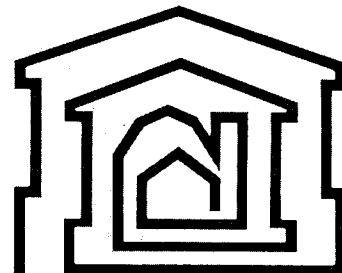


IMPROVED FUND AVAILABILITY AT RURAL BANKS



Report and Study Papers of the Committee on Rural Banking Problems

Board of Governors of the Federal Reserve System June 1975

Emanuel Melichar, Board of Governors of the Federal Reserve System

IMPACT OF BANKING STRUCTURE ON FARM LENDING: An Examination of Aggregate Data for States

The ability of the smaller rural banks to continue to finance modern agriculture effectively has recently been questioned by numerous observers of farm finance trends, including commercial bankers,¹ central bankers,² Presidential commissions,³ the Federal administration,⁴ and agricultural economists.⁵ As Brake

notes,⁶ "the rural banker faces two major problems in future farm financing. One is the increasing total credit demand. The second is the increasing amount per borrower." These trends are causing problems, according to Hopkin,⁷ because "the total demand for farm loans is increasing faster than are bank deposits in rural areas; . . . the size of loans to individual farm customers is rising faster than are the legal lending limits of country banks." These disparities led Hopkin⁸ to conclude that "in far too many instances the unit bank simply is no longer legally and financially able to do the job as it sits in the local rural community."

In considering ways in which the outlook for bank financing of agriculture might be improved, many observers think that extension of branch banking into States where it is presently prohibited or severely restricted would resolve many aspects of the problem. As Brake states,⁹ "from a purely banking standpoint,

¹ Willis W. Alexander, Jr., "Can the Country Bank Survive?", *Proceedings of the 16th National Agricultural Credit Conference* (American Bankers Association, 1967), and Thomas R. Smith, "The Country Bank Dilemma," *Proceedings of the 17th National Agricultural Credit Conference* (American Bankers Association, 1968).

² Andrew F. Brimmer, "Central Banking and the Availability of Agricultural Credit," *American Journal of Agricultural Economics* (May 1968), pp. 357-65, and Chas. N. Shepardson, "Who Will Meet the Credit Needs of Illinois Farmers Tomorrow?", remarks at the Illinois Bankers Agricultural Credit Conference, Champaign-Urbana, Ill., September 18, 1969, mimeographed.

³ U.S., President, *A New Life for the Country*. The Report of the President's Task Force on Rural Development (Washington, D.C.: Government Printing Office, March 1970), p. 26.

⁴ U.S., President, *Annual Report on Financial Assistance to Rural Areas*, Message from the President of the United States (July 26, 1971), pp. 15 and 16.

⁵ J. H. Atkinson and J. E. Kadlec, "A New Farm Finance Institution: Is It Needed?", *Agricultural Banking and Finance* (May-June 1968), pp. 10-11; Ernest T. Baughman, "The Economic Role of Financial Intermediaries—Challenges of a Changing Agriculture," *A New Look at Agricultural Finance Research*, John A. Hopkin, ed. (Champaign-Urbana, Ill.:

University of Illinois, 1970), pp. 85-92; and John R. Brake, "Can Rural Banks Meet Increased Farm Credit Demands?", *Banking, Journal of the American Bankers Association* (April 1968), pp. 80-83.

⁶ Brake, "Rural Banks . . .," p. 80.

⁷ John A. Hopkin, ed., *A New Look at Agricultural Finance Research*, (Champaign-Urbana, Ill.: University of Illinois, 1970), p. 101.

⁸ *Ibid.*, p. 111.

⁹ Brake, "Rural Banks . . .," p. 82.

Table 1

PROBLEMS OF RURAL BANKS ACCORDING TO
BANKING STRUCTURE OF STATE

Year Ending June 30, 1966

| Type of banking structure in State | Banks | | | Farm loan volume at banks | | |
|---|--------|--------------------------|--|--------------------------------|--------------------------|---|
| | Number | Percentage of U.S. total | Percentage of all banks in specified class | Total (in millions of dollars) | Percentage of U.S. total | Percentage of volume in specified class |
| Banks reporting farm financing difficulty | | | | | | |
| All States..... | 1,118 | 100.0 | 8.3 | 1,620 | 100.0 | 13.8 |
| Unit banking..... | 753 | 67.3 | 10.6 | 956 | 59.0 | 16.3 |
| Limited branching..... | 281 | 25.2 | 5.7 | 267 | 16.5 | 8.6 |
| Statewide branching..... | 84 | 7.5 | 5.7 | 397 | 24.5 | 14.5 |
| Banks reporting overline loan requests | | | | | | |
| All States..... | 1,895 | 100.0 | 14.0 | 2,047 | 100.0 | 17.5 |
| Unit banking..... | 1,464 | 77.3 | 20.6 | 1,494 | 73.0 | 25.5 |
| Limited branching..... | 319 | 16.8 | 6.4 | 270 | 13.2 | 8.7 |
| Statewide branching..... | 112 | 5.9 | 7.6 | 283 | 13.8 | 10.3 |

branch banking probably could provide the funds needed for increased total farm credit and meet the increased line of credit per borrower." This assumes, of course, that the branch system that would replace several rural unit banks would be large enough to make big farm loans and if necessary to obtain nonrural funds either in the money market or through deposit growth at urban branches. Hopkin¹⁰ notes that a branch bank has "almost unlimited flexibility in transferring funds throughout the entire branch system." But for this capability to result in an actual increased flow of funds to agricultural areas, "the branching system must be spread over a reasonably varied economic area," and "the bank's leadership must have a commitment to agriculture." Brake¹¹ agrees that "an important *if* here is whether bank management wants to serve the agricultural sector."

An inquiry into the efficacy of branch banking in farm finance must therefore be concerned with two separate questions. First, does branch banking resolve or minimize the problems—overline loan requests and over-all insufficiency of funds—that *bankers* face? Second, how does branch banking affect the problem—obtaining

adequate financing—that *farmers* face? This paper presents aggregate data from States relevant to each of these two interrelated questions.

Throughout this paper, States are classified into three categories on the basis of their banking structure prevailing in 1970, as published in the March 1970 issue of the Federal Reserve *Bulletin*. There are 15 States in the *unit-banking* group, with about 7,000 banks; 16 States in the *limited branching* group, with about 5,000 banks; and 17 States in the *statewide branching* group, with about 1,500 banks. The analysis excluded Alaska and Hawaii, for which some agricultural data were not available for all years covered. A list of the States comprising each group is shown in Table 6 on page 108.

IMPACT ON BANKING PROBLEMS

RELATIVE INCIDENCE OF BANKING PROBLEMS

The 1966 farm loan survey conducted by the Federal Reserve System casts some light on the efficacy of branch banking in avoiding the

¹⁰ Hopkin, *A New Look at Agricultural Finance Research*, p. 101.

¹¹ Brake, "Rural Banks . . .," p. 82.

Table 2

OVERLINE FARM LOAN REQUESTS RECEIVED BY BANKS
ACCORDING TO BANKING STRUCTURE OF STATE
Year Ending June 30, 1966

| Type of banking structure in State | Overline requests | | Percentage of U.S. total | | Overlines as percentage of farm loans outstanding | | Average request (in thousands of dollars) |
|------------------------------------|-------------------|---------------------------------|--------------------------|--------|---|--------|---|
| | Number | Amount (in millions of dollars) | Number | Amount | Number | Amount | |
| All States..... | 11,748 | 329.6 | 100.0 | 100.0 | .34 | 2.8 | 28 |
| Unit banking..... | 9,813 | 257.4 | 83.5 | 78.1 | .55 | 4.4 | 26 |
| Limited branching..... | 1,501 | 35.6 | 12.8 | 10.8 | .13 | 1.1 | 24 |
| Statewide branching..... | 434 | 36.6 | 3.7 | 11.1 | .08 | 1.3 | 84 |

bankers' problems.¹² Bankers were asked whether, during the fiscal year ended June 30, 1966, they had experienced difficulty in obtaining funds from their own resources for meeting the financial requirements of their regular farm customers. Such difficulty in farm financing was reported by 10.6 per cent of banks in unit-banking States, compared with 5.7 per cent in States permitting statewide branching (Table 1).

Each banker was also asked to report the number and dollar amount of acceptable farm loans that his bank was unable to grant from its own resources during the previous year because the loan request exceeded his bank's legal limit on a loan to an individual. In unit-banking States, 20.6 per cent of banks had received at least one such overline farm loan request during the year, compared with 7.6 per cent of banks in States permitting statewide branching (Table 1).

Nationally, the total number of overline requests was 11,748 (Table 2). Of these, 83.5 per cent occurred in unit-banking States. As a percentage of the number of farm loans outstanding on June 30, 1966, the year's total number of overline requests equaled 0.55 per cent in unit-banking States, but only 0.08 per cent in States having statewide branching sys-

tems. In a comparison based on dollar amounts rather than on the number of loan requests, the respective percentages were 4.4 and 1.3. In unit-banking States, the average amount of an overline loan request was \$26,000, whereas in statewide branching States the average was \$84,000.

RESOLUTION OF BANKING PROBLEMS

Clearly, bankers in unit-banking States encountered more farm lending problems than those in States having statewide branching systems. But it cannot be concluded immediately that their farm credit service suffered in proportion, because more of them also resorted to mechanisms established to handle these problems. Bankers were asked whether they had worked with outside sources during the past year to obtain additional financing for their farm customers. In unit-banking States, 44.8 per cent of the bankers had done so, compared with 19.5 per cent in the statewide branching areas (Table 3). The proportion that had obtained outside funds from correspondent banks was 37.9 per cent for the former group of bankers compared with 14.1 per cent for the latter group; from insurance companies, 11.1 per cent against 5.6 per cent and from other sources, 13.6 per cent versus 7.3 per cent. Of the unit bankers, 25.9 per cent had originated farm participation loans during the year, compared with 17.4 per cent of the bankers in States permitting statewide branching.

¹² Emanuel Melichar, "Bank Financing of Agriculture," *Federal Reserve Bulletin*, Vol. 53 (June 1967), pp. 927-49.

Table 3

USE OF OUTSIDE SOURCES FOR FARM FINANCING
ACCORDING TO BANKING STRUCTURE OF STATE

Year Ending June 30, 1966, Except as Noted

| Type of banking structure in State | Banks | | | Farm loan volume at banks | | |
|--|--------|--------------------------|--|--------------------------------|--------------------------|---|
| | Number | Percentage of U.S. total | Percentage of all banks in specified class | Total (in millions of dollars) | Percentage of U.S. total | Percentage of volume in specified class |
| Banks using outside financing sources | | | | | | |
| All States..... | 4,273 | 100.0 | 31.5 | 4,931 | 100.0 | 42.1 |
| Unit banking..... | 3,186 | 74.6 | 44.8 | 3,432 | 69.6 | 58.6 |
| Limited branching..... | 800 | 18.7 | 16.1 | 823 | 16.7 | 26.4 |
| Statewide branching..... | 287 | 6.7 | 19.5 | 676 | 13.7 | 24.7 |
| Banks using funds from correspondent banks | | | | | | |
| All States..... | 3,364 | 100.0 | 24.8 | 3,826 | 100.0 | 32.7 |
| Unit banking..... | 2,696 | 80.2 | 37.9 | 2,908 | 76.0 | 49.7 |
| Limited branching..... | 461 | 13.7 | 9.3 | 459 | 12.0 | 14.7 |
| Statewide branching..... | 207 | 6.1 | 14.1 | 459 | 12.0 | 16.8 |
| Banks using funds from insurance companies | | | | | | |
| All States..... | 1,014 | 100.0 | 7.5 | 1,494 | 100.0 | 12.8 |
| Unit banking..... | 790 | 77.9 | 11.1 | 1,022 | 68.4 | 17.5 |
| Limited branching..... | 142 | 14.0 | 2.8 | 249 | 16.7 | 8.0 |
| Statewide branching..... | 82 | 8.1 | 5.6 | 223 | 14.9 | 8.1 |
| Banks using funds from other sources | | | | | | |
| All States..... | 1,416 | 100.0 | 10.4 | 1,569 | 100.0 | 13.4 |
| Unit banking..... | 963 | 68.0 | 13.6 | 928 | 59.1 | 15.8 |
| Limited branching..... | 345 | 24.4 | 6.9 | 348 | 22.2 | 11.2 |
| Statewide branching..... | 108 | 7.6 | 7.3 | 293 | 18.7 | 10.7 |
| Banks with farm participation loans they originated—June 30, 1966 | | | | | | |
| All States..... | 2,553 | 100.0 | 18.8 | 3,398 | 100.0 | 29.0 |
| Unit banking..... | 1,841 | 72.1 | 25.9 | 2,182 | 64.2 | 37.3 |
| Limited branching..... | 456 | 17.9 | 9.2 | 496 | 14.6 | 15.9 |
| Statewide branching..... | 256 | 10.0 | 17.4 | 720 | 21.2 | 26.3 |
| Banks with farm participation loans originated by others—June 30, 1966 | | | | | | |
| All States..... | 1,130 | 100.0 | 8.3 | 2,171 | 100.0 | 18.5 |
| Unit banking..... | 751 | 66.5 | 10.6 | 1,203 | 55.4 | 20.5 |
| Limited branching..... | 264 | 23.3 | 5.3 | 323 | 14.9 | 10.4 |
| Statewide branching..... | 115 | 10.2 | 7.8 | 645 | 29.7 | 23.6 |

An annual survey of agricultural banks made by the American Bankers Association (ABA) has consistently shown that a high percentage of overline farm loan requests are handled through the correspondent system. In 1968, for instance, 86 per cent of the dollar volume of excess loan applications was handled on a participation basis with correspondent banks and another 5 per cent was referred entirely to a correspondent, so that only 9 per cent was lost to nonbank lenders. In these ABA surveys from 1962 to 1968, the proportion of dollar

value of overline farm loan requests handled through the banking system has ranged from 88 to 97 per cent, and generally has been at 94 or 95 per cent.

Of the \$573 million of farm participation loans outstanding on June 30, 1966, banks in unit-banking States had originated \$429 million (Table 4). In numbers of loans, the participation loans represented 0.53 per cent of outstanding farm loans in the unit-banking States, compared with 0.24 per cent in other States. In dollar amount, the participation loans

Table 4

OUTSTANDING FARM PARTICIPATION LOANS ORIGINATED
ACCORDING TO BANKING STRUCTURE OF STATE, June 30, 1966

| Type of banking structure in State | Number | Amount (in millions of dollars) | | Percentage of U.S. total | | |
|------------------------------------|---|---------------------------------|-----------------------|--|-----------------------|-----------------------|
| | | Total | Correspondents' share | Number | Total amount | Correspondents' share |
| All States..... | 13,554 | 573.3 | 303.9 | 100.0 | 100.0 | 100.0 |
| Unit banking..... | 9,435 | 429.2 | 228.9 | 69.6 | 74.9 | 75.3 |
| Limited branching..... | 2,774 | 64.5 | 31.8 | 20.5 | 11.2 | 10.5 |
| Statewide branching..... | 1,345 | 79.6 | 43.2 | 9.9 | 13.9 | 14.2 |
| | Participation as percentage of farm loans outstanding | | | Average amount (in thousands of dollars) | | |
| | Number | Amount | | Total | Correspondents' share | |
| | | Total | Correspondents' share | | | |
| All States..... | .39 | 4.9 | 2.6 | 42 | 22 | |
| Unit banking..... | .53 | 7.3 | 3.9 | 45 | 24 | |
| Limited branching..... | .24 | 2.1 | 1.0 | 23 | 11 | |
| Statewide branching..... | .24 | 2.9 | 1.6 | 59 | 32 | |

equaled 7.3 per cent of total farm loan volume in unit-banking States, compared with 2.9 per cent in States permitting statewide branching. The relative importance of participation loans thus paralleled the relative incidence of overline requests.

The picture that emerges from these survey data is that banks in unit-banking States more often encounter certain problems in farm financing for which they tend to compensate by making greater use of certain outside sources of funds. Banks in States that permit branching encounter fewer of these specific problems. But as previously noted, some observers believe that branch systems may have a tendency, perhaps unintentional, to neglect farm lending. Perhaps some indication of the net impact of these offsetting influences can be obtained by comparing aggregate farm finance data for unit and branch-banking States, which is the subject of the next section.

IMPACT ON FARM CREDIT

In this section, various analytical farm debt ratios are examined to see whether they differ significantly among the three groupings of States

by type of banking structure. Most of these ratios vary considerably from State to State. Therefore, even if the States were to be classified into three groupings on a random basis, some differences among the average ratios for the three random groupings would be expected merely on the basis of chance. Thus the analyses reported herein were carried out in a manner that permitted statistical tests of whether differences found among banking-structure groupings were large enough to make it unlikely that they were the result of chance. The results of these tests are reported in the tables, along with the data to which they apply.

To permit these tests of statistical significance, each comparison began with the individual ratios of each of the 48 States examined, rather than with ratios calculated by first summing data for all States in a group and then dividing to obtain the group's ratio. Then a weighted analysis was performed, with the data for each State receiving an importance equal to the State's relative contribution to national cash receipts from farm marketings.

PROPORTION OF FARM CREDIT SUPPLIED BY BANKS

The proportion of total farm debt held by banks in 1970 was higher in the group of unit-

Table 5

TRENDS IN PROPORTION OF FARM DEBT OWED TO BANKS
ACCORDING TO BANKING STRUCTURE OF STATE

| Type of debt | Banking structure | | | | | |
|---|------------------------------|-------------------|---------------------|-------------------------------------|-------------------|---------------------|
| | Unit banking | Limited branching | Statewide branching | Unit banking | Limited branching | Statewide branching |
| | Ratio of bank to total, 1970 | | | Ratio of bank to total, 1960 | | |
| Total..... | .37 | .33 | .26*** | .36 | .33 | .31* |
| Real estate..... | .12 | .24*** | .09 | .09 | .21*** | .12 |
| Non-real-estate: | | | | | | |
| All institutional..... | .70 | .52*** | .65 | .74 | .62*** | .71 |
| Banks and production credit associations..... | .74 | .56*** | .69 | .80 | .67*** | .77 |
| | Change in ratio, 1960-70 | | | Percentage change in ratio, 1960-70 | | |
| Total..... | .03 | .03 | -.05*** | 1 | 1 | -13*** |
| Real estate..... | .03 | .03 | -.03*** | 33 | 20 | -15*** |
| Non-real-estate: | | | | | | |
| All institutional..... | -.05 | -.09* | -.06 | -7 | -15** | -11 |
| Banks and production credit associations..... | -.06 | -.11** | -.08 | -8 | -16*** | -12 |
| | Change in ratio, 1965-70 | | | Percentage change in ratio, 1965-70 | | |
| Total..... | .01 | -.01** | -.04*** | 2 | -3** | -12*** |
| Real estate..... | .02 | .01 | -.03*** | 12 | 5 | -19*** |
| Non-real-estate: | | | | | | |
| All institutional..... | -.03 | -.06* | -.05 | -5 | -10** | -8 |
| Banks and production credit associations..... | -.05 | -.07 | -.06 | -6 | -11** | -9 |

NOTE.—Asterisks in the "limited branching" and "statewide branching" columns indicate that the statistic is significantly different from the statistic in the "unit banking" column with level of confidence as follows: *10 per cent; ** 5 per cent; and *** 1 per cent.

Data on farm debt are as of Jan. 1 of the year specified. Data on non-real-estate loans are amounts reported by principal lending institutions (all operating banks, Farmers Home Administration, production credit associations, and Federal intermediate credit banks), excluding loans guaranteed by the Commodity Credit Corporation. Source: USDA, *Agricultural Finance Review*, vol. 31 Supplement (Dec. 1970), Table 15, pp. 21-22; vol. 26 (Sept. 1965), Table 4, pp. 68-69; vol. 22 (Sept. 1960), Table 17, pp. 142-43, and Tables 20 and 21, pp. 147-48. Loans at institutions in the District of Columbia are included in data for Maryland.

Data on total farm mortgage debt are estimated totals held by all lenders, including individuals. Source: USDA, *Agricultural Finance Review*, vol. 31 Supplement (Dec. 1970), Table 4, pp. 5-6; vol. 26 (Sept. 1965), Table 1, pp. 62-66; vol. 22 (Sept. 1960), Tables 4 and 5, pp. 124-27.

Data on farm real estate values are the estimated total value of farm land and buildings as of Mar. 1 of the year specified. Source: USDA, *Farm Real Estate Market Developments*, CD-76 (Aug. 1971), Table 15, pp. 25-26; CD-70 (Apr. 1968), Table 26, pp. 44-45.

Data referred to as "gross farm income" are "cash receipts from farm marketings" only. Data referred to as "net farm income" are "total net farm income." Both are for the year preceding the year specified. Source: USDA, *Farm Income, State Estimates, 1949-70, A Supplement to the July 1971 Farm Income Situation*, FIS 218, Supplement (Aug. 1971), Table 6, pp. 12-36.

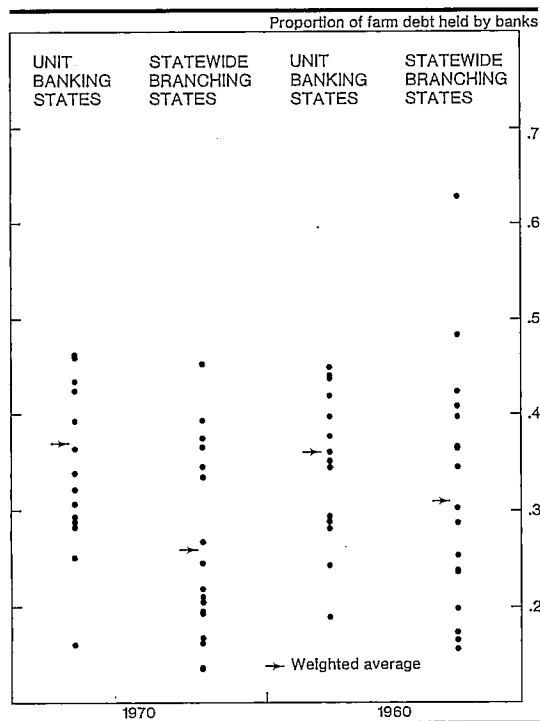
banking States (0.37) than in either the States permitting limited branching (0.33) or the States with statewide branching (0.26) (Table 5). In the first two groups, the ratio in 1970 was about the same as it had been in 1960, while in the statewide branching States it had declined from 0.31 to 0.26.

Chart 1 illustrates how the proportion of farm debt owed to banks varied among unit-banking and statewide branching States in 1970 and 1960, and how the average difference between these two groups of States widened during that decade. Table 6 focuses on the changes in that ratio that occurred between 1965 and

1970, listing and ranking the States in descending order according to the percentage change in the proportion of farm debt owed to banks. The data in Table 6 are illustrated in Chart 2. The decline in this ratio among statewide branching States contrasts markedly with its relative stability among unit-banking States, and statistical tests confirm the visual impression that a difference of this magnitude was extremely unlikely to have arisen in random groupings of States.

During the 1960's, the proportion of farm real estate debt held by banks increased in unit-banking States, from 0.09 to 0.12 of the

Chart 1

PROPORTION OF FARM DEBT
OWED TO BANKSBy State and by banking structure,
1970 and 1960

total, and also increased somewhat in States permitting limited branching (Table 5). But in the statewide branching group, the proportion decreased from 0.12 to 0.09, with the entire change occurring in the last half of the decade.

The proportion of institutional non-real-estate debt held by banks fell in all three groups of States, but the relative decline in the ratio was greater in the groups permitting branching. Considerably more than half of the decade's decline in these ratios took place in 1965-70.

BANK CREDIT RELATIVE TO
FARM INCOME AND ASSETS

It has been shown that banks in statewide branching States are playing a smaller and de-

clining role in farm lending compared with banks in unit-banking States. But are banks in the statewide branching areas providing farmers in these States with less credit relative to the volume of farm operations and assets? To check on this aspect, analyses were performed on State ratios of bank debt to farm sales (cash receipts from farm marketings), to net income, and to assets (value of land and buildings). In general, the question was answered in the

Table 6

PERCENTAGE CHANGE IN
RATIO OF BANK FARM LOANS TO
TOTAL FARM DEBT

By State and by banking structure, 1965-70

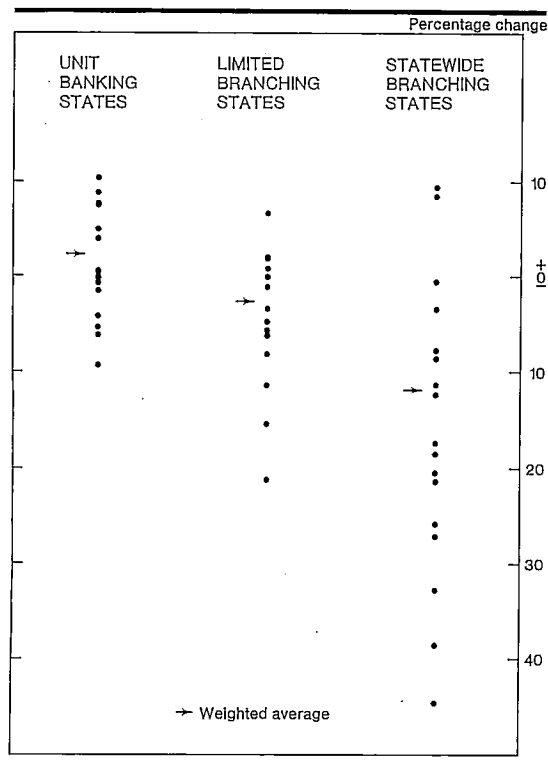
| Rank | State | Percentage change by type of banking structure | | |
|----------------------|----------------|--|-------------------|---------------------|
| | | Unit banking | Limited branching | Statewide branching |
| 1..... | West Virginia | 10.36 | ... | ... |
| 2..... | Idaho | ... | ... | 9.46 |
| 3..... | Minnesota | 8.89 | ... | ... |
| 4..... | South Dakota | ... | ... | 8.52 |
| 5..... | Missouri | 7.62 | ... | ... |
| 6..... | Illinois | 7.50 | ... | ... |
| 7..... | Indiana | ... | 6.64 | ... |
| 8..... | Iowa | 4.96 | ... | ... |
| 9..... | Texas | 3.95 | ... | ... |
| 10..... | New Mexico | ... | 2.00 | ... |
| 11..... | Alabama | ... | 1.87 | ... |
| 12..... | Ohio | ... | .72 | ... |
| 13..... | Wyoming | .49 | ... | ... |
| 14..... | North Dakota | .42 | ... | ... |
| 15..... | Wisconsin | ... | -.08 | ... |
| 16..... | Nebraska | -.13 | ... | ... |
| 17..... | Utah | ... | ... | -.63 |
| 18..... | Oklahoma | -.74 | ... | ... |
| 19..... | Mississippi | ... | -1.20 | ... |
| 20..... | Arkansas | -1.59 | ... | ... |
| 21..... | Georgia | ... | -3.41 | ... |
| 22..... | Arizona | ... | ... | -3.47 |
| 23..... | Kansas | -4.21 | ... | ... |
| 24..... | New York | ... | -4.88 | ... |
| 25..... | Florida | -5.38 | ... | ... |
| 26..... | Pennsylvania | ... | -5.78 | ... |
| 27..... | Kentucky | ... | -5.95 | ... |
| 28..... | Montana | -6.11 | ... | ... |
| 29..... | Tennessee | ... | -6.27 | ... |
| 30..... | Washington | ... | ... | -7.82 |
| 31..... | Michigan | ... | -8.22 | ... |
| 32..... | Oregon | ... | ... | -8.69 |
| 33..... | Colorado | -9.34 | ... | ... |
| 34..... | South Carolina | ... | ... | -11.34 |
| 35..... | Louisiana | ... | -11.44 | ... |
| 36..... | North Carolina | ... | ... | -12.33 |
| 37..... | Massachusetts | ... | -15.39 | ... |
| 38..... | New Hampshire | ... | -15.70 | ... |
| 39..... | California | ... | ... | -17.33 |
| 40..... | Virginia | ... | ... | -18.43 |
| 41..... | Nevada | ... | ... | -20.50 |
| 42..... | New Jersey | ... | -21.19 | ... |
| 43..... | Maryland | ... | ... | -21.40 |
| 44..... | Vermont | ... | ... | -25.72 |
| 45..... | Maine | ... | ... | -27.01 |
| 46..... | Delaware | ... | ... | -32.80 |
| 47..... | Connecticut | ... | ... | -38.58 |
| 48..... | Rhode Island | ... | ... | -44.67 |
| Average ¹ | | 2.29 | - 2.69 | -11.89 |

¹ With States weighted by their volume of cash receipts from farm marketings in 1969.

Chart 2

PERCENTAGE CHANGE IN
RATIO OF BANK FARM LOANS TO
TOTAL FARM DEBT

By State and by banking structure, 1965-70



affirmative. (See Table 7 on page 110.) The relative volume of bank debt, especially non-real-estate debt, indeed tended to be less in both the limited and statewide branching States than in the unit-banking States. Also, relative bank debt increased at a slower pace during the 1960's, particularly in the statewide branching areas.

TOTAL CREDIT RELATIVE TO
FARM INCOME AND ASSETS

The preceding results lead naturally to yet another query: Is *total* farm debt relative to sales, income, and assets lower in States permitting branching, and have such ratios been increasing at a slower rate in these States? After analyses of these ratios, the general answer is

no. (See Table 8 on page 111.) Farmers in branching States have relatively more real estate debt and less non-real-estate debt outstanding than do farmers in unit-banking States. These differences largely offset each other, so that relative total debt is about the same in all three groups of States. However, since banks are primarily providers of non-real-estate credit, the relatively greater reliance on real estate credit in the branching States may in itself be of interest. Particularly in view of the preceding findings, it is possible to suspect a causal relationship between the lesser role of bank credit and the greater role of real estate credit in these States.

SUMMARY

As is commonly thought, banks in unit-banking States were found to have encountered relatively more problems in financing of farmers than did banks in branching States. However, they were also found to have made relatively more use of mechanisms designed to cope with such problems. Furthermore, examination of aggregate data for States reveals no deleterious effect of these difficulties on the volume of bank credit provided to farmers. On the contrary, as compared with the statewide branching group of States, farmers in the unit-banking group obtain a greater proportion of their credit from banks and also obtain more bank credit relative to their income and assets. However, there is no difference between these groups of States in the total amount of credit used by farmers relative to their income and assets, which shows that other lenders make up for the lesser farm credit role of banks in the statewide branching group. Problems of farm financing in unit-banking States may possibly have other undesirable impacts, such as on the progress of individual farmers, but the aggregate volume of credit provided to agriculture does not appear to be adversely affected.

June 1972

Table 7

TRENDS IN RELATIVE BANK DEBT OF FARMERS
ACCORDING TO BANKING STRUCTURE OF STATE

| Type of bank debt ratio | Banking structure | | | | | |
|-------------------------------|--------------------------|-------------------|---------------------|-------------------------------------|-------------------|---------------------|
| | Unit banking | Limited branching | Statewide branching | Unit banking | Limited branching | Statewide branching |
| | Ratio, 1970 | | | Ratio, 1960 | | |
| Total bank debt to: | | | | | | |
| Sales..... | .33 | .30 | .24*** | .21 | .19 | .17* |
| Income..... | 1.02 | .79** | .81* | .68 | .54* | .57 |
| Assets..... | .076 | .079 | .060* | .052 | .056 | .045 |
| Bank real estate debt to: | | | | | | |
| Income..... | .20 | .39*** | .17 | .09 | .23*** | .14 |
| Assets..... | .014 | .040*** | .014 | .008 | .024*** | .013 |
| Bank non-real-estate debt to: | | | | | | |
| Sales..... | .27 | .15*** | .19*** | .18 | .11*** | .13*** |
| Income..... | .82 | .40*** | .64* | .59 | .31*** | .43* |
| | Change in ratio, 1960-70 | | | Percentage change in ratio, 1960-70 | | |
| Total bank debt to: | | | | | | |
| Sales..... | .13 | .11 | .07*** | 67 | 64 | 42** |
| Income..... | .32 | .26 | .24 | 62 | 59 | 49 |
| Assets..... | .023 | .023 | .015* | 47 | 40 | 37 |
| Bank real estate debt to: | | | | | | |
| Income | .10 | .16* | .04* | 117 | 83 | 37*** |
| Assets..... | .006 | .015** | .001* | 92 | 63 | 33*** |
| Bank non-real-estate debt to: | | | | | | |
| Sales..... | .09 | .05*** | .06** | 56 | 46 | 45 |
| Income..... | .22 | .10* | .20 | 52 | 43 | 54 |
| | Change in ratio, 1965-70 | | | Percentage change in ratio, 1965-70 | | |
| Total bank debt to: | | | | | | |
| Sales..... | .04 | .06* | .00*** | 15 | 26** | 3** |
| Income..... | .02 | .08 | -.03 | 6 | 15 | 5 |
| Assets..... | .012 | .010 | .004** | 18 | 15 | 9** |
| Bank real estate debt to: | | | | | | |
| Income..... | .03 | .07 | -.02* | 12 | 24 | -9** |
| Assets..... | .003 | .008** | -.001* | 25 | 24 | -3*** |
| Bank non-real-estate debt to: | | | | | | |
| Sales..... | .03 | .02 | .01** | 12 | 18 | 8 |
| Income..... | -.01 | .01 | ... | 3 | 11 | 8 |

NOTE.—Asterisks indicate degree of statistical significance, as defined in note to Table 5.

Table 8

TRENDS IN RELATIVE DEBT OF FARMERS
ACCORDING TO BANKING STRUCTURE OF STATE

| Type of debt ratio | Banking structure | | | | | |
|--------------------------|--------------------------|-------------------|---------------------|-------------------------------------|-------------------|---------------------|
| | Unit banking | Limited branching | Statewide branching | Unit banking | Limited branching | Statewide branching |
| | Ratio, 1970 | | | Ratio, 1960 | | |
| Total debt to: | | | | | | |
| Sales..... | .93 | .91 | .92 | .57 | .56 | .56 |
| Income..... | 2.81 | 2.43 | 3.13 | 1.84 | 1.61 | 1.82 |
| Assets..... | .21 | .23 | .23 | .14 | .17** | .15 |
| Real estate debt to: | | | | | | |
| Income..... | 1.65 | 1.67 | 2.20** | 1.08 | 1.13 | 1.23 |
| Assets..... | .12 | .16*** | .15*** | .09 | .12*** | .10 |
| Non-real-estate debt to: | | | | | | |
| Sales..... | .38 | .29*** | .28*** | .23 | .17*** | .17*** |
| Income..... | 1.16 | .76*** | .93* | .76 | .48*** | .59* |
| | Change in ratio, 1960-70 | | | Percentage change in ratio, 1960-70 | | |
| Total debt to: | | | | | | |
| Sales..... | .36 | .35 | .36 | 65 | 63 | 65 |
| Income..... | .95 | .83 | 1.30 | 61 | 59 | 80 |
| Assets..... | .06 | .07 | .08 | 46 | 40 | 58 |
| Real estate debt to: | | | | | | |
| Income..... | .56 | .55 | .97* | 61 | 55 | 85 |
| Assets..... | .04 | .04 | .05* | 45 | 37 | 59 |
| Non-real-estate debt to: | | | | | | |
| Sales..... | .15 | .12 | .11** | 68 | 73 | 63 |
| Income..... | .40 | .28 | .33 | 62 | 70 | 71 |
| | Change in ratio, 1965-70 | | | Percentage change in ratio, 1965-70 | | |
| Total debt to: | | | | | | |
| Sales..... | .10 | .20*** | .12 | 13 | 30*** | 18 |
| Income..... | .01 | .31 | .24 | 4 | 19 | 22* |
| Assets..... | .03 | .04 | .04* | 16 | 18 | 24* |
| Real estate debt to: | | | | | | |
| Income..... | -.03 | .21 | .21 | 1 | 19* | 22** |
| Assets..... | .01 | .02* | .03** | 12 | 17 | 23** |
| Non-real-estate debt to: | | | | | | |
| Sales..... | .05 | .07 | .03* | 18 | 32*** | 19 |
| Income..... | .05 | .10 | .03 | 8 | 21 | 22 |

NOTE.—Asterisks indicate degree of statistical significance, as defined in note to Table 5.