In both the third and fourth quarters of 1986, net charge-offs were below their year-earlier level--the first such experience since reporting of these data began in 1984 (Table 5).

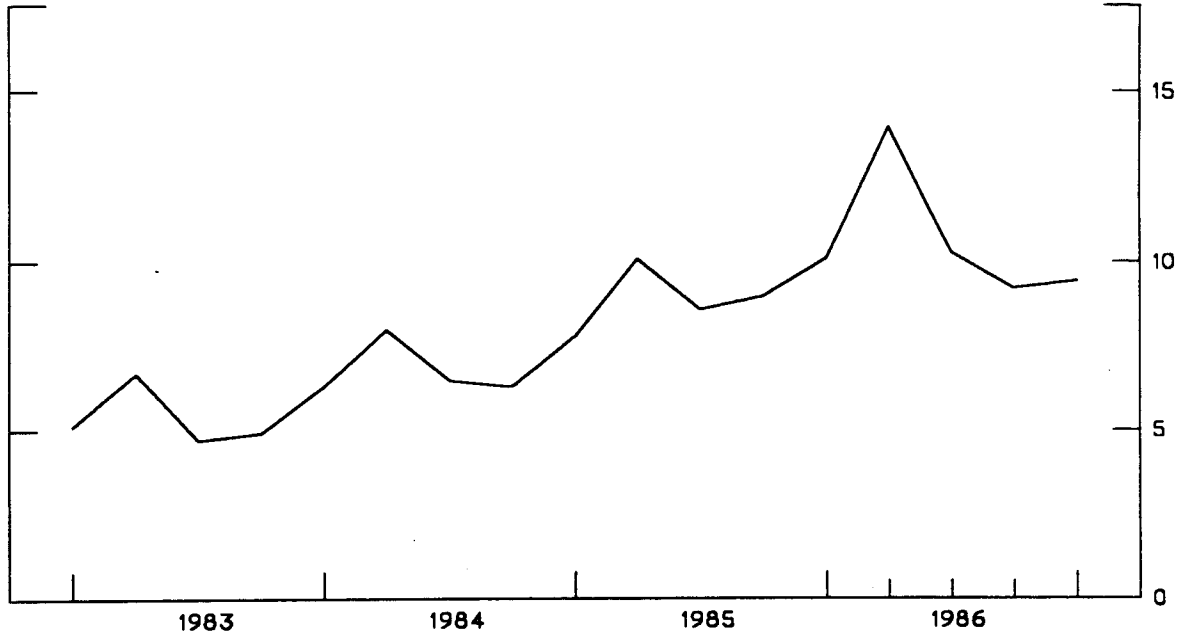
Analysts who received an earlier preliminary report, "Financial Condition of Agricultural Banks: Supplemental Report to the AAEA Task Force on Financial Stress," February 20, 1987, may note that farm loan charge-offs in 1986 are now estimated to be somewhat below rather than above those of 1985. Be assured that estimate shown here is the correct one. In the earlier work, an arithmetic error in the computation of charge-offs in the third quarter also affected the early ratio estimates then being made for charge-offs in the fourth quarter and the full year.

Chart 2

Delinquency and Charge-off Rates on Farm Production Loans
Insured Commercial Banks

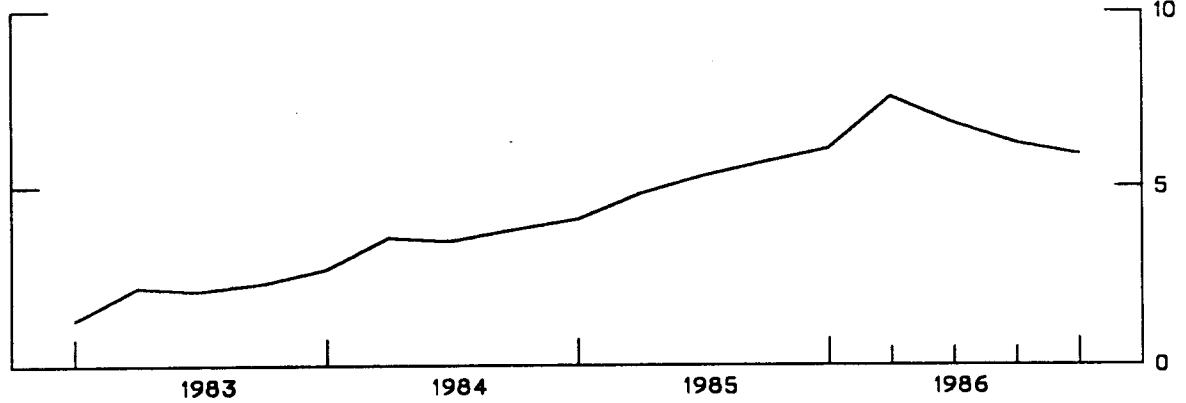
Past Due and Nonperforming Loans

End of quarter, percent



Nonaccrual Loans

End of quarter, percent



Net Charge-offs in Quarter

Quarterly, percent

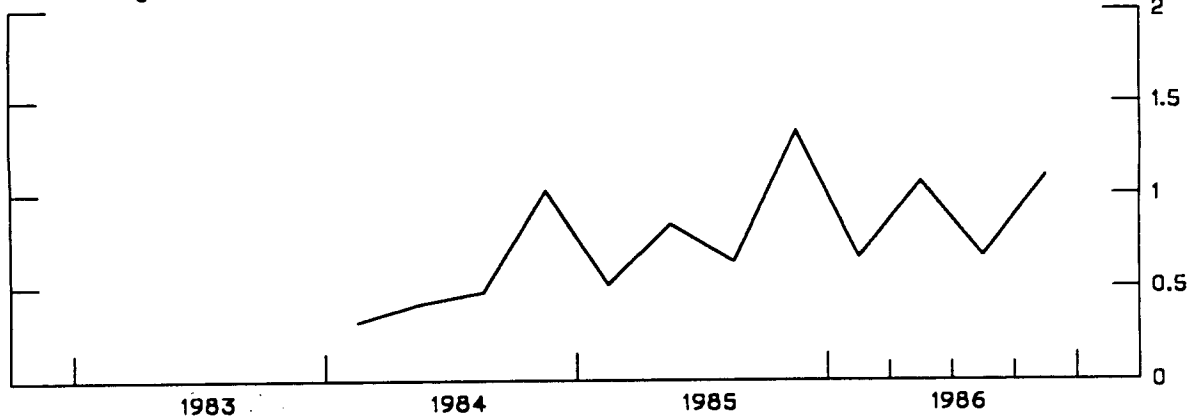


Table 4

Estimated delinquent farm non-real-estate loans
Insured commercial banks
December 31

Class of delinquent loans	1982	1983	1984	1985	1986
	<u>Billions of dollars</u>				
Total.....	1.9	2.5	3.1	3.6	2.9
Past due 30 to 89 days and still accruing.....	.9	1.0	1.0	1.0	.8
Nonperforming.....	.9	1.5	2.1	2.6	2.2
Past due 90 days or more and still accruing.....	.4	.4	.4	.4	.3
Nonaccrual.....	.5	1.1	1.6	2.2	1.9
<u>Addendum:</u> Restructured loans in compliance with modified terms**.....	*	.1	.1	.2	.4
	<u>As percentage of outstanding farm non-real-estate loans</u>				
Total.....	5.1	6.3	7.8	10.1	9.4
Past due 30 to 89 days and still accruing.....	2.6	2.5	2.6	2.8	2.4
Nonperforming.....	2.5	3.8	5.2	7.3	7.0
Past due 90 days or more and still accruing.....	1.2	1.1	1.1	1.2	1.1
Nonaccrual.....	1.3	2.7	4.1	6.1	5.9
<u>Addendum:</u> Restructured loans in compliance with modified terms**.....	.1	.1	.2	.5	1.4

* Less than 0.05.

** Before June 1986, "renegotiated 'troubled' debt."

Data are estimates of national totals. After 1984, estimates are based on reports from banks that hold about 92 percent of farm non-real-estate loans. Earlier, only large banks that held about one-fourth of such loans reported nonaccrual and renegotiated farm loans; for other banks, estimates of these items are based on study of delinquent total loans at these banks.

Table 5

Estimated net charge-offs of non-real-estate farm loans
Insured commercial banks

Period	Estimated amount, millions of dollars	As percentage of such loans outstanding at beginning of period
<u>Annual</u>		
1984.....	900	2.30
1985.....	1,300	3.28
1986.....	1,200	3.38
<u>Quarterly</u>		
1984-Q1.....	120	.31
-Q2.....	160	.41
-Q3.....	195	.47
-Q4.....	425	1.02
1985-Q1.....	200	.51
-Q2.....	320	.84
-Q3.....	255	.64
-Q4.....	525	1.34
1986-Q1.....	235	.66
-Q2.....	360	1.07
-Q3.....	230	.67
-Q4.....	370	1.10

Data are estimates of national charge-offs of farm non-real-estate loans, based on reports from banks that hold about 94 percent of the outstanding national volume of such loans. Additional uncertainty of the estimates arises because small banks report only charge-offs of "agricultural" loans as defined by each bank for its internal purposes. Banks first reported these data on the March 1984 Report of Income.

Farm loan interest rates at commercial banks

Preliminary data indicate that interest rates on non-real-estate farm loans made by banks averaged 10.1 percent in the Federal Reserve System's February 1987 survey of terms of bank lending, down by 4.7 percentage points from the most recent peak reached in August 1984 (Table 6). At large banks, at which farm loan rates tend to follow more closely the national prime rate, the decline has been sharper--6.0 percentage points, to an average level of 8.4 percent in February. At smaller banks, where farm loan rates appear to reflect the average internal cost of funds, the average rate has fallen by 3.7 percentage points from its recent peak, reaching 11.2 percent in November.

On average, farm loan rates have been lower at large banks since mid-1982, after being higher at such banks during most of the preceding five years. Before the advent of money-market certificates of deposit and the subsequent removal of ceilings on interest rates paid on deposits, farm loan rates at small banks changed little during interest-rate cycles in national financial markets, whereas farm loan rates at large banks moved with the national prime rate. Since those regulatory changes, farm loan rates at both groups of banks have moved cyclically, but at small banks the average farm loan rate has not moved as rapidly or as much--either up or down--as the national prime rate or the average farm loan rate at large banks. At the major cyclical peak in August 1981, for example, farm loan rates at small banks averaged 19.1 percent, compared with 20.8 percent at large banks.

Interest rates on individual farm loans at banks show considerable variation. In the first week of February 1987, nearly one-fifth of the new non-real-estate farm loan volume was at rates lower than 8 percent, while two-fifths was at rates of 11 percent or higher (Table 7). At large banks, 95 percent of the loan volume was made at rates below 10 percent, compared with only 17 percent at smaller banks.

Table 6

Average effective interest rate on non-real-estate farm loans
made by commercial banks
(percent)

Period	All banks	Large banks	Other banks
<u>Annual</u>			
1977.....	8.8	8.5	9.0
1978.....	9.6	10.2	9.4
1979.....	11.9	13.6	11.4
1980.....	15.2	16.2	15.0
1981.....	18.5	19.8	18.1
1982.....	16.7	16.1	17.0
1983.....	13.5	12.1	14.1
1984.....	14.1	13.1	14.4
1985.....	12.8	11.2	13.4
1986.....	11.5	9.6	12.1
<u>Quarterly</u>			
1983-Q1.....	13.8	12.5	14.1
-Q2.....	13.2	12.0	13.9
-Q3.....	13.6	12.2	14.1
-Q4.....	13.6	11.8	14.2
1984-Q1.....	13.5	12.2	14.1
-Q2.....	14.2	13.3	14.5
-Q3.....	14.8	14.4	14.9
-Q4.....	14.2	13.4	14.4
1985-Q1.....	13.2	11.7	13.8
-Q2.....	13.0	11.5	13.6
-Q3.....	12.3	10.6	12.9
-Q4.....	12.3	10.6	13.1
1986-Q1.....	12.0	10.3	12.8
-Q2.....	11.5	9.7	12.0
-Q3.....	11.4	9.3	12.1
-Q4.....	10.8	8.9	11.5
1987-Q1.....	10.1	8.4	11.2

Effective rates shown are estimates from the Federal Reserve survey of terms of bank lending to farmers. For additional information, see the footnotes to Table 7.

In recent quarters, most "large banks" (survey strata 1 to 3) had over \$600 million in total assets, and most "other banks" (survey strata 4 to 6) had total assets below \$600 million.

Data for 1987-Q1 are preliminary, near-final survey results that may be changed slightly by final editing.

Table 7

Percentage distribution of non-real-estate farm loans made by banks,
by effective interest rate

Effective interest rate (percent)	February											Feb. 1986	May 1986	Aug. 1986	Nov. 1986	Feb. 1987
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987					
All loans.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Under 6.0.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.0 to 6.9.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
7.0 to 7.9.....	8	1	-	-	-	-	-	-	-	-	-	-	19	-	1	19
8.0 to 8.9.....	46	38	4	1	-	-	-	-	-	8	16	8	6	11	6	16
9.0 to 9.9.....	41	50	17	1	-	-	1	-	1	5	13	5	12	15	11	13
10.0 to 10.9...	3	9	35	2	-	-	5	3	8	7	11	7	11	12	13	11
11.0 to 11.9...	-	1	19	2	-	-	5	13	10	21	26	21	33	16	29	26
12.0 to 12.9...	-	-	12	7	1	-	13	17	16	23	12	23	22	25	25	12
13.0 to 13.9...	-	-	6	29	3	-	24	28	39	31	2	31	13	16	2	2
14.0 to 14.9...	-	-	6	31	4	2	35	28	15	4	-	4	2	3	1	-
15.0 to 15.9...	-	-	-	10	9	6	12	8	10	-	-	-	-	1	-	-
16.0 to 16.9...	-	-	-	10	21	13	4	2	1	-	-	-	-	-	-	-
17.0 to 17.9...	-	-	-	4	18	39	1	-	-	-	-	-	-	-	-	-
18.0 to 18.9...	-	-	-	2	16	27	1	-	-	-	-	-	-	-	-	-
19.0 to 19.9...	-	-	-	-	7	10	-	-	-	-	-	-	-	-	-	-
20.0 to 20.9...	-	-	-	-	8	3	-	-	-	-	-	-	-	-	-	-
21.0 to 21.9...	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-
22.0 to 22.9...	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
23.0 to 23.9...	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
24.0 to 24.9...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.0 and over..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Percentage distribution of the estimated total dollar amount of non-real-estate farm loans of \$1,000 or more made by insured commercial banks during the week covered by the survey, which is the first full business week of the month specified.

Data are estimates from the Federal Reserve survey of terms of bank lending to farmers.

Data for February 1987 are preliminary, near-final survey results that may be changed slightly by final editing.

Liquidity of agricultural banks

Because of continued weak loan demand, the average loan-deposit ratio at the nation's 4,700 agricultural banks declined further last year to about 52.1 percent on December 31, from 55.9 percent a year earlier and 68.2 percent at the cyclical peak in September 1979. The present level of the loan-deposit ratio was last seen at agricultural banks in the mid-1960s. About one in seven agricultural banks now has a loan-deposit ratio below 35 percent. It is not surprising, therefore, that in surveys conducted by the Chicago, Minneapolis, and Kansas City Reserve Banks on January 1, about three-fourths of rural banks reported that their loan-deposit ratio was lower than desired. Over two-thirds of the banks surveyed in the Minneapolis district and nearly half of those in the Kansas City district said they were actively seeking new farm loan accounts. But while a majority of farmers are highly creditworthy, for reasons already noted most of this group is exhibiting low demand for additional debt and may even be accelerating repayment of loans already outstanding--thus frustrating the rural bankers who desire to increase their farm lending.

Agricultural banks have a farm loan ratio that is above the unweighted average of farm loan ratios at all banks--about 15.7 percent on December 31, 1986. For additional information, see the footnote to Table 8.

Total loan delinquencies and charge-offs at agricultural banks

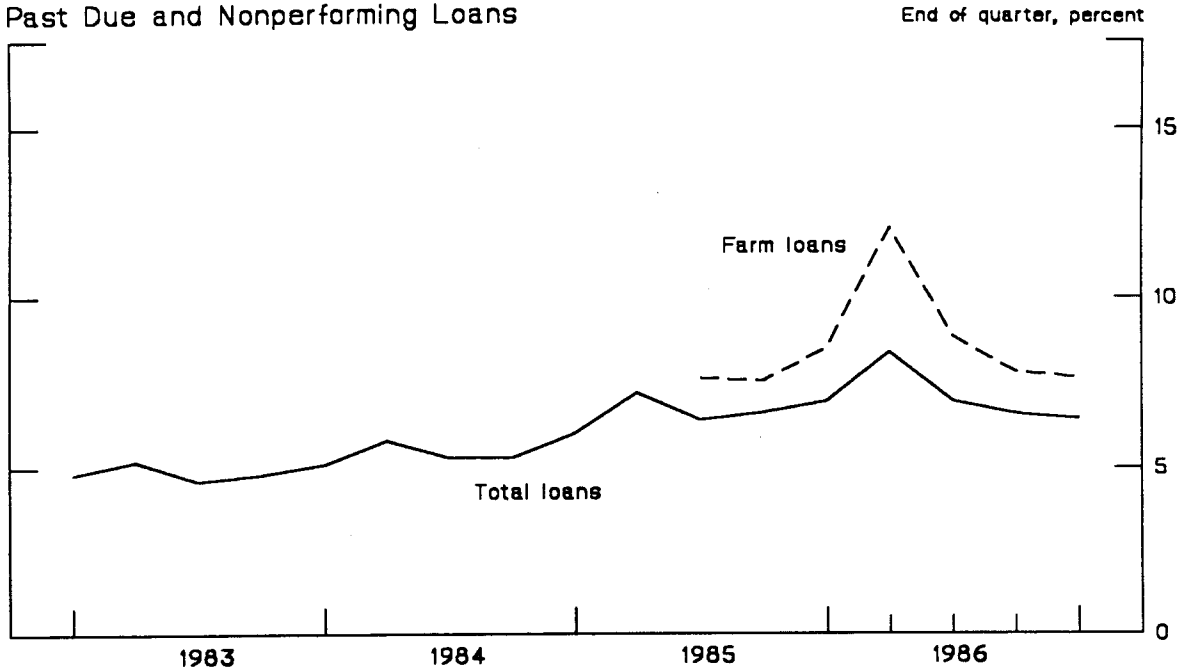
Delinquency rates on all loans at agricultural banks also peaked in early 1986. At 6.4 percent, the proportion of loans past due or nonperforming on December 31, 1986, was well below the year-earlier level of 6.9 percent (top panel of Chart 3). The proportion in nonaccrual status, which had risen in nearly every quarter from 0.8 percent in December 1982 to 3.3 percent in March 1986, fell to 2.8 percent by December, slightly below the year-earlier level (middle panel of Chart 3). Additional details are shown in Table 8.

Total net charge-offs of loans at agricultural banks in 1986 were only slightly above those of 1985 (bottom panel of Chart 3). Through the first three quarters of 1986, charge-offs ran about one-sixth above those of 1985, but fourth-quarter charge-offs were lower (Table 9).

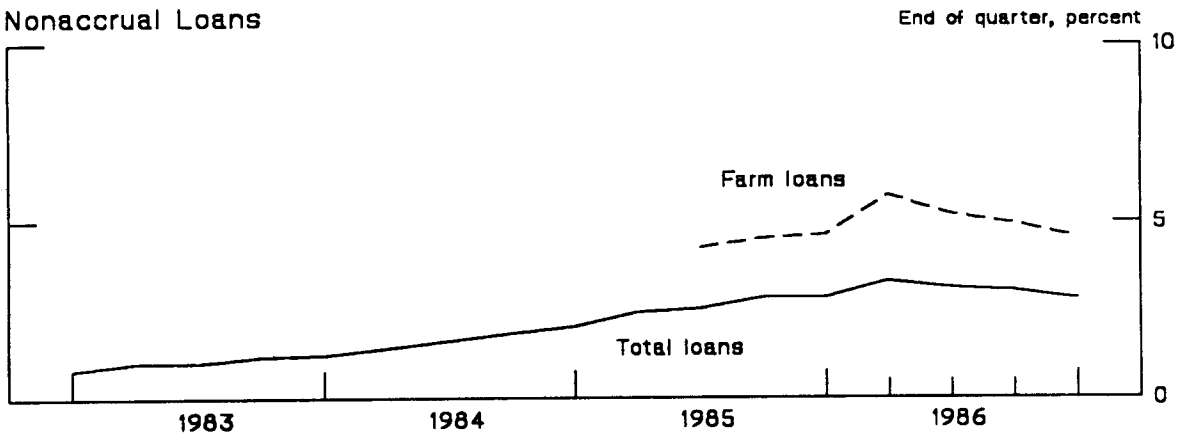
Chart 3

Delinquency and Charge-off Rates on Loans at Agricultural Banks

Past Due and Nonperforming Loans



Nonaccrual Loans



Net Charge-offs in Quarter

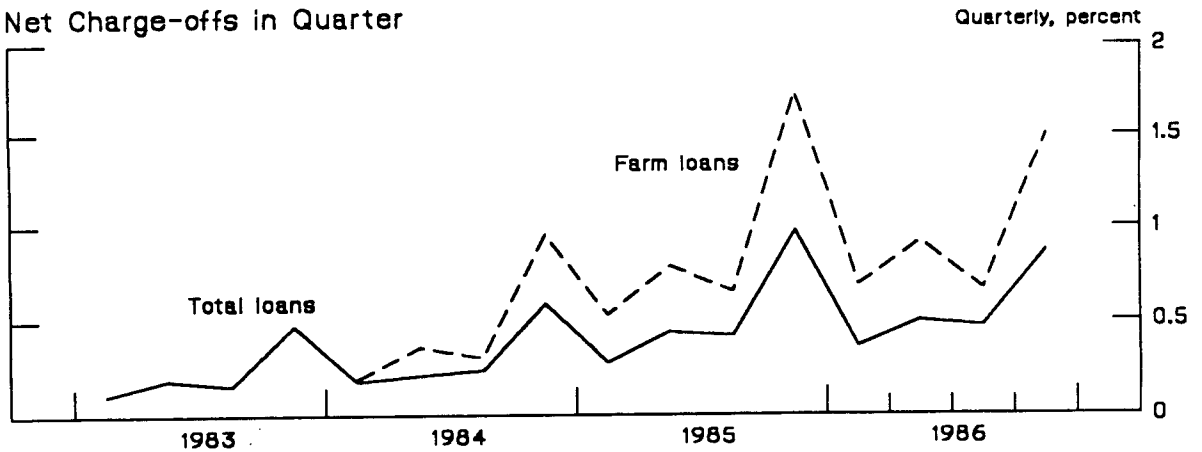


Table 8

Delinquent loans as a percentage of total loans outstanding
Agricultural banks
December 31

Type of delinquency	1982	1983	1984	1985	1986
Total.....	4.8	5.1	6.0	6.9	6.4
Past due 30 to 89 days and still accruing.....	2.4	2.3	2.6	2.8	2.4
Nonperforming.....	2.4	2.7	3.4	4.2	4.0
Past due 90 days or more and still accruing.....	1.6	1.5	1.4	1.4	1.2
Nonaccrual.....	.8	1.2	2.0	2.8	2.8
<u>Addenda (selected assets not included in delinquent loans)</u>					
"Restructured loans in compliance with modified terms" as a percentage of total loans**.....	.2	.2	.2	.3	.8
"Other real estate owned" as a percentage of total assets.....	.2	.3	.4	.6	.7

** Before June 1986, "renegotiated 'troubled' debt" as a percentage of total loans.

Agricultural banks are insured commercial banks at which the ratio of farm loans to total loans is above the unweighted average of such ratios at all insured commercial banks on the date specified. For December 31, 1986, that average of the farm loan ratios is currently estimated to have been about 15.7 percent, with agricultural banks numbering about 4,700. Farm loans accounted for 35 percent of total loans at those agricultural banks, and those banks held 57 percent of all farm loans in the banking system. Farm loans at all banks totaled \$43.9 billion, which was 2.9 percent of total loans at all banks. (All data are for domestic offices of insured commercial banks.)

Table 9

Net charge-offs as a percentage of total loans
outstanding at end of period
Agricultural banks

Period	Charge-offs during year as percentage of total loans outstanding at end of period
--------	--

Annual

1980.....	.32
1981.....	.43
1982.....	.69
1983.....	.93
1984.....	1.22
1985.....	2.12
1986.....	2.21

Quarterly

1983-Q1.....	.11
-Q2.....	.19
-Q3.....	.16
-Q4.....	.47
1984-Q1.....	.18
-Q2.....	.21
-Q3.....	.24
-Q4.....	.59
1985-Q1.....	.28
-Q2.....	.44
-Q3.....	.42
-Q4.....	.98
1986-Q1.....	.36
-Q2.....	.50
-Q3.....	.47
-Q4.....	.88

Profitability of agricultural banks

Profit experience of agricultural banks in 1986 was similar in many respects to that of 1985. As shown in Table 10, the net interest margin fell somewhat in 1986, but noninterest income was bolstered by capital gains on investments (equal to 0.2 percent of assets), leaving net income before loan losses near the level of the last three years. The provision for loan losses --which has been responsible for the decline in the profitability of agricultural banks since 1980--stopped rising in 1986, and so net income was only slightly lower than in 1985. The banks continued to pay dividends to their stockholders at the advanced level first reached in 1981--which has been about double the relative level of dividend payouts in the mid-1970s. Small but positive retained earnings were added to capital in both 1985 and 1986, and these additions sufficed to keep the average ratio of capital to assets near its cyclical peak.

As noted, relative interest income at agricultural banks has decreased slightly faster than interest expense since 1982, eroding the net interest margin from 4.0 percent to 3.6 percent of assets--which, however, was still a bit above pre-1979 levels. In 1986, interest income averaged 9.0 percent of assets, while interest expense averaged 5.4 percent.

In Table 10, all items are expressed as a percentage of total assets of agricultural banks. References to levels and trends of such items in the text above refer to levels and trends of those ratios rather than to the aggregate dollar amounts.

3/11/87

Table 10

Income, expenses, and profits of agricultural banks as a percentage of total assets

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Interest income.....	5.5	5.4	5.1	5.2	6.4	6.3	6.6	6.7	7.0	7.8	9.3	11.0	11.4	10.3	10.6	10.0	9.0
Less: Interest expense.....	2.1	2.3	2.3	2.5	3.0	3.1	3.3	3.4	3.6	4.1	5.3	7.1	7.5	6.5	6.9	6.2	5.4
Equals: Net interest margin.....	3.3	3.2	2.8	2.7	3.5	3.2	3.3	3.3	3.5	3.7	4.0	4.0	3.9	3.8	3.7	3.8	3.6
Plus: Noninterest income.....	.4	.4	.3	.3	.3	.3	.3	.3	.4	.4	.4	.5	.5	.5	.5	.5	.7
Less: Noninterest expense, excluding loan losses..	2.2	2.2	2.1	2.0	2.1	2.2	2.2	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.6	2.7	2.7
Equals: Net income before loan losses.....	1.5	1.4	1.2	1.5	1.7	1.4	1.4	1.4	1.6	1.8	2.0	1.9	1.8	1.7	1.6	1.7	1.6
Less: Provision for loan losses.....	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.2	.3	.4	.6	.8	1.2	1.1
Equals: Net income before taxes.....	1.4	1.2	1.1	1.4	1.5	1.3	1.3	1.3	1.4	1.5	1.7	1.6	1.4	1.1	.8	.6	.5
Less: Income taxes.....	.4	.3	.3	.4	.4	.3	.2	.3	.3	.3	.4	.4	.3	.2	.1	.0	.1
Equals: Net income.....	.8	.9	.9	1.0	1.1	1.0	1.1	1.0	1.1	1.2	1.3	1.2	1.1	1.0	.7	.5	.4
Less: Cash dividends.....	.3	.3	.2	.2	.2	.2	.3	.2	.3	.3	.3	.4	.4	.4	.4	.4	.4
Equals: Retained earnings.....	.7	.7	.7	.8	.9	.8	.8	.8	.8	.9	.9	.8	.7	.6	.3	.1	.1

Distribution of agricultural banks by relative profitability

Although the profitability of agricultural banks has been reduced in the 1980s by higher loan losses and nonperforming loans, agricultural banks were relatively profitable for many years preceding the current difficulties. From 1970 through 1982, their average return on equity hovered between 14 and 16 percent. Within this narrow range, their most profitable years were those in which market interest rates were high and they thus reaped high rates of return on their short-term investments.

During the 1970s, loan losses at agricultural banks were very low each year--even years of general business recession--and only 1 percent of the banks reported negative earnings in any given year. In 1981, as loan charge-offs started to climb, the proportion of agricultural banks reporting negative earnings began to rise, reaching 18 percent in 1985 and 19 percent in 1986 (Table 11). The average return to equity fell from 16 percent in 1980 to 5 percent in 1986.

However, two-fifths of agricultural banks nevertheless earned 10 percent or more on equity in 1986. And, as average net income remained positive, agricultural banks were able, through retention of earnings, to boost their capital at a faster rate than their assets were rising. As shown in the addenda to Table 11, the ratio of total capital to assets thus rose from 9.2 percent in 1980 to 9.5 percent at the end of 1986.

Table 11

Percentage distribution of agricultural banks by rate of return to equity

Net income as percentage of average equity at bank	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
All banks.....	100	100	100	100	100	100	100	100	100	100
Negative.....	1	1	1	1	2	4	7	13	18	19
0 to 4.....	4	3	2	2	3	5	7	9	11	14
5 to 9.....	16	14	8	9	12	15	18	23	22	27
10 to 14.....	45	46	36	33	33	33	36	36	33	28
15 to 19.....	28	28	38	35	32	28	24	15	13	9
20 to 24.....	5	6	12	14	13	11	7	3	3	2
25 and over.....	1	1	3	5	6	4	2	1	1	1
<u>Addenda:</u>										
Average rate of return to equity (percent).....	14	14	15	16	15	14	11	8	6	5
Net charge-offs as percentage of total loans....	.2	.2	.2	.3	.4	.7	.9	1.2	2.1	2.2
Average capital ratio, Dec. 31 (percent)*.....	8.7	8.9	9.0	9.2	9.2	9.3	9.4	9.5	9.6	9.5

* Total primary and secondary capital (items available in bank reports as of the date specified) as a percentage of total assets.

Distribution of agricultural banks by relative delinquencies and losses

Loan delinquencies have been distributed unevenly among agricultural banks. Many agricultural banks have low levels of problem loans, while a relatively small number have very high levels that are pulling up the average. At five-eighths of the banks, the relative level of nonperforming loans was below the agricultural-bank average of 4.0 percent on December 31, 1986. At two-fifths of agricultural banks, nonperforming loans were less than 2 percent of total loans (panel A of Table 12).

Although remaining relatively low, the proportion of agricultural banks with a relatively high level of nonperforming loans had been rising through 1985. This trend was reversed during 1986, as indicated by Panel A of Table 12. The decline in nonperforming loans was widespread, occurring among banks began the year with both high and low delinquency rates. By year-end, the table shows a lower percentage of agricultural banks in each of the delinquency-rate classes above 2 percent.

In contrast to the low incidence of very high delinquency rates, many agricultural banks charged off relatively large amounts of loans during the past two years. Three-fifths of agricultural banks charged off at least 1 percent of total loans during 1986, and three-tenths of the banks charged off 2.5 percent or more--a level likely to equal or exceed operating profits at a typical bank (panel B of Table 12). Clearly, many banks in the majority with only moderate levels of problem loans nevertheless took substantial charge-offs. In 1985, delinquent loans rose in spite of the large charge-offs, but in 1986 the continued large charge-offs helped to put delinquencies on their new downward trend. Thus while loan losses reduced the profitability of agricultural banks somewhat further in 1986, their condition as measured by relative loan quality began to improve.

Table 12

A. Distribution of agricultural banks by relative nonperforming loans

Nonperforming loans as a percentage of total loans	Percentage distribution, December 31				
	1982	1983	1984	1985	1986
Total.....	100.0	100.0	100.0	100.0	100.0
Under 2.0.....	58.7	52.8	44.7	36.4	39.6
2.0 to 4.9.....	29.5	31.9	33.4	33.1	32.2
5.0 to 9.9.....	10.0	12.3	16.4	21.6	19.7
10.0 to 14.9.....	1.4	2.3	3.9	5.6	5.5
15.0 to 19.9.....	.3	.6	1.1	2.1	1.9
20.0 and over.....	.1	.2	.5	1.2	1.0

B. Distribution of agricultural banks by relative net charge-offs

Net charge-offs as a percentage of total loans	Percentage distribution				
	1982	1983	1984	1985	1986
Total.....	100.0	100.0	100.0	100.0	100.0
Under 0.10.....	27.7	25.2	18.5	10.6	9.7
0.10 to 0.49.....	32.0	28.2	23.6	14.5	13.5
0.50 to 0.99.....	19.9	20.5	20.0	18.0	15.7
1.00 to 2.49.....	15.8	18.6	23.9	30.2	30.6
2.50 to 4.99.....	3.5	5.5	9.2	16.1	18.0
5.00 and over.....	1.0	2.1	4.8	10.5	12.6

Vulnerable agricultural banks

In recent years, a large majority of the banks that failed had earlier reported a relatively high level of delinquent loans. The ratio of nonperforming loans to total capital seems a particularly appropriate indicator of the possibility that a bank may fail because of large loan losses--depending, of course, on what proportion of the nonperforming loans cannot be collected. Table 13 shows that, through 1985, more agricultural banks had been moving into vulnerable positions as indicated by this ratio, but that such deterioration stopped in 1986.

At most agricultural banks, delinquent loans are not at levels that pose a threat of failure. At nearly three-fourths of agricultural banks, nonperforming loans were less than 25 percent of total capital on December 31, 1986. Such loans exceeded capital at only 152, or 3.2 percent, of the agricultural banks, down from around 200 banks in both March and June and only slightly above the year-earlier level of 141 banks.

Table 13

Distribution of agricultural banks by ratio of nonperforming loans
to total capital

Nonperforming loans as a percentage of total capital	Percentage distribution, December 31				
	1982	1983	1984	1985	1986
All banks.....	100.0	100.0	100.0	100.0	100.0
Under 25.....	85.6	82.2	75.3	70.2	72.4
25 to 49.....	11.2	13.0	16.3	18.7	16.5
50 to 74.....	2.2	3.0	4.6	5.6	5.4
75 to 99.....	.7	1.0	1.9	2.6	2.3
100 to 124.....	.3	.3	.9	1.1	1.1
125 to 149.....	*	.2	.3	.6	.6
150 to 174.....	*	.1	.2	.3	.3
175 to 199.....	.1	*	.1	.2	.3
200 and over**.....	.1	.2	.3	.6	1.0
Addendum					
Average ratio of nonperforming loans to total capital (percent).....	13.0	15.1	18.9	21.7	19.5

* Less than 0.05 percent.

** Includes banks with negative capital.

Agricultural bank failures

Most of the banks that failed in 1986 came from the group that earlier had reported nonperforming loans in excess of capital. The number of such "vulnerable" banks rose further in 1986, but by December the increase over a year earlier consisted mainly of nonagricultural banks (middle panel of Chart 4). Vulnerable agricultural banks accounted for only two-fifths of all vulnerable banks, compared with a peak share of three-fifths in March 1985. The agricultural-bank share of the total loans at vulnerable banks, which had peaked at 39 percent in March 1985, declined to 12 percent by December 1986. Similarly, the farm-loan share of total loans at those banks fell to 6 percent, compared with 15 percent a year earlier and a peak level of 19 percent in March 1985.

The number of agricultural bank failures in 1986 was the same as in 1985. Their relative importance dropped to less than one-half of all bank failures, compared with 58 percent in 1985, and the relative importance of farm loans among total loans at failed banks dropped to 12 percent, compared with a peak of 19 percent in 1985. These downward trends in relative importance have continued so far in 1987. Through March 9, agricultural banks accounted for 35 percent of all bank failures in 1987--the lowest proportion since the first half of 1984--and farm loans accounted for just 10 percent of total loans at all failed banks (Table 14).

Chart 4

Number of Vulnerable Banks and Bank Failures

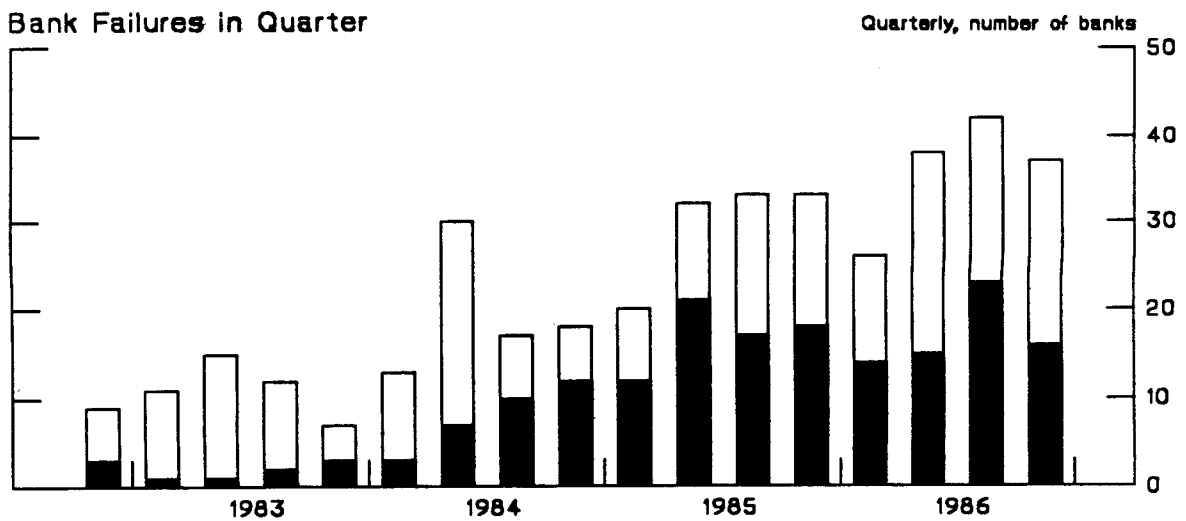
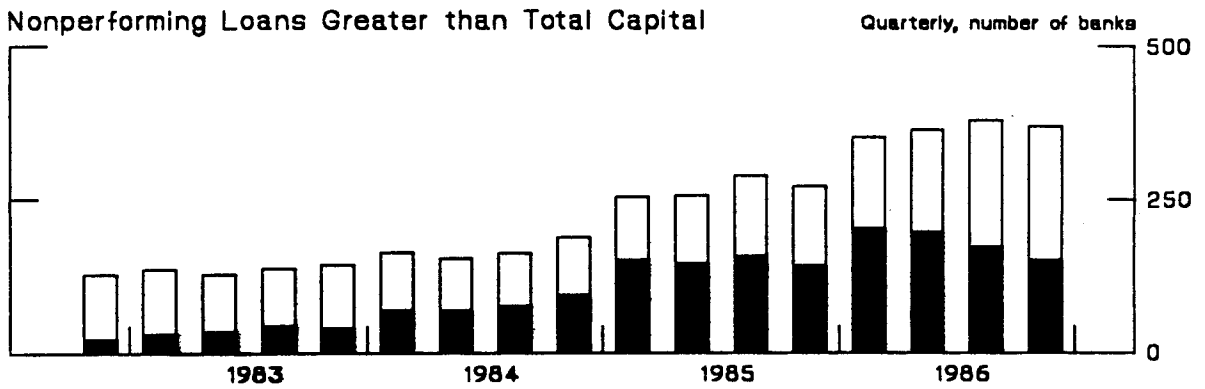
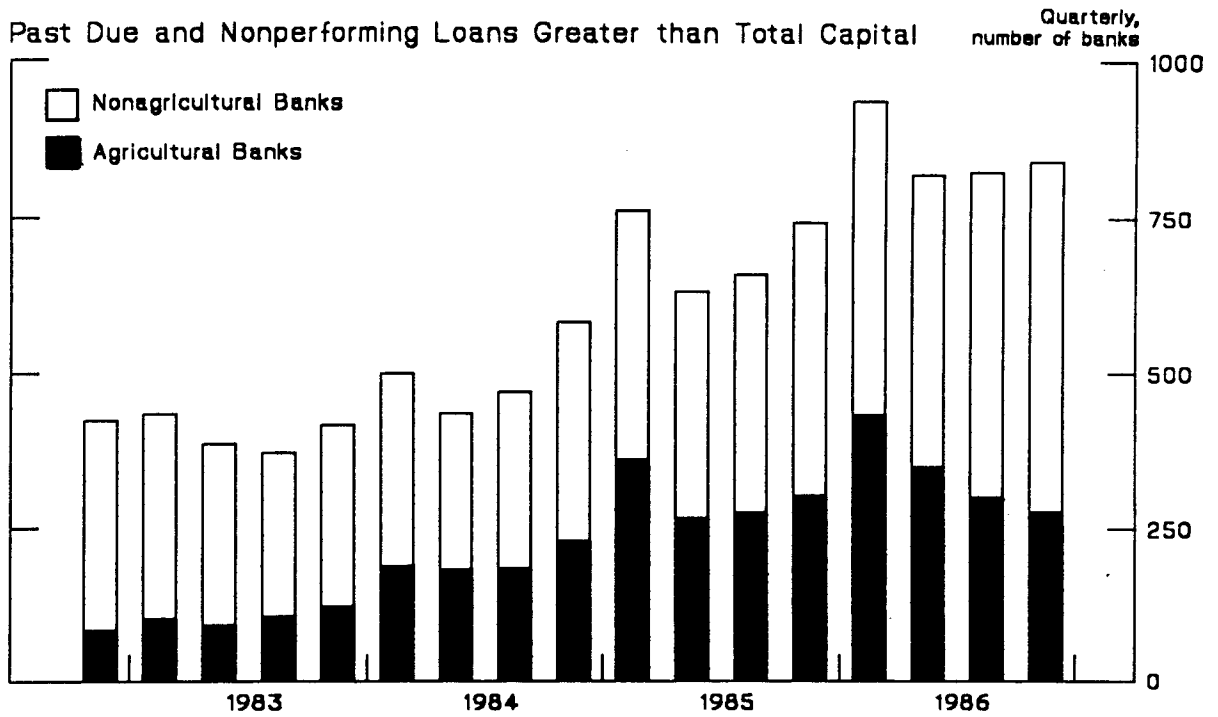


Table 14

Agricultural bank failures and farm loans at failed commercial banks

Period	Number of bank failures			Farm loans at all failed banks	
	Total	Agricultural banks	Agricultural as percentage of total	Millions of dollars	As percentage of total loans
<u>Annual</u>					
1981.....	7	1	14	3	4
1982.....	35	11	31	49	3
1983.....	45	7	16	62	2
1984.....	78	32	41	199	10
1985.....	118	68	58	459	19
1986.....	143	68	48	741	12
1987*.....	40	14	35	86	10
<u>Quarterly</u>					
1981-Q1...	3	1	33		
-Q2...	1	0	0		
-Q3...	1	0	0		
-Q4...	2	0	0		
1982-Q1...	5	2	40		
-Q2...	10	3	30		
-Q3...	11	3	27		
-Q4...	9	3	33		
1983-Q1...	11	1	9		
-Q2...	15	1	7		
-Q3...	12	2	17		
-Q4...	7	3	43		
1984-Q1...	13	3	23		
-Q2...	30	7	23		
-Q3...	17	10	59		
-Q4...	18	12	67		
1985-Q1...	20	12	60		
-Q2...	32	21	66		
-Q3...	33	17	52		
-Q4...	33	18	55		
1986-Q1...	26	14	54	84	10
-Q2...	38	15	39	162	14
-Q3...	42	23	55	318	13
-Q4...	37	16	43	178	12
1987-Q1*..	40	14	35	86	10

* Through March 9, 1987.

Data include seven banks assisted to prevent closing in 1986, and two in 1987. Industrial banks and mutual savings banks are excluded.