Volume Title: Federal Lending and Loan Insurance

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Volume Publisher: Princeton University Press

Volume ISBN: 0-870-14152-X

Volume URL: http://www.nber.org/books/saul58-1

Publication Date: 1958

Chapter Title: Agricultural Credit Programs

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Chapter URL: http://www.nber.org/chapters/c2574

Chapter pages in book: (p. 149 - 233)

PART II

CHAPTER 6

Agricultural Credit Programs

FEDERAL credit services to agriculture are more complete than those made available to any other sector of the economy. Mortgage loans and short-term production credit are provided through two separate systems of cooperatively organized district banks and local lending associations. A third set of quasi-public district banks extends credit to private cooperative associations marketing farm products or purchasing farm supplies. These wide-reaching enterprises of federally sponsored agencies will be described, in the order given, as to organization, services provided, and lending experience; and where possible, their experience will be put in comparison with that of private lending institutions in the same markets. Next the more specialized programs of direct agencies of the federal government, usually reaching markets not served by private lenders, will be reviewed. Finally, we try to assess the economic impact of federal lending to agriculture.

The Land Bank System

ORGANIZATION

Shortly before 1916 three states, Minnesota, North Dakota, and South Dakota, set up government banks for making farm loans. In the federal sphere, going back a considerable distance, the credit sales of public lands in the early nineteenth century might be regarded as the start of farm credit activities. No advance of funds was involved therein, however. It was the establishment of the federal land bank system in 1916, or rather the first loans made by the land banks, in 1917, that marked the beginning of systematic participation of the federal government in cash lending activities.[1]

Proposals for a system of banks that would specialize in providing long-term farm mortgage credit had been studied for a number of years prior to 1917. Several commissions were organized to explore alternative approaches to its solution. Among these were two groups, one appointed by President Wilson in 1913, which made careful studies of the governmental and cooperative land bank systems of

[1] An extensive account of federal intervention in the farm and urban real estate credit markets is given by Miles L. Colean in *The Impact of Government on Real Estate Finance in the United States* (National Bureau of Economic Research, Financial Research Program, 1950).

Europe, with the object of borrowing from their experience such ideas concerning organization and operating policies as might be useful in the United States.[2]

Support was expressed in some quarters at that time for a system of privately organized and financed land banks and in others for a cooperative land bank system with government sponsorship and financial aid. As a result, the Federal Farm Loan Act of 1916 (39 Stat. 362; 12 U.S.C. 641-1012) created two types of banks: the joint stock land banks, which were privately incorporated and financed, and the federal land banks, whose original capital was supplied in the main by the federal government and which were made subject to close government direction and supervision.

The joint stock land banks had a relatively short and not altogether distinguished history. Eighty-eight of them were chartered, all by 1931; but widespread defaults on their loans and the difficulties that they experienced in raising funds in the private capital markets led to their being, in effect, placed in liquidation under the terms of Section 29 of the Emergency Farm Mortgage Act of 1933 (48 Stat. 46; 12 U.S.C. 810). This act prohibited the joint stock land banks from issuing additional tax-exempt bonds or from making additional loans except to refinance outstanding accounts or in connection with the sale of owned real estate. The liquidation of the remaining three banks was completed in 1951. The banks were financed in the main by the sale of tax-exempt securities, but since none of these were ever owned by the United States government, and because the government permitted the banks autonomy in their management and operation, we shall not regard them as federal credit agencies, either direct or sponsored.

The federal land banks, on the other hand, obviously fall within the scope of our study. They were organized almost exclusively with government capital, and provision was made for their direct supervision by the Federal Farm Loan Board, a direct agency of the federal government. Besides providing virtually all of the $9 million of original capital of the twelve banks ($750,000 per bank), the government subscribed an additional $125 million of capital under an amendment to the Federal Farm Loan Act, approved January 23, 1932 (47 Stat. 12; 12 U.S.C. 698), and approximately $189

2 The development of the federal land bank system and other government credit agencies is described in *Financial Statements of Certain Government Agencies*, S. Doc. 172, Part I, 76th Cong., 3rd sess., 1940.

million under the Emergency Farm Mortgage Act of 1933. The latter amount, a subscription to paid-in surplus, was advanced to enable the land banks to make extensions and deferments of defaulted farm loans.

The retirement of government capital from the land banks was envisaged in a plan requiring the borrowing members of the local national farm loan associations, which were organized under the 1916 act, to buy stock in their respective associations in an amount equal to 5 percent of the mortgage loan for which they were applying, and requiring the associations, in turn, to buy an equal amount of stock in the land banks of their respective districts. It was further required that when association-subscribed capital reached $750,000 in an individual district bank, not less than 25 percent of any additional capital funds obtained in that way must be used to retire government capital at par. By the end of March 1934 all of the original government capital of the banks had been retired; and the subscriptions of $125 million to capital and $189 million to paid-in surplus which were made by the government during the depression years of the early thirties were retired by June 30, 1947. It should be noted, however, that at that time the latter amounts were set up in the Treasury as a revolving fund, with the understanding that they would be made available to the banks in case of need. Public Laws 146 and 759 returned the money in the revolving fund to the Treasury, the transfers being made in 1949 and 1951.

The essentially governmental character of the land banks is established by the fact that the federal government has from the beginning had a decisive hand in the selection of their officers and has exercised close supervision over their operations. Under the Farm Loan Act of 1916, over-all administration was provided for by the Federal Farm Loan Board, an agency of the Treasury with the Secretary of the Treasury, ex officio, as its chairman and with the remaining four members—later six—appointed by the President. District farm credit boards of seven members each were also formed, and the Federal Farm Loan Board was given an important part in their selection. The district boards, in turn, were given responsibility for directing the affairs of the land banks, and later of other federal farm credit agencies as these were created.

In the 1933 reorganization of federal farm credit activities the functions of the Federal Farm Loan Board were transferred to the Farm Credit Administration, which held an independent status until

1939, when it was made part of the Department of Agriculture. The independence of the land bank system was re-established by the Farm Credit Act of 1953, under which the Farm Credit Administration again became an independent agency in the executive department of the government. The 1953 act also established a thirteen-member Federal Farm Credit Board to direct the Farm Credit Administration, which continues to supervise and coordinate the activities of the land banks and of other federally sponsored agricultural credit institutions. Further, it required that such institutions if supplied with government capital pay franchise taxes.

The Emergency Farm Mortgage Act of 1933 and the Federal Farm Mortgage Corporation Act of 1934 set up arrangements by which land bank facilities were used in an emergency farm mortgage lending program utilizing funds provided by direct agencies of the federal government—first, by the Reconstruction Finance Corporation, then by the Federal Farm Mortgage Corporation, specially created to alleviate the farm mortgage distress of that time. The resulting Land Bank Commissioner loans, as they were called, will be referred to occasionally in this section and dealt with more fully later, when the programs of direct federal agencies are reviewed.

SERVICES

The role and significance of the federal land bank system has varied considerably from year to year. From 1917 to 1932 the land banks served only a relatively small proportion of the total farm mortgage market (Table 22). Their peak lending of $224 million in 1922 was not quite 9 percent of all farm mortgage loans recorded in that year. Their functions were expanded in 1933 and 1934, however, as part of a federal program designed to make additional credit available to farmers. Under the Emergency Farm Mortgage Act of 1933, the land banks were permitted to make direct loans to farmers in areas where national farm loan associations had not been organized or where existing associations were unable to accept additional applications. In addition, $200 million was made available to the Land Bank Commissioner for emergency loans to farmers, a program expanded in 1934 with the establishment of the Federal Farm Mortgage Corporation, with funds from which Commissioner loans were to be made. As a result mainly of these efforts to facilitate the refinancing of farmers' debts, the land banks from their regular funds supplied 40 percent of all farm mortgage credit extended in

TABLE 22

Farm Mortgage Loans Made by Federal Land Banks, Land Bank Commissioner, Farmers Home Administration and Joint Stock Land Banks and Estimated Amount of Farm Mortgages Recorded by Other Lenders, 1910–1953
(in millions)

	LOANS MADE[a]			LOANS MADE[a]	MORTGAGES RECORDED[b]			
YEAR ENDED DEC. 31	*Federal Land Banks*	*Federal Farm Mtg. Corp.*[c]	*Farmers Home Administration*[d]	*Joint Stock Land Banks*[e]	*Individuals*[f]	*Banks & Trust Companies*[g]	*Insurance Companies*[h]	TOTAL ALL LENDERS
1910	..	..	..	..	$ 936.8	$207.7	$105.4	$1,249.9
1911	..	..	..	..	970.9	234.6	121.3	1,326.8
1912	..	..	..	..	977.5	252.1	143.7	1,373.3
1913	..	..	..	..	1,038.1	252.5	110.5	1,401.1
1914	..	..	..	..	1,006.7	270.4	120.4	1,397.5
1915	..	..	..	..	989.7	313.7	184.3	1,487.7
1916	..	..	..	..	1,147.5	454.7	235.1	1,837.3
1917	$ 39.1	..	..	$ 1.9	1,301.3	404.2	259.7	2,006.2
1918	118.1	..	..	6.6	1,348.7	316.8	161.5	1,951.7
1919	145.0	..	..	53.0	1,991.2	540.5	214.1	2,943.8
1920	67.0	..	..	19.3	2,489.5	663.2	386.8	3,625.8
1921	91.0	..	..	9.3	1,531.0	654.5	292.8	2,578.7
1922	224.3	..	..	138.7	1,224.0	578.1	340.9	2,506.0
1923	190.3	..	..	189.7	1,115.7	546.5	451.6	2,493.7
1924	162.5	..	..	74.6	1,014.1	475.7	346.1	2,073.0
1925	124.8	..	..	131.4	1,100.3	476.0	347.6	2,180.2
1926	129.0	..	..	123.0	1,012.6	433.4	335.1	2,033.1
1927	138.4	..	..	83.7	905.6	397.3	250.6	1,775.6
1928	100.6	..	..	40.6	902.2	398.2	223.2	1,664.8
1929	63.0	..	..	18.2	834.6	343.5	203.4	1,462.7

(Continued on next page)

TABLE 22 (*continued*)

(*in millions*)

YEAR ENDED DEC. 31	LOANS MADE[a]			LOANS MADE[a]	MORTGAGES RECORDED[b]			TOTAL ALL LENDERS
	Federal Land Banks	*Federal Farm Mtg. Corp.*[c]	*Farmers Home Administration*[d]	*Joint Stock Land Banks*[e]	*Individuals*[f]	*Banks & Trust Companies*[g]	*Insurance Companies*[h]	
1930	47.1	..	..	5.2	783.4	355.2	173.7	1,364.6
1931	41.8	..	..	5.4	697.6	327.6	127.5	1,199.9
1932	27.5	..	..	2.2	535.5	263.3	74.8	903.3
1933	151.6	$ 70.8	..	0.7	386.7	167.1	46.0	823.0
1934	730.1	553.0	..	..	353.2	130.6	53.4	1,820.4
1935	247.6	195.9	..	..	363.7	176.5	78.0	1,061.7
1936	108.6	76.9	..	..	315.7	186.1	115.1	802.4
1937	62.8	39.7	..	..	314.2	212.8	128.2	757.7
1938	51.2	29.2	$10.2	..	285.3	209.9	137.4	723.2
1939	51.5	27.2	26.3	..	268.2	217.8	138.0	729.0
1940	63.9	36.4	39.1	..	267.7	219.8	145.6	772.5
1941	64.7	37.3	59.6	..	290.6	221.3	160.5	834.0
1942	53.6	28.2	34.9	..	300.5	191.0	154.6	762.8
1943	61.2	30.1	31.9	..	392.4	233.1	167.1	915.8
1944	69.4	34.5	36.4	..	414.6	255.3	160.8	971.0
1945	91.9	28.7	16.6	..	459.3	312.8	145.1	1,054.4
1946	128.6	14.6	47.3	..	573.8	521.9	200.0	1,486.2
1947	137.3	10.3	26.1	..	548.4	487.1	230.9	1,440.1
1948	148.6	i	18.8	..	564.1	436.4	259.1	1,427.0
1949	180.6	i	15.1	..	539.4	396.5	276.9	1,408.5
1950	203.1	i	42.8	..	590.3	471.6	348.0	1,655.9
1951	211.4	0.1	45.3	..	673.5	458.4	381.6	1,770.2
1952	251.6	i	47.7	..	649.0	483.7	345.6	1,777.6
1953	286.1	i	30.5	..	658.5	484.0	394.5	1,853.6

(*continued on next page*)

TABLE 22 (*continued*)

From *Farm Mortgage Loans Made and Farm Mortgages Recorded by Principal Lenders* (Farm Credit Administration, Economic and Credit Analysis Division), June 1954, p. 4. U.S. possessions not included.

[a] Refers to regular mortgage loans only exclusive of purchase-money mortgages and sales contracts. Data for the joint stock land banks for 1917–1920 were partially estimated by the Bureau of Agricultural Economics.

[b] Estimates for the years 1910 through 1933 were prepared by the Bureau of Agricultural Economics, those for 1936 to date were prepared by the Farm Credit Administration, and those for 1934 and 1935 were prepared jointly by the two agencies.

[c] The authority to make Land Bank Commissioner loans expired July 1, 1947, except for the limited purpose of refinancing loans previously made.

[d] Covers tenant purchase, farm enlargement, farm development, and project liquidation farm ownership loans, and similar loans made from state corporation trust funds. Figures represent amounts obligated, except that for project liquidation loans they refer to the amount advanced. Data for 1944 include all project liquidation loans made from inception of program through December 31, 1944. Data for 1950–1953 include farm housing loans made from beginning of program in November 1949.

[e] Placed in liquidation May 12, 1933. Loans made after that date are included with mortgages recorded by individuals.

[f] Refers to individual lenders, administrators, executors, and guardians; mortgage and investment companies; savings and loan associations; state and local governmental agencies; production credit associations, religious, educational, civic, and fraternal organizations; and any other lender not specifically mentioned.

[g] Covers both commercial and savings banks. The period 1911–1935 includes all such banks whether open or closed. From 1936 to date, receivers or conservators of banks are included with "individuals."

[h] Data for the years 1910–1935 exclude mortgages recorded in the New England states, which were too few to classify separately and are included with the recordings shown for "other" lenders. Data for the years 1936 to date, however, include recordings in the New England states. Recordings are mainly those of life companies, but they also include those of any other types of insurance companies.

[i] Less than $50,000.

1934; and with inclusion of the Commissioner loans made from specially provided funds, 60 percent of all farm mortgage credit extended during 1934–1935 was loaned by or arranged through the land bank system (Table 22). The refinancing program tapered off in 1936, and from 1937 through 1953 (the Commissioner program was discontinued on July 1, 1947) only about 12 percent of the total volume of farm mortgages recorded was made through the land banks.

In 1945 the land banks were authorized to lend up to 65 percent of the normal agricultural value of farm property. The allowable percentage represented a liberalization; but the new method of valuation—based on anticipated farm performance assuming average yields and assuming price conditions as in a period like 1909–1914, which was not markedly either deflationary or inflationary—proved restrictive in the period of rising land values that ensued. It required the land banks to appraise farms more conservatively than most other lenders. Thus the banks in recent years have had a surplus of loanable funds, and in some farm credit districts have been restricted to dealing only with relatively well-established farmers.

The proportion of total farm mortgage debt held by the federal land banks has varied widely as a result of the changing role of their loan program (Table 23). Before 1933 they accounted for relatively small proportions, ranging from 3.5 percent in 1920 to 13.5 percent in 1932. By the end of 1936, however, they held more than $2.1 billion, or 30 percent of the $7.2 billion farm mortgage debt; their holdings together with the Land Bank Commissioner loans held by the Federal Farm Mortgage Corporation comprised more than 40 percent of the total. The proportion held by the land banks remained close to 30 percent through 1943, then declined continuously until the end of 1953, when of the $7.7 billion outstanding the federal land banks held only 15.3 percent, Commissioner loans outstanding having meanwhile declined to minute percentages of the total after 1947 as new loans ceased to be made.

Land bank loans have usually been written with maturities of from twenty to thirty-three years, on an amortized basis. The Federal Farm Loan Act originally provided for terms varying from five to forty years, the loans to be fully amortized. An amendment to the act adopted in 1920 provided that the borrower or mortgagor, upon any regular installment date, might make any number of advance payments on a portion of the loan or pay the entire principal of the

TABLE 23

Farm Mortgage Holdings of the Principal Public and Private Lenders, 1909–1953
(in thousands)

End of Year	Total[a]	Federal Land Banks	Federal Farm Mortgage Corporation[b]	Farmers Home Administration[c]	Joint Stock Land Banks[d]	Individuals & Miscellaneous	Banks & Trust Companies[e]	Life Insurance Companies
1909	$ 3,207,863	..	..	..	..	$2,414,654	$ 406,248	$ 386,961
1910	3,522,121	..	..	..	..	2,621,099	477,568	423,454
1911	3,929,758	..	..	..	..	2,869,805	580,300	479,653
1912	4,347,679	..	..	..	..	3,123,769	673,752	550,158
1913	4,707,358	..	..	..	..	3,386,109	723,787	597,462
1914	4,990,785	..	..	..	..	3,574,690	746,111	669,984
1915	5,256,425	..	..	..	..	3,714,585	776,269	765,571
1916	5,825,851	..	..	..	..	4,030,717	933,990	861,144
1917	6,536,860	$ 39,112	..	..	$ 1,888	4,531,777	1,008,492	955,591
1918	7,137,365	156,214	..	..	8,384	4,924,364	1,030,240	1,018,163
1919	8,448,772	293,595	..	..	60,038	5,915,930	1,204,383	974,826
1920	10,221,126	349,679	..	..	77,959	7,140,227	1,447,483	1,205,778
1921	10,702,257	432,523	..	..	85,017	7,212,345	1,540,005	1,432,367
1922	10,785,621	639,486	..	..	218,775	6,864,690	1,506,467	1,556,203
1923	10,664,919	797,785	..	..	392,639	6,294,244	1,388,106	1,792,145
1924	9,912,650	923,077	..	..	446,429	5,400,064	1,200,456	1,942,624
1925	9,713,213	998,552	..	..	545,559	4,960,341	1,178,460	2,030,301
1926	9,658,422	1,068,642	..	..	632,476	4,690,045	1,143,595	2,123,664
1927	9,756,957	1,144,984	..	..	669,798	4,672,227	1,097,085	2,172,863
1928	9,756,559	1,182,813	..	..	656,516	4,731,626	1,046,624	2,138,980
1929	9,630,768	1,201,732	..	..	637,789	4,675,340	997,468	2,118,439

(continued on next page)

TABLE 23 *(continued)*

(Farm mortgage holdings, in thousands)

End of Year	*Total*[a]	*Federal Land Banks*	*Federal Farm Mortgage Corporation*[b]	*Farmers Home Administration*[c]	*Joint Stock Land Banks*[d]	*Individuals & Miscellaneous*	*Banks & Trust Companies*[e]	*Life Insurance Companies*
1930	$ 9,398,088	$1,197,063	..	..	$605,858	$4,561,244	$ 946,876	$2,087,047
1931	9,093,983	1,180,992	..	..	552,180	4,384,062	940,135	2,036,614
1932	8,466,418	1,147,014	..	..	474,954	4,057,049	889,083	1,898,318
1933	7,685,203	1,257,825	$ 70,738	..	412,346	3,535,644	710,863	1,697,787
1934	7,584,459	1,947,442	616,737	..	277,020	2,942,856	498,842	1,301,562
1935	7,422,701	2,113,502	794,147	..	200,617	2,714,641	487,505	1,112,289
1936	7,153,963	2,147,768	841,251	..	162,786	2,499,009	487,534	1,015,615
1937	6,954,884	2,126,610	824,151	..	133,554	2,380,562	501,450	988,557
1938	6,779,318	2,088,478	774,377	$10,218	114,992	2,289,038	519,276	982,939
1939	6,586,399	2,009,820	713,290	31,927	91,726	2,221,176	534,170	984,290
1940	6,493,527	1,957,184	685,149	65,294	73,455	2,152,558	543,408	1,016,479
1941	6,376,080	1,880,784	634,885	114,533	55,919	2,091,581	535,212	1,063,166
1942	5,956,458	1,718,240	543,895	157,463	37,015	1,980,230	476,676	1,042,939
1943	5,395,671	1,452,886	429,751	171,763	10,097	1,896,080	448,433	986,661
1944	4,940,915	1,209,676	347,307	193,377	5,455	1,797,243	449,582	938,275
1945	4,760,464	1,078,952	239,365	181,861	3,208	1,858,517	507,298	891,263
1946	4,896,970	976,748	146,621	189,300	1,641	2,010,766	683,229	888,665
1947	5,064,245	888,933	107,066	195,069	645	2,072,170	840,647	959,715
1948	5,288,331	868,156	77,920	188,893	462	2,215,674	900,843	1,036,383
1949	5,579,278	906,077	58,650	188,855	270	2,315,956	937,144	1,172,326
1950	6,071,345	947,431	44,008	214,047	0	2,501,734	1,008,359	1,355,766
1951	6,588,270	994,128	32,778	233,374	0	2,740,026	1,046,923	1,541,041
1952	7,154,038	1,071,358	23,899	257,936	0	2,980,585	1,105,096	1,715,164
1953	7,656,186	1,169,418	17,628	268,060	0	3,177,223	1,131,214	1,892,643

(continued on next page)

TABLE 23 (*continued*)

From *Agricultural Statistics 1952* (Department of Agriculture), Table 727, p. 721, and *Agricultural Finance Review* (Agricultural Research Service), Vol. 17, November 1954, Table 1, p. 83. U.S. possessions not included.

[a] Data for federal land banks, Federal Farm Mortgage Corporation, joint stock land banks and life insurance companies in 1929–1953 include regular mortgages, purchase-money mortgages, and sales contracts; before 1929, regular mortgages only. Federal land banks and FFMC mortgages in process of foreclosure were estimated for 1950 and 1951.

[b] Loans held by the Federal Farm Mortgage Corporation were made on its behalf by the Land Bank Commissioner. Authority to make new loans expired July 1, 1947.

[c] Before 1941, covers tenant purchase loans only. Beginning with 1941, also includes farm development (special real estate) loans; beginning with 1943, farm enlargement loans; beginning with 1944, project liquidation loans; and beginning with 1950, farm housing loans. Loans made for these purposes from state corporation trust funds are also included. Loans insured by Farmers Home Administration are not included.

[d] Liquidation of the joint stock land banks began May 12, 1933, and was completed April 26, 1951. Data for banks in receivership are also included.

[e] Data for 1934–1946 refer to insured commercial banks; before 1934, to open state and national banks and from 1947 to date, to all operating commercial and savings banks.

loan. As a result of the increase in delinquencies in the early 1930's the act was further amended to provide adjustment or deferments in the repayment schedule. Authority was given to the bank directors, with approval of the Farm Credit Administration, to extend the unpaid balances and to accept as payments installments sufficient to extinguish the debt within an agreed period of not more than forty years.

The importance of these deferment and extension provisions can scarcely be overestimated. On the average, more than one out of every four land bank loans outstanding over the period 1931 to 1940 had been delinquent or extended. The delinquency rate (i.e. the number of loans delinquent or extended during the year as a percentage of the number of loans outstanding at year end) more than doubled between 1931 and 1932, rising from about 23 percent in 1931 to nearly 50 percent at the end of 1932. It stayed close to the peak through 1933, dropped quickly to 27 percent at the end of 1935, and remained above 20 percent through 1940.[3] Although the number of loans delinquent or extended declined sharply during the forties, in recent years it has been around 4 or 5 percent of the total number of loans outstanding. On January 1, 1954, for example, 4.9

[3] Donald C. Horton, Harald C. Larsen, and Norman J. Wall, *Farm-Mortgage Credit Facilities in the United States* (Department of Agriculture, Misc. Pub. 478, 1942), Table 32, p. 100.

percent of the number of land bank loans outstanding had extensions or delinquent installments.[4]

The interest rates charged on land bank loans have been relatively low—4 percent in 1954 in all districts except Springfield, Baltimore, and Columbia, which compares with an average for all farm mortgage lenders of 4.7 percent. In contrast to the rates of most private lenders, they have not varied with loan size. Rates of 4½ percent were authorized by Congress from July 11, 1933 to June 30, 1935 (a reduction from the pre-depression rate) and of 3½ percent from July 1, 1935 to June 30, 1944.[5] Rates were at 4 percent in all districts from 1944 to 1954 except at the Federal Land Banks of Springfield and of Baltimore, which increased interest rates to 4½ percent as of January 1, 1949 and October 1, 1951, respectively. The Federal Land Bank of Columbia increased the interest rate to 4½ percent on August 1, 1948 and to 5 percent on July 1, 1951. In comparison, the average interest rate on all farm mortgage loans reached a high of 6.4 percent on January 1, 1923, dropping to 6.0 percent in 1929 and to 4.4 percent in 1942. From this point the average rate increased to 4.6 percent in 1946 and to 4.7 percent by January 1, 1953.[6] Thus land bank loans, on the average, have carried an interest rate about 0.5 percent to 1.5 percent lower—depending on the year—than the average for all farm mortgage lenders.

Land bank interest rates have been relatively lower in the western and southern parts of the United States than in the central and eastern sections of the country. Between 1933 and 1944, while the reduced rates were in effect, the average farm mortgage interest rate in the North Central states declined from about 5.7 percent on January 1, 1933 to about 4.2 percent in 1944, whereas in the South Atlantic region the average went from 6.3 percent to 4.6 percent and in the Rocky Mountain region from 6.7 percent to 4.5 percent.[7] During the period 1944 to 1953 while the land bank rate was 4 percent (with the exceptions noted above), the average rate on all farm mortgage loans was about 4.3 percent in the North Central states, but about 5.0 percent in the South Atlantic and East South

[4] *Agricultural Finance Review* (Department of Agriculture, Agricultural Research Service), Vol. 17, November 1954, p. 88.

[5] From *Annual Reports* of the Farm Credit Administration.

[6] *Agricultural Statistics, 1952* (Department of Agriculture), Table 720, p. 715, and *Agricultural Statistics, 1953*, Table 728, p. 629.

[7] *Ibid.*

Central states and about 4.7 percent in the Mountain and Pacific Coast areas.

The percentage of the total farm mortgage debt held by federal land banks has varied to some extent from one region of the country to another, as is indicated in Table 24; but more striking are the regional variations for other lenders. At the beginning of 1954 the Farmers Home Administration held 13 percent of the total farm mortgage debt in the New Orleans district, for example, but only 1.2 percent in the Berkeley district. Private lenders also vary in

TABLE 24

Distribution of Farm Mortgage Debt as of January 1, 1954 among the Principal Public and Private Lenders by Farm Credit District

Farm Credit District[a]	*Federal Land Banks*	*Federal Farm Mtg. Corp.*	*Farmers Home Adm.*	*Life Insurance Cos.*	*All Operating Banks*	*Others*[b]
Springfield	13.4%	0.3%	1.9%	6.8%	21.5%	56.1%
Baltimore	8.9	0.1	3.4	7.2	32.0	48.4
Columbia	13.6	0.3	8.0	16.4	15.6	46.1
Louisville	10.0	0.1	2.6	23.2	27.6	36.5
New Orleans	19.2	0.2	12.9	19.5	15.1	33.1
St. Louis	15.8	0.2	4.1	38.4	14.5	27.0
St. Paul	16.8	0.5	2.3	14.0	17.4	49.0
Omaha	22.6	0.2	2.0	42.3	8.2	24.7
Wichita	15.2	0.1	4.0	36.3	6.4	38.0
Houston	21.6	0.3	3.4	42.2	5.5	27.0
Berkeley	9.7	0.2	1.2	15.9	12.1	60.9
Spokane	15.3	0.2	3.3	20.2	5.9	55.1
United States	15.3	0.2	3.5	24.7	14.8	41.5

Compiled from *Agricultural Finance Review* (Agricultural Research Service), Vol. 17, November 1954, Table 3, p. 84. Bank loans are classified according to location of bank and are not strictly comparable with the data for other lenders, where the classification is by location of mortgaged farms.

[a] States included in the farm credit districts are as follows: *Springfield*—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey; *Baltimore*—Pennsylvania, Maryland, District of Columbia, Delaware, Virginia, West Virginia; *Columbia*—North and South Carolina, Georgia, Florida; *Louisville*—Indiana, Ohio, Kentucky, Tennessee; *New Orleans*—Alabama, Mississippi, Louisiana; *St. Louis*—Illinois, Missouri, Arkansas; *St. Paul*—Michigan, Wisconsin, Minnesota, North Dakota; *Omaha*—Iowa, Nebraska, South Dakota, Wyoming; *Wichita*—Kansas, Oklahoma, Colorado, New Mexico; *Houston*—Texas; *Berkeley*—Utah, Arizona, Nevada, California; *Spokane*—Montana, Idaho, Washington, Oregon.

[b] Refers to individuals and miscellaneous institutions.

importance regionally; indeed, the variability was greater at the end of 1953 for banks and insurance companies than for the land banks. Worthy of special note, perhaps, is the fact that insurance company lending has tended to be concentrated in the general region of the Corn Belt and the southwestern wheat, cattle, and cotton areas—in the Omaha, St. Louis, Wichita, and Houston farm credit districts.

The land banks have made their facilities available to all farmers who could fulfill their equity requirements, but the basis on which they are directed by law to appraise farm properties—that is, the limitation of land bank loans (since 1945) to 65 percent of the normal agricultural value of the farm—has restricted their lending to a considerably smaller percentage of the market value of the farm than for other lenders.[8] As a result, land bank loans have averaged considerably smaller than those of insurance companies, although larger than those of banks and of individuals and others. According to estimates of the Farm Credit Administration, the average size of mortgage loans made during 1942–1947 was as follows: land banks, $4,100; Land Bank Commissioner, $1,400; insurance companies, $7,200; banks, $3,000; individuals and miscellaneous, $3,100.[9]

Further information on the distribution of the farm mortgage credit market among land banks and other major lenders shows that commercial banks have their largest shares of total outstandings in counties where (1) farms are of moderate size; (2) land is a relatively unimportant component of total assets; (3) dairy and miscellaneous products are more important than crops and livestock in total farm output; and (4) home consumption of farm products and earnings from off-farm work are relatively high.[10] Insurance companies, on the other hand, tend to hold their greatest shares of outstanding farm mortgage debt in counties where (1) farms are large; (2) land is a relatively important component of total assets, and the bulk of the acreage is in cropland; (3) crop and livestock sales are high compared with sales of dairy and miscellaneous products; and (4)

[8] Cf. John I. Smith, "Federal Land Bank Dilemma," *Farm Policy Forum*, Vol. 3, No. 3, March 1950, pp. 9–14.

[9] See *Farm-Mortgage Loans and Their Distribution by Lender Groups, 1940–48*, by Harold T. Lingard (Department of Agriculture, Circular 812, August 1949), pp. 28f.

[10] Donald C. Horton, *Patterns of Farm Financial Structure* (Princeton University Press for the National Bureau of Economic Research, 1957), pp. 120f.

home consumption of farm products and earnings from off-farm work are relatively low.

Land banks hold a somewhat higher share of the farm mortgage debt in counties where the operator interest in farms is low (which tend also to rank low in frequency of mortgage use) than elsewhere. Insurance companies show the same pattern, more markedly. No evidence is discernible, however, that either they or the land banks tend to concentrate their lending in areas of either high or low ratios of debt to equity.

Whereas private lending agencies tend to show some degree of specialization—regional, or otherwise—in their lending, the federal land banks are almost equally active in all areas of the market. As was seen in Table 24, their relative importance as holders of long-term farm loans does not vary as greatly by regions as that of banks or insurance companies. The share of total farm mortgage debt held by land banks appears to have varied but little as between areas differing in size of farm, in frequency of mortgage use, and in the intensity of mortgage credit use as measured by ratios of debt to equity.

EXPERIENCE

Federal land bank experience (apart from Commissioner loans) illustrates long-term lending to farmers who in most cases would have been able to obtain financing from private sources. Thus it affords, over a long span of activity, opportunities for comparison with the experience of private institutions lending in the same market. Three periods should be distinguished in federal land bank experience: (1) the pre-depression years, extending from the establishment of the system in 1917 to 1929; (2) the depression and recovery period from 1930 to 1940; and (3) the war and postwar period, running from 1941 to 1954.

During the 1920's the land banks encountered no serious trouble: delinquencies averaged about 5 percent of the total number of loans outstanding, acquisitions of farms were relatively infrequent, and the losses on properties sold were small. To the end of 1929 only about 2.8 percent of all loans made went to foreclosure, and at the end of 1929 land bank farm holdings amounted to not quite 2.5 percent of their total farm mortgage investment. About half the acquired farms had been sold by the end of 1929, and 88 percent of the investment in them had been recovered. The total loss on loan and real estate transactions, plus net charge-offs against farms still held, came to about 3 percent of the total amount of loans extinguished during the period, equivalent to an annual charge of about 0.13 percent on loans outstanding.

Life insurance companies, on the other hand, ran into somewhat more trouble during the twenties. They had acquired a sizable amount of farm mortgage loans by the end of World War I, often at relatively inflated values. Fifteen large life insurance companies, for example, doubled their farm mortgage investment from 1920 to 1929. Although until 1926 they made few foreclosures, by the time their peak investment was reached in 1929 their total farm property holdings (including farms owned, farms sold but with title retained, and farms on which foreclosure was pending) amounted to 7.6 percent of their total farm mortgage investment.[11] However, the life insurance companies recovered a larger percentage of their investment in acquired properties than did the land banks. In 1928 about 7 percent, and in 1929 about 5 percent, of the farms owned by thirteen life insurance companies were sold, with average recoveries of 94.4 percent and 96.0 percent, respectively.[12]

After 1929, farm mortgage delinquencies for all public and private lenders became much more general. Whereas only about 5.5 percent of the land bank mortgages outstanding at the end of 1929 had been delinquent at some time during that year, by the beginning of 1933 almost half the mortgages were delinquent or had been extended.[13] Delinquencies remained at a relatively high level for some years, and were particularly numerous in the Columbia and New Orleans credit districts and in the St. Paul district, covering the major northwest spring wheat area.[14]

11 Data from *Résumé of Farm Loan Experience, 1928–1937*, Farm Mortgage Conference of Life Insurance Companies, December 1939. The insurance companies composing the Farm Mortgage Conference held 71 percent of the farm mortgage and land investment of life insurance companies at the end of 1928 and 70 percent at the beginning of 1937.

12 The relatively low recovery ratio of the land banks (88 percent) may be due to the fact that in this period they sold a higher proportion of the foreclosed properties that they held than did the life insurance companies.

13 Before 1932, any federal land bank loan with matured interest or principal unpaid was considered delinquent, but after 1932 land banks had the privilege of extending such loans. To assure comparability, delinquency after 1932 is defined to include both delinquent loans on which no extensions had been granted and loans that had been extended, even though the latter were not still delinquent.

14 See Horton, Larsen, and Wall, *op.cit.*, Table 32, p. 100.

By 1932 delinquencies among farm mortgages of ten of the leading life insurance companies were about as extensive as among those of the land banks (Table 25). On the other hand, in the years after 1933 life insurance company delinquencies declined more rapidly, in

TABLE 25

Delinquency Status of Farm Mortgage Loans Held by 10 Life Insurance Companies at Year Ends, 1932–1937

Status of Mortgage	*1932*[a]	*1933*	*1934*	*1935*	*1936*	*1937*
Nondelinquent	55%	55%	63%	72%	79%	85%
Delinquent						
More than 90 days	29	32	24	18	12	9
Less than 90 days	9	6	4	2	2	2
In foreclosure						
Not subject to redemption	7	7	5	4	4	2
Subject to redemption			4	4	3	2
Total	100	100	100	100	100	100

From *Resume of Farm Loan Experience, 1928–37* (Farm Mortgage Conference of Life Insurance Companies, December 1939), p. 20.
[a] Refers to March 31, 1933, the date when delinquency figures were first collected.

part because the land banks refinanced around $260 million of the $1.5 billion of farm mortgage loans held by the fifteen companies at the end of 1929, and in part because about $572 million of the principal amount of the mortgages held by the companies had passed into their real estate accounts between 1928 and 1937 through foreclosure.

Although it was the policy of most farm mortgage lenders—especially the land banks and the insurance companies—to exhaust other means of settlement before resorting to foreclosure, lenders' acquisitions of farm real estate increased rapidly after 1930. During the eleven years from 1930 to 1940 the land banks acquired an average of 9,300 farms *per year*, as compared with a total of about 14,000 farms acquired through 1929.[15] In 1936, alone, 14,652 farms were acquired.[16] Foreclosures by life insurance companies were also

[15] *Annual Reports* of the Federal Farm Loan Board, 1929–1932, and of the Farm Credit Administration, 1934–1940.
[16] *Annual Report*, Farm Credit Administration, 1938, p. 21.

frequent. Of the mortgages held by fifteen life insurance companies at the beginning of 1928, and which were not in foreclosure then, more than one-third, comprising 41 percent of the amount held, had been foreclosed by 1937 or were in the process of being foreclosed.[17]

Foreclosure data for commercial banks and other lenders are not as complete, but show their acquisitions of farms to have been less extensive than those of the land banks and insurance companies. At the end of 1937, insured commercial banks held only $56 million of acquired farm real estate, which compares with $132 million for the federal land banks and Federal Farm Mortgage Corporation, and $612 million for the life insurance companies.[18] One of the reasons for the relatively light acquisitions by commercial banks in the 1930's was their heavy liquidation of farm mortgage loans in the twenties, somewhat before the onset of the most severe farm difficulties. In 1925–1929 the average annual number of distress transfers of farms was 6.2 percent of the number of mortgaged farms in 1925; during 1930–1934, on the other hand, distress transfers were 9.5 percent of the number of mortgaged farms in 1930.[19]

The peak of foreclosures by federal land banks came several years after the peak for other lenders, with sharp increases in 1935 and 1936, just as the foreclosures of insurance companies and most other lenders were declining (Table 26). In 1934 and the first part of

TABLE 26

Indexes of the Number of Farm Foreclosure Sales for Selected Lenders, 1934–1939
(1934–1939 average = 100)

Type of Lender	*1934*	*1935*	*1936*	*1937*	*1938*	*1939*
Federal Land Banks and Land Bank Commissioner	38.2	95.9	127.6	106.5	108.9	124.4
Individuals	148.5	123.4	106.1	86.6	74.9	59.7
Commercial banks	119.0	119.0	111.3	98.1	83.5	69.4
Insurance companies	185.7	135.9	99.8	68.7	58.6	50.8
Miscellaneous	167.8	150.8	104.5	74.6	55.4	46.9
All lenders	131.1	123.1	109.9	87.3	77.4	70.8

From *Farm-Mortgage Credit Facilities in the United States* by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), Table 11, p. 41.

17 *Résumé of Farm Loan Experience, 1928–1937*, p. 8.
18 *Agricultural Statistics, 1952*, Department of Agriculture, Table 754, p. 751.
19 Horton et al., *op.cit.*, Table 9, p. 39.

1935, the land banks and the Land Bank Commissioner were closing large numbers of refinancing loans, and foreclosures were infrequent; the 1936 rise in foreclosures reflects the accumulation of delinquencies in the immediately previous years, and the rises in 1938 and 1939 reflect the larger number of federal land bank loans then outstanding.

During the thirties there were three or four distinct areas in which farm mortgage delinquencies and foreclosures were especially heavy. The largest of these was in the northern Great Plains—the Dakotas, Montana, Wyoming, Colorado, Nebraska, and Kansas—stretching east to cover parts of Minnesota, Wisconsin, and northern Iowa. A second and considerably smaller area was in southern Iowa and northern Missouri. The third was centered in the eastern Cotton Belt, particularly in Georgia and South Carolina. As Table 27

TABLE 27

Estimated Number of Farm Foreclosure Sales, 1934–1939, per 1,000 Farms Mortgaged on January 1, 1935, by Farm Credit District

Farm Credit District[a]	*1934*	*1935*	*1936*	*1937*	*1938*	*1939*
Springfield	18.7	16.2	14.0	13.9	12.9	12.0
Baltimore	24.3	26.0	25.9	20.2	15.0	14.4
Columbia	32.9	26.6	26.1	15.7	12.8	10.9
Louisville	22.7	18.4	13.3	9.2	7.9	6.5
New Orleans	17.8	21.2	18.5	11.1	7.7	7.2
St. Louis	39.5	36.1	29.6	24.8	19.9	15.5
St. Paul	22.8	23.6	25.6	23.1	23.8	24.3
Omaha	48.7	42.5	37.0	30.1	30.4	29.8
Wichita	40.6	38.1	30.0	26.5	26.1	25.6
Houston	19.8	22.3	18.8	13.2	12.6	10.6
Berkeley	16.4	11.4	10.8	9.8	7.7	7.5
Spokane	21.2	22.8	25.3	22.1	13.2	8.2
United States	27.8	26.1	23.3	18.5	16.4	15.0

From *Farm-Mortgage Credit Facilities in the United States* by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), Table 10, p. 40.

[a] For a listing of states included in each farm credit district, see Table 24, note a.

shows, foreclosures of farms were relatively high in the St. Louis, St. Paul, Omaha, and Wichita farm credit districts, which include the first two of the mortgage distress areas. Furthermore, foreclosure rates in the Omaha and Wichita districts remained well above the national average throughout 1934–1939, whereas in the St. Paul district they reached their peak in 1936 and the trend in the St. Louis district was downward throughout the period. Foreclosures in the Columbia district were higher than the national average during 1934–1936 but declined to less than the national average in the years following.[20]

The heavier occurrence of farm mortgage distress in certain major areas naturally affected the experience of private lending agencies. The fact that farm mortgage holdings of life insurance companies were concentrated in the Corn Belt and Northern Plains meant that the companies suffered a particularly adverse effect. At the end of 1937, 65 percent of the farm mortgage and land investment of seventeen leading companies was secured by properties in Ohio, Indiana, Illinois, Minnesota, Iowa, Missouri, and Nebraska.[21] If Kansas and the Dakotas are included, the area contains 77 percent of their total investment; and the ten Cotton Belt states from North Carolina to Texas contained another 15 percent of the farm mortgage investment of these companies. This concentration in areas of especially heavy distress doubtless explains their relatively adverse experience.

On the other hand, as had been the case in the twenties, so in the thirties insurance companies appear to have recovered a larger percentage of their investment in acquired farms disposed of than did the federal land banks (Table 28). The most likely explanation of this difference is that the land banks followed a policy of disposing of properties as soon as possible after acquisition, whereas the life insurance companies held theirs for somewhat longer periods.[22]

20 For more extensive discussion of the location of areas of farm mortgage distress see *Mortgage Lending Experience in Agriculture* by Lawrence A. Jones and David Durand (Princeton University Press for the National Bureau of Economic Research, 1954), Chapter 1.

21 *Résumé of Farm Loan Experience, 1928–1937*, pp. 6–8.

22 Sixty-three percent of the total book value of farm real estate held by twenty-six large life insurance companies at the end of 1938 had been acquired before 1935. See *Operating Results and Investments of the Twenty-Six Largest Legal Reserve Life Insurance Companies in the United States, 1929–38*, a report submitted by the Securities and Exchange Commission to the Temporary National Economic Committee, Hearings before the Temporary National Economic Committee, 76th Cong., 3rd sess., February 1940, Part 10-A, p. 182.

TABLE 28

Percentage of Cost Recovered through Sales of Farm Properties by Federal Land Banks and by 13 Life Insurance Companies, 1927–1940

Year	*Federal Land Banks*[a]	*Life Insurance Companies*[b]
1927	93.1%	c
1928	87.3	94.4%
1929	84.8	96.0
1930	78.9	91.2
1931	70.2	78.3
1932	66.0	87.6
1933	84.7	91.7
1934	86.3	93.1
1935	77.9	92.5
1936	74.3	89.6
1937	76.6	88.9
1938	72.4	c
1939	69.4	c
1940	67.2	c

[a] From *Farm-Mortgage Credit Facilities in the United States* by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), Table 36, p. 106. Through 1934 the cost figure covers only unpaid loan balances at date of acquisition; from 1935 through 1940, cost also includes accrued interest to date of acquisition as well as expenses for operation and maintenance. Figures for 1927–1932 reflect net disposals of real estate, sheriff's certificates, etc. (i.e. total disposals less reacquisitions).

[b] Data from *Résumé of Farm Loan Experience, 1928–1937* (Farm Mortgage Conference of Life Insurance Companies, 1939), p. 96. In addition to capital investment at time of acquisition, cost includes maintenance, improvements, and taxes and is net of income earned from operation.

[c] Data unavailable.

Losses on real estate and mortgage loan transactions of the land banks (including, from 1935 on, allocations to reserves set aside for valuation adjustments) are presented in Table 29. When these amounts are cumulated and expressed as a percentage of cumulated year-end outstandings of mortgage loans, one obtains a measure of the charge that would have been required against outstandings to cover all losses. This would have been 0.13 percent from the beginning of the system to the end of 1929 and 0.51 percent to the end of 1940 (Table 29). The charge that it would have been necessary to make against any one year's holdings in order to cover that year's losses is, of course, a more variable figure, ranging from nearly 1.00 percent to as low as 0.40 percent.

TABLE 29

Federal Land Bank Loss Rates, 1929–1940

Year	*Cumulative Losses to End of Year as a Percentage of Cumulated Year-End Outstandings*[a]	*Annual Losses as a Percentage of Year-End Outstandings*[a]
1929	0.13%[b]	0.42%
1930	.16	.40
1931	.21	.60
1932	.27	.95
1933	.29	.52
1934	.29	.26
1935	.34	.70
1936	.38	.73
1937	.41	.76
1938	.46	.93
1939	.49	.94
1940	.51	.80

Data for losses in 1929–1935 are from *Farm-Mortgage Credit Facilities in the United States* by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), p. 106; losses in 1936–1940 and total amounts of loans outstanding are from the *Annual Reports* of the Farm Credit Administration.

[a] Losses also include: throughout, charge-offs of principal and interest on mortgage loans; from 1935 through 1937, net increases in valuation reserves maintained against farms owned outright or in process of acquirement; and from 1938 on, net increases in valuation reserves covering both loans and real estate transactions. Losses are given net of recoveries from national farm loan associations resulting from their endorsement of loans.

[b] From year of organization.

In the period 1941–1954, land bank delinquencies declined to relatively low levels; foreclosures became rare after 1943, and losses on disposals of farm real estate dwindled and disappeared (Table 30). Data gathered from a selected group of life insurance companies show somewhat similar trends. After 1943, foreclosures by the reporting companies practically ceased—only a fraction of 1 percent of the life insurance mortgages made after 1931 resulted in foreclosure—and recoveries on properties sold exceeded the total investment in them. The few farm foreclosures which occurred after World War II were largely on loans made by individuals and banks. In 1950, for example, of 1,214 farm foreclosures, 62 percent were by individuals, 27 percent by banks, 4 percent were divided about equally between the land banks and the Federal Farm Mortgage Corpora-

TABLE 30

Loan Experience of the Federal Land Banks, 1940–1954
(*dollar figures in thousands*)

YEAR[a]	DELINQUENT LOANS[b] AS A PERCENTAGE OF ALL LOANS OUTSTANDING	FARM REAL ESTATE ACQUISITIONS		FARM REAL ESTATE DISPOSALS		
		Number	*Investment*[c]	*Investment at Time of Disposal*[c]	*Proceeds of Sales*	*Proceeds as a Percentage of Investment*
1940	22.2%	6,063	$25,790	$42,083	$28,274	67.2%
1941	15.8	4,874	19,828	54,477	37,693	69.2
1942	11.0	3,480	14,330	46,000	33,119	72.0
1943[c]	9.2	950	4,259	19,359	15,506	80.1
1944	6.5	859	3,926	16,519	15,041	91.0
1945	5.3	368	1,582	8,747	8,627	98.6
1946	4.4	163	745	3,366	3,319	98.6
1947	4.0	57	199	927	916	98.9
1948	4.0	36	126	262	275	105.1
1949	4.3	16	52	87	99	113.6
1950	4.8	22	78	62	71	107.4[e]
1951	4.3	27	62	78	90	115.0[e]
1952	3.8	23	73	56	61	103.1
1953	3.8	20	42	87	94	108.3
1954	4.0	38	123	68	69	103.1

From *Annual Reports* of the Farm Credit Administration, 1940–1954.

[a] Calendar years 1940–1942; fiscal years ending June 30, 1943–1954.

[b] Covers both delinquent and extended loans.

[c] Covers unpaid loan balances, accrued interest to date of acquisition, and subsequent operation and maintenance costs.

[d] Data for delinquent loans cover the year ending June 30, 1943; data for acquisitions and disposals are for the six months ending June 30, 1943.

[e] Excludes data for disposals in the New Orleans district, where investment is carried at $1 on the land bank's statement of condition. Percentages based on the amounts shown in the two preceding columns would be 115.3 in 1950 and 114.7 in 1951.

tion, on the one hand, and life insurance companies on the other, and 7 percent were by other lenders.[23]

The quantity reflecting the experience of a lender most fully is the difference between over-all costs and revenues. In the case of public or quasi-public institutions, the calculation should include some estimate for costs of government-supplied capital that were not borne by the institution itself.

From 1917 through 1947 the federal government provided the land banks with 1,608 million "dollar-years" of interest-free capital through capital stock subscription. An additional 1,723 million dollar-years of interest-free capital in the form of paid-in surplus was provided in connection with mortgage extensions and deferments.[24] A total of about 5 million dollar-years of capital was provided through Treasury deposits during 1918–1923; and in 1934, $168 million was deposited in the land banks when they were designated as federal government depositories. Under a different type of aid, the land banks issued a total of $333 million of bonds in 1933 and 1934 on which interest was guaranteed by the federal government; but the authority to issue such bonds was discontinued in early 1934 and those issued were retired before the end of the year.

If an interest rate of 2 percent is assigned to interest-free capital, the value to the land banks of this assistance is estimated at about $67 million, which is not quite one-fifth of their cumulative net earnings—dividends to NFLA's and others of $115 million, legal reserve of $107 million, surplus reserve of $119 million, and earned surplus of $30 million—through mid-1954. In addition, as an aid to farm mortgage borrowers, the land banks received direct reimbursement from the Treasury, of $277 million, to compensate them for the interest rate reductions to borrowers which were made at the direction of Congress in the years 1933–1934. Also a certain amount of indirect aid was extended through the Federal Farm Mortgage Corporation's purchases of land bank bonds. It is difficult to determine the degree of financial benefit received from the latter source, though it doubtless reduced the cost of borrowed funds for the land banks. At any rate, it seems probable that earnings somewhat ex-

23 *Agricultural Finance Review*, Vol. 14, November 1951, p. 59.

24 "Dollar-years" of capital were calculated by adding the amounts of capital stock in the land banks held by the government at year ends over the given period. This slightly overstates that capital contribution where the government's holdings of capital stock were increased during the year and understates it where holdings were decreased during the year.

ceeded the full costs of operation over the long run, and that the regular land bank program has been self-sustaining.

The Production Credit System

ORGANIZATION

Establishment of a federally sponsored farm production credit system began shortly after World War I when, largely as a result of postwar price disturbances, the federal intermediate credit banks were created under the Agricultural Credits Act of 1923 (42 Stat. 1454; 12 U.S.C. 1021-1022). The $60 million of original capital, $5 million for each of the twelve banks, was subscribed by the federal government and is still in use by them. An additional $40 million was provided by Congress in the Federal Farm Mortgage Corporation Act of 1934 (48 Stat. 348; 12 U.S.C. 1041) as a revolving fund for subscription, when needed, to their capital or paid-in surplus. (From 1940 to 1948 no government capital was in use except the original $60 million. Intermittently after June 1948 federal subscriptions to surplus of several of the banks were made, totaling $14 million, of which $11 million was repaid by mid-1954.)

These banks were set up along lines suggested in joint congressional hearings on the postwar financial problems of agriculture. Their initial purpose was to liberalize farm production credit by making loans to commercial banks, agricultural credit corporations, livestock corporations, and other private financing agencies. Although they languished in this capacity, through developments arising in the agricultural crisis of the early thirties the intermediate credit banks later became a significant factor in the farm credit market.

The specialized wholly private agricultural credit corporations to which the federal intermediate credit banks were originally empowered to lend (as well as to commercial banks and other lenders) never developed to any great degree, and many were liquidated in the latter part of the twenties and early thirties. In 1932 the Reconstruction Finance Corporation was authorized by the Emergency Relief and Construction Act (50 Stat. 704; 12 U.S.C. 1148) to establish and finance, as direct federal agencies, regional agricultural credit corporations, one in each farm credit district, to fill what was regarded as a gap in farm credit facilities. The regional corporations were, in turn, empowered to obtain additional funds by borrowing from the federal intermediate credit banks, the RFC, and the Federal Reserve Banks. This arrangement continued until May 27, 1933, when the responsibility for supervising the regional corporations was transferred to the Farm Credit Administration by Executive Order 6084 (of March 27, 1933), and during 1933–1935 the corporations made farm production loans totaling about $450 million. But meanwhile the Farm Credit Act of 1933 made new arrangements that largely eliminated the need for the RACC's; and in the Farm Credit Act of 1937 (12 U.S.C. 1148b, 1148c, 1148d) Congress provided for their consolidation or merger. The last remaining corporation, the Regional Agricultural Credit Corporation of Washington, D.C., was dissolved by Public Law 38 approved April 6, 1949 and its functions and assets were transferred to the Secretary of Agriculture, who in turn delegated those functions to the Farmers Home Administration.

The Farm Credit Act of 1933 (48 Stat. 257; 12 U.S.C. 1131 *et seq.*) authorized the establishment of twelve production credit corporations (PCC's), one in each farm credit district, and the chartering, through these district corporations, of local production credit associations. The PCC's were provided with a fund of $120 million and empowered to act for the federal government in making subscriptions to the Class A stock of the local associations; in addition, they were given broad supervisory powers over the associations.[25] This act completed the design for the system as it operates today. About 500 local associations extend production credit to farmers, drawing part of their equity funds from the twelve production credit corporations and obtaining short-term financing from the twelve intermediate credit banks.

The federal intermediate credit banks, much like the federal land banks, obtain their lending funds primarily through the issuance and sale to the investing public of consolidated collateral trust debentures and through borrowings from commercial banks. The United States government assumes no liability for any obligations of the intermediate credit banks. Yet although they finance their lending activities otherwise than by the use of public funds, it seems appropriate to include the intermediate credit banks among federally sponsored credit agencies by reason of their being wholly govern-

[25] The Farm Credit Act of 1953 stressed the formulation of plans for the retirement of government capital in the PCC's and eventual payment of supervisory costs.

ment-owned.[26] In addition, their semipublic status is heightened by the degree of control which the federal government exercises over their policies and operations. The same district farm credit boards which direct the federal land banks direct the activities of the intermediate credit banks; of the seven members of each of the boards, two (formerly four) are appointed by the Governor of the Farm Credit Administration; the others are elected by the national farm loan associations and by the PCA's and cooperatives borrowing from the bank for cooperatives. Thus, by virtue of both the government capital which they use and their administrative relation to a direct agency of the federal government, the intermediate credit banks may be regarded as falling within the scope of our study as federally sponsored institutions. The same applies to the twelve production credit corporations.

Unlike the national farm loan associations, which function merely as intermediaries between farmer-member borrowers and the federal land banks, production credit associations were organized actually to extend credit to farmers; in turn, the associations obtain short-term credit from the federal intermediate credit bank of their district. The extent to which the PCA's are permitted to use the facilities of the intermediate credit banks depends, in the main, on the quality of the paper which they originate and the amount of their net worth; the latter, in turn, is accumulated out of earnings, out of the subscriptions to their Class A (nonvoting) capital stock by the production credit corporations and others,[27] and by the required purchase of the Class B stock by member-borrowers. In this way, their lending capacity is very definitely influenced by the availability of federal financial assistance.

Provision for the retirement of PCC-held Class A stock was made by the 1933 act, similar to that made by the 1916 act for the land banks. As of June 30, 1954, 354 of the then 498 local production credit associations were wholly member-owned; most of the remaining associations had made substantial progress in retiring corporation-owned stock, so that the PCA's as a whole were using only $3.6 million of production credit corporation capital, whereas during

26 The Farm Credit Act of 1953 requires the Federal Farm Credit Board to develop a plan for retiring all government-owned capital in the intermediate credit banks.

27 The Farm Credit Act of 1953 authorizes issuance of Class C stock for sale to PCC's and investors.

the thirties the PCC investment had amounted at its peak to $90 million.[28]

The use of government capital in all PCA's when they were originated, the continued use of federal capital by a few associations, their dependence on the federal intermediate credit banks, and their close supervision by the production credit corporations justify their inclusion within the scope of this study as federally sponsored lending agencies. They are so treated in the present chapter and elsewhere, except that in over-all measures of the volume of government activity in farm lending they have been excluded to avoid double counting. The great bulk of their paper is discounted with the federal intermediate credit banks, and it is in that account that PCA lending, as part of total federal credit activity, is registered.

SERVICES

The PCA's, operating locally, make short-term production loans to farmers at interest rates that in 1954 varied, as among different regions and individual associations, from 5 to 6¼ percent. The borrowing farmer is required to purchase Class B stock equal to at least 5 percent of his loan, in the PCA from which he borrows; and a loan servicing fee, variable with the size of the loan, is charged.

The production credit used by agriculture is of short term, extending for periods of 30 days to five years; with maturities of from six months to a year the most common. The security may be the borrower's note or may be a lien on farm machinery or livestock or against crops or other produce. Typically, farmers borrow on this basis to cover seasonal expenses, but production credit may also be used to finance certain farm operations that extend over more than one season.

It is estimated that there was about $7.0 billion of short-term farm loans, mainly for production purposes, outstanding at the end of 1953.[29] Of this amount, according to Agricultural Research

[28] *Annual Report* of the Farm Credit Administration, 1953–1954, pp. 24f. Government capital retired by the PCC's has been set aside in the Treasury in a revolving fund which may be made available to PCA's in time of need as directed by the Governor of the Farm Credit Administration. As of June 30, 1954 repayments totaled $58 million, which, together with the return of $30 million to the Treasury in 1949, as required by Public Law 860, reduced government-owned capital of the corporations to $32 million, of which only $3.6 million was invested in PCA capital stock (*ibid.*, p. 34).

[29] The figure represents total non-real-estate farm credit as given in the *Balance Sheet of Agriculture, 1954* ($9.4 billion) less loans made or guaranteed by the Commodity Credit Corporation ($673 million in direct loans outstanding, $1,727 million in privately made loans guaranteed by CCC). The loans made or

Service estimates, about $3.2 billion, or 46 percent, was held by individuals, merchants, dealers, and other miscellaneous lenders. About $2.8 billion, or 40 percent of the total, was held by commercial banks. PCA's held 8 percent and the Farmers Home Administration (a direct federal agency making loans of an emergency character) 6 percent, and a negligible fraction consisted of intermediate credit bank loans to farm lending institutions other than PCA's.

The importance of PCA's as a source of production credit varies regionally. In the Omaha farm credit district, for example, PCA's held only 9 percent of the combined holdings of PCA's and commercial banks on January 1, 1954, but in the Columbia district PCA's held 35 percent, about one-half as much as the commercial banks (Table 31).

TABLE 31

Outstandings of Commercial Bank Non-Real-Estate Farm Loans and of PCA Loans, January 1, 1954, by Farm Credit District
(dollar figures in thousands)

FARM CREDIT DISTRICT[a]	NON-REAL-ESTATE BANK LOANS	PCA LOANS	PERCENTAGE DISTRIBUTION *Banks*	PERCENTAGE DISTRIBUTION *PCA's*
Springfield	$ 127,572	$ 39,415	76%	24%
Baltimore	119,355	32,241	79	21
Columbia	87,140	46,326	65	35
Louisville	246,371	70,492	78	22
New Orleans	77,380	27,412	74	26
St. Louis	317,276	51,723	86	14
St. Paul	311,834	44,176	88	12
Omaha	411,524	42,240	91	9
Wichita	329,610	43,521	88	12
Houston	233,340	59,426	80	20
Berkeley	303,101	34,155	90	10
Spokane	137,963	50,659	73	27
United States	$2,702,466	$541,786	83%	17%

From *Agricultural Credit and Related Data 1954* (Agricultural Commission, American Bankers Association), Table 4, pp. 16 f. Bank data represent the holdings of insured commercial banks exclusive of loans guaranteed by the Commodity Credit Corporation and are classified according to location of banks; PCA data, which also exclude CCC-guaranteed loans, are classified according to the location of the borrower.

[a] For a listing of states included in each farm credit district, see Table 24, note a.

guaranteed by the CCC were for the marketing or storing of farm products under price support, and their credit terms differed from those characterizing production loans. Nearly all the CCC-guaranteed loans were held by commercial banks. See the *Balance Sheet of Agriculture, 1954* (Department of Agriculture, Agricultural Research Service), Table 19, p. 25, and *Agricultural Finance Review* (*id.*), Vol. 17, November 1954, Table 13, p. 92.

The figures below (for source, see Table 5 in Chapter 2) show that 36.9 percent of the farmers in the United States obtained non-real-estate loans from commercial banks in 1951 and 5.3 percent from PCA's. However, the relative frequency of borrowing varied widely in different parts of the country; for instance, in the Baltimore district only 16.8 percent of all farmers borrowed from banks and only 3.9 percent from PCA's; in contrast, in the Omaha district 63.8 percent used banks and 2.8 percent the PCA's.

Farm Credit District	*Percentage of Farmers Obtaining Non-Real-Estate Loans from Commercial Banks*	*Percentage of Farmers Obtaining Loans from PCA's*
Springfield	26.2%	7.6%
Baltimore	16.8	3.9
Columbia	26.5	7.5
Louisville	34.4	5.5
New Orleans	19.0	5.1
St. Louis	47.3	5.2
St. Paul	46.0	4.2
Omaha	63.8	2.8
Wichita	54.7	3.7
Houston	46.6	6.1
Berkeley	30.5	4.8
Spokane	39.8	6.4
United States	36.9%	5.3%

The shares of the farm production credit market served by banks and by public agencies have changed considerably since 1930. Until then, banks served virtually the entire market. But an expansion of the disaster loan and emergency crop and feed loan programs during 1933 and 1934, and the rapid growth of the depression-born PCA system, brought the public share of institutionally held short-term farm credit (apart from loans in connection with price support made by the Commodity Credit Corporation or made by other lenders under CCC guarantee) to 34 percent in January 1935 and to 43 percent at the beginning of 1937 (Table 32). The share of public agencies remained between 40 and 45 percent through the end of 1944, dropped to 31 percent at the end of 1947, and continued to decline through 1951, standing at 23 percent in January 1952 and 27 percent in January 1954.

The relative position of banks and PCA's in the farm production credit market has fluctuated within a narrower range. By the beginning of 1938, PCA holdings were one-fifth as large as the comparable bank holdings, and from then through 1953 this ratio remained fairly constant, ranging no lower than about one-sixth (Table 32).

In the main PCA borrowers are such as would meet the credit standards of commercial banks and other private lending institutions. This is by no means conclusively demonstrated by data on the size distribution of PCA loans, but the fact that a fairly high proportion of the total amount loaned has been advanced in individual amounts exceeding $2,000 strongly suggests that the loans have gone to well-established farm operators (Table 33). Although only 35 percent of the total number of loans paid or renewed during the year ending June 30, 1950 were in amounts of more than $2,000, such loans were estimated to account for 84 percent of the total amount loaned. The largest 5.6 percent of the loans made involved an estimated 42.5 percent of the total amount loaned, meaning that a large proportion of PCA funds went to rather large commercial farmers. In 1950 the average PCA loan was larger than the average non-real-estate loan of commercial banks (Table 34), which suggests that the farms served by PCA's are probably as large as, perhaps larger than, those obtaining their production financing from commercial banks.

The average PCA loan increased every year from 1936 through 1950, with the exception of 1949, and in 1950 was almost four times as large as it had been in 1936 (Table 35). The Department of Agriculture estimate of farm production expenses in the United States was $5,563 million in 1936 as compared with $19,704 million in 1950,[30] almost a fourfold increase. Since the total number of farms declined during this period, the average expense per farm probably increased by more than four times. Thus the increase in average size of PCA loans reflected the increase in average size of business, and the increased mechanization of agriculture.

The average cost of borrowing money from PCA's as indicated by data on the gross loan income of individual PCA's, has varied from year to year and among the various districts. During 1938–1939 and again from 1940 to 1946, when PCA interest rates were uniform at 4½ percent throughout the United States, there was a substantial reduction in loan service fees and gross loan income fell

[30] *Agricultural Outlook Charts, 1954,* Department of Agriculture, Bureau of Agricultural Economics, p. 14.

TABLE 32

Non-Real-Estate Farm Loans Outstanding at Year Ends 1928–1953 and Made during Years 1929–1952, for Specified Lenders

YEAR	ALL OPERATING BANKS[a]	PRODUCTION CREDIT ASSOCIATIONS[b]	FED. INT. CREDIT BANKS[c]	FARMERS HOME ADMINISTRATION: *Production and Subsistence Loans*[d]	FARMERS HOME ADMINISTRATION: *Production Emergency and Economic Emergency Loans*[e]	FARMERS HOME ADMINISTRATION: *Emergency Crop and Feed Loans*[f]
			Outstanding December 31 (*in thousands*)			
1928	$2,596,491	..	$43,884	..	..	$ 2,246[g]
1929	2,490,742	..	47,283	..	..	7,976[g]
1930	2,109,050	..	62,462	..	..	8,946[g]
1931	1,649,855	..	71,960	..	..	49,769
1932	1,272,211	..	79,658	..	$ 24,373	90,353
1933	913,204	$ 27	60,382	..	144,615	90,863
1934	627,878	60,459	55,083	$ 5,600[h]	87,087	111,238
1935	735,257	93,400	46,518	62,900[h]	43,394	172,470
1936	620,866	104,481	40,508	131,600[h]	25,282	164,762
1937	682,545	136,918	39,974	118,017	15,588	171,983
1938	788,716	146,825	32,612	169,148	11,080	170,952
1939	900,079	153,425	32,316	242,452	8,005	167,795
1940	983,774	170,686	32,371	286,930	5,854	167,862
1941	1,073,198	185,611	37,382	317,475	5,531	163,792
1942	924,236	182,658	37,854	367,945	3,991	155,456
1943	935,764	196,637	33,882	342,798	32,751	146,181
1944	948,829	188,306	29,792	303,050	13,618	138,068
1945	1,033,800	194,788	26,487	279,175	7,388	128,901
1946	1,289,105	230,022	31,701	282,381	3,695	116,733
1947	1,592,762	289,077	37,916	264,879	2,634	105,913
1948	1,945,598	366,822	55,750	252,512	3,073	90,048
1949	2,048,819	387,454	50,825	267,160	12,771	71,186
1950	2,524,153	450,673	62,073	259,585	22,544	53,283
1951	3,120,196	561,371	77,841	253,189	20,110	38,191
1952	3,195,058	599,295	82,931	291,375	28,739	27,919
1953	2,762,562	541,786	63,557	318,938	50,792	19,946

(*continued on next page*)

TABLE 32 (*continued*)

YEAR	ALL OPERATING BANKS[a]	PRODUCTION CREDIT ASSOCIATIONS[b]	FED. INT. CREDIT BANKS[c]	FARMERS HOME ADMINISTRATION		
				Production and Subsistence Loans[d]	*Production Emergency and Economic Emergency Loans*[e]	*Emergency Crop and Feed Loans*[f]
			Made during Year Ending December 31 (*in thousands*)			
1929	i	..	$ 90,591	..	..	$ 5,760
1930	i	..	103,906	..	..	5,340
1931	i	..	118,381	..	..	55,788
1932	i	..	148,624	..	$ 24,597	64,205
1933	i	$ 27	140,526	..	223,089	57,376
1934	i	106,812	124,429	h	140,585	70,471
1935	i	194,959	116,137	h	90,655	96,382
1936	i	226,915	105,587	h	34,667	16,135
1937	i	284,886	100,983	$158,142[k]	18,603	31,815
1938	i	301,022	88,698	80,290	5,718	19,196
1939	i	319,401	85,382	108,943	4,664	14,567
1940	i	347,145	87,314[j]	92,200	4,804	18,963
1941	i	414,815	100,697[j]	103,797	6,759	16,891
1942	i	474,009	106,881[j]	163,110	7,759	18,411
1943	i	497,178	91,790[j]	123,548	73,961	17,232
1944	i	485,750	79,266[j]	63,222	17,038	17,087
1945	i	509,579	73,039	72,450	9,913	15,085
1946	i	607,482	84,892	107,767	1,932	15,642
1947	i	747,967	107,545	93,668	77	..
1948	i	915,812	158,777	85,088	1,084	..
1949	i	946,440	154,635	98,252	10,814	..
1950	i	1,065,745	169,455	95,811	30,080	..
1951	i	1,310,034	216,394	113,329	20,820	..
1952	i	1,330,320	212,147	139,040	38,104	..

(*continued on next page*)

TABLE 32 (*continued*)

Data for PCA's and FHA are from *Agricultural Statistics 1952* (Department of Agriculture), Table 732, pp. 726f., and *Agricultural Statistics 1953*, Table 741, pp. 638f., with outstandings for 1953 from *Agricultural Finance Review* (Department of Agriculture, Agricultural Research Service), Vol. 17, November 1954, p. 92; see also notes a and c below.

[a] From *Agricultural Statistics 1952*, Table 734, p. 732, and *Agriculture Statistics 1953*, Table 743, p. 644; excludes loans made under Commodity Credit Corporation guarantee in connection with price support for farm commodities.

[b] Excludes CCC-guaranteed loans. Beginning 1946, also excludes loans held by associations in liquidation.

[c] From *Agricultural Statistics 1952*, Table 732, p. 726 (for 1928–1932 outstandings and 1929–1933 volume), and *Agricultural Finance Review*, November 1954, p. 92 (for other years). Represents loans to, and discounts for, private financing institutions extending short-term production credit to farmers. Outstanding loans under CCC guarantee (1940–1944) are excluded as pertaining to a price support rather than a credit aid program; so are outstandings and volume of loans to the banks for cooperatives, in connection with farm marketing. Loans to PCA's and regional agricultural credit corporations, whose production loans to farmers appear in the PCA and FHA series here, are excluded to avoid double counting. Loans made include renewals.

[d] Also includes rural rehabilitation, water facility, construction, and wartime adjustment loans, and such loans from state corporation trust funds except for January 1, 1938–March 31, 1942.

[e] Covers flood and windstorm restoration, flood damage, fur, and orchard loans, and (from 1949 on) production emergency loans; also regional agricultural credit corporation loans (from 1932 on). Outstandings in 1953 also include economic emergency and special livestock loans.

[f] Also includes drought relief and orchard rehabilitation loans.

[g] As of July 1.

[h] Represents amounts obligated; data for actual advances are unavailable.

[i] Data unavailable.

[j] Includes an unspecified amount of CCC-guaranteed loans.

[k] Cumulative from inception of programs.

TABLE 33

Size Distribution of PCA Loans Paid or Renewed during the Year Ending June 30, 1950

Size of Loan	*Number*	*Amount*
$500 or less	26.5%	2.3%
$501–1,000	19.2	4.3
$1,001–2,000	19.3	9.0
$2,001–5,000	21.2	22.7
$5,001–10,000	8.2	19.2
Over $10,000	5.6	42.5
Total	100.0%	100.0%

Covers 282,030, loans, totaling $955,932,000. From *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5), January 1952, p. 56.

TABLE 34

Average Size of Farm Production Loans Made by Commercial Banks and by PCA's in 1950, by Farm Credit District

Farm Credit District[a]	*Average Bank Loan*	*Average PCA Loan*
Springfield	$1,860	$2,959
Baltimore	1,549	2,712
Columbia	1,068	1,569
Louisville	1,197	2,425
New Orleans	1,088	2,173
St. Louis	1,863	3,579
St. Paul	1,586	2,930
Omaha	3,670	9,278
Wichita	3,926	7,219
Houston	2,035	6,275
Berkeley	9,136	10,266
Spokane	2,937	7,960
United States	$2,293	$3,717

From *Agricultural Credit and Related Data, 1952* (Agricultural Commission, the American Bankers Association), Table 5, pp. 18f.

[a] For a listing of states included in each farm credit district, see Table 24, note a. Bank data are classified according to location of bank; PCA data, by location of security or borrower.

from $6.34 per hundred dollars of average loan balance outstanding in 1937 to $5.30 per hundred in 1946 (Table 36). In 1947, original differences in interest rates were introduced and on January 1, 1948 individual associations were authorized to charge different rates. As a result, many PCA's raised rates and greater differences developed among districts. Between 1947 and 1950 the average gross loan income increased from $5.38 per hundred dollars of average loan balance outstanding to $6.07 per hundred, and the spread among districts widened.

Table 37 shows interest rate differences among individual PCA's in 1950. For example, 35 PCA's had gross incomes of $7.50 or more per hundred dollars of outstandings and 13 had gross loan incomes of less than $5.00 per hundred. These variations result from differences in patronage refund policy and in loan costs among individual PCA's.

EXPERIENCE

Loss experience on PCA loans has been about the same, over similar periods, as that of commercial banks. From the organization of the PCA's in 1933 through the end of 1952, net losses and provision for

TABLE 35

Average Size of PCA Loans, 1936–1950, and Median Size in Selected Years, by Farm Credit District

YEAR	FARM CREDIT DISTRICT[a] 1	2	3	4	5	6	7	8	9	10	11	12	UNITED STATES
	Average Size of Loan												
1936	$1,280	$ 824	$ 335	$ 576	$ 570	$ 546	$ 541	$1,274	$1,458	$1,808	$ 4,443	$4,081	$ 972
1937	1,338	941	404	761	698	798	698	1,505	1,871	2,654	4,533	4,587	1,166
1938	1,395	1,004	476	833	692	910	751	2,320	2,050	2,663	4,551	4,498	1,242
1939	1,412	1,081	523	915	773	1,165	796	2,819	2,468	2,891	4,750	4,859	1,368
1940	1,418	1,215	566	970	865	1,271	975	2,926	2,826	3,135	4,995	5,101	1,514
1941	1,572	1,440	652	1,141	1,008	1,553	1,211	3,431	3,265	3,284	5,633	5,566	1,803
1942	1,659	1,572	788	1,384	1,113	1,810	1,396	3,528	3,622	3,494	6,424	5,563	2,023
1943	1,838	1,637	862	1,567	1,090	1,970	1,586	4,940	3,518	3,602	7,141	5,850	2,172
1944	1,965	1,908	998	1,565	1,225	1,909	1,658	4,583	3,597	3,743	8,011	5,623	2,246
1945	2,132	2,087	1,102	1,630	1,287	2,098	1,874	5,196	3,962	3,796	8,413	5,923	2,411
1946	2,550	2,480	1,222	1,858	1,394	2,337	2,129	5,773	4,653	4,352	9,153	6,339	2,691
1947	2,813	2,691	1,337	2,158	1,520	2,649	2,416	7,099	5,390	4,787	9,776	6,703	3,016
1948	3,083	2,620	1,378	2,398	1,939	3,124	2,659	7,907	6,414	5,286	10,388	7,071	3,369
1949	2,890	2,783	1,449	2,280	1,971	3,099	2,649	7,919	6,272	6,069	9,527	7,042	3,326
1950	2,959	3,070	1,569	2,425	2,173	3,580	2,931	9,278	7,219	6,275	10,266	7,960	3,734
	Median Size of Loan[b]												
1939	678	466	243	461	226	464	518	958	602	595	1,750	1,559	442
1943	931	661	360	719	313	732	826	1,637	1,132	983	2,200	1,948	675
1946	1,293	788	455	836	388	901	1,040	1,975	1,381	1,176	3,351	2,457	828
1950	1,836	1,120	666	1,238	473	1,331	1,771	3,850	2,900	1,873	3,868	3,346	1,221

From *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5), January 1952, Table A, p. 55.

[a] For a listing of states included in each farm credit district (number 1 designating the Springfield district and following in order through number 12—Spokane), see Table 24, note a.

[b] Median size of loans repaid or renewed based on total amount advanced. Data for 1939 and 1943 are for calendar years and data for 1946 and 1950 are for fiscal years ended June 30.

TABLE 36

PCA Gross Loan Income per $100 Average Loan Balance, 1936–1950, by Farm Credit District

	FARM CREDIT DISTRICT[a]												
YEAR	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	UNITED STATES
1936	$5.60	$6.15	$7.65	$6.43	$7.26	$6.79	$6.17	$5.62	$5.93	$6.88	$5.68	$5.71	$6.30
1937	5.56	6.61	8.27	6.52	8.59	6.69	6.29	5.71	5.93	5.95	5.82	5.73	6.34
1938	5.40	6.29	7.22	6.37	7.55	6.54	6.11	5.69	6.01	5.89	5.68	5.60	6.13
1939	5.10	6.13	6.83	5.89	7.00	5.97	5.91	5.34	5.70	5.67	5.48	5.48	5.84
1940	4.88	5.82	6.50	5.60	6.54	5.77	5.61	5.06	5.35	5.36	5.27	5.18	5.56
1941	4.81	5.56	6.39	5.49	6.17	5.56	5.47	4.94	5.22	5.16	5.20	5.21	5.42
1942	4.76	5.27	6.03	5.37	5.81	5.44	5.28	4.86	5.18	5.06	5.08	4.96	5.26
1943	4.76	5.41	6.06	5.28	5.89	5.37	5.05	4.77	5.14	5.11	5.04	4.99	5.24
1944	4.73	5.38	5.89	5.26	5.77	5.34	5.07	4.76	5.14	5.23	4.99	5.04	5.24
1945	4.71	5.36	5.92	5.30	5.82	5.32	5.10	4.75	5.24	5.46	5.02	5.04	5.28
1946	4.71	5.32	5.93	5.32	5.82	5.39	5.19	4.75	5.20	5.51	5.01	4.98	5.30
1947	4.70	5.27	6.07	5.33	6.01	5.53	5.22	4.74	5.18	5.69	5.20	5.05	5.38
1948	5.07	5.52	6.55	5.53	6.28	5.86	5.56	4.64	5.31	6.15	5.26	5.40	5.64
1949	5.45	5.86	7.15	5.95	6.54	6.23	6.13	5.29	5.57	6.63	5.32	5.58	6.04
1950	5.58	5.88	7.25	5.97	6.64	6.26	6.17	5.31	5.60	6.56	5.43	5.58	6.07

From *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5), January 1952, Table 12, p. 30. Gross loan income consists of gross interest on loans (less patronage refunds) and loan service fees, including fees paid for abstracts, filing, etc.

[a] For a listing of states included in each farm credit district (number 1 designating the Springfield district and following in order through number 12—Spokane), see Table 24, note a.

TABLE 37

Distribution of PCA's in the Several Farm Credit Districts by Gross Loan Income per $100 of Average Loan Balance in 1950

FARM CREDIT DISTRICT	GROSS LOAN INCOME PER $100 AVERAGE LOAN BALANCE								TOTAL
	Less than $5.00	*$5.00–5.49*	*$5.50–5.99*	*$6.00–6.49*	*$6.50–6.99*	*$7.00–7.49*	*$7.50–7.99*	*$8.00–and over*	
Springfield	1	8	23	2	1	..	..	..	35
Baltimore	..	4	20	9	3	..	..	..	36
Columbia	..	..	1	12	26	29	12	7	87
Louisville	1	2	17	17	3	..	..	..	40
New Orleans	..	..	5	4	10	6	1	..	26
St. Louis	..	4	11	12	4	8	4	2	45
St. Paul	..	1	9	41	2	1	..	..	54
Omaha	4	11	23	2	..	..	..	..	40
Wichita	..	11	25	5	..	..	..	..	41
Houston	1	4	3	6	8	5	3	6	36
Berkeley	6	7	14	3	..	..	..	..	30
Spokane	..	9	16	3	2	..	..	..	30
United States	13	61	167	116	59	49	20	15	500

From *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5), January 1952, Table 13, p. 30. Gross loan income consist of gross interest on loans (less patronage refunds) and loan service fees, including fees paid for abstracts, filing, etc.

[a] For a listing of states included in each farm credit district, see Table 24, note a.

estimated losses have amounted to $12.8 million out of a total of $9.1 billion loaned (i.e. cash advanced excluding renewals), or approximately 0.14 percent. The rate has varied considerably from year to year. Net loans averaged about 0.50 percent of average yearly outstandings in the period 1936–1940, turned to net recoveries of about 0.13 percent in 1941–1943, and fell back to a loss rate of around 0.10 percent in the period 1944–1950. The changes in loss rates for country banks, as will be seen in Table 38, followed roughly the same pattern.

TABLE 38

Loss Rates on PCA Loans and on Loans of National Banks and of Country National Banks, 1936–1950

Year	*Total Losses of All National Banks*[a]	*Net Losses of Country National Banks*[b]	*Net Losses of PCA's*[c]
1936	1.87%	1.37%	0.68%
1937	0.82	0.48	0.28
1938	0.95	0.42	0.88
1939	0.74	0.33	0.46
1940	0.58	0.31	0.22
1941	0.44	0.16	—0.14
1942	0.42	0.05	—0.12
1943	0.43	—0.15	—0.12
1944	0.36	—0.22	0.06
1945	0.21	—0.19	0.03
1946	0.26	—0.12	0.06
1947	0.34	0.06	0.10
1948	0.21	0.10	0.11
1949	..	0.18	0.22
1950	..	0.09	0.08

From *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5), January 1952, Table 4, p. 8. *Minus sign* indicates net recoveries.

Bank data are not limited to short-term farm production loans comparable with those of PCA's but include nonfarm and long-term loans as well; and the bank series exclude losses by banks placed in receivership or trusteeship, whereas PCA data cover both inactive and active associations.

[a] Calendar-year losses (before deduction for recoveries) as percentage of December 31 outstandings.

[b] For 1936 and 1937 fiscal-year losses as percentage of June 30 outstandings; thereafter, refers to calendar-year losses and December 31 outstandings. Except for 1936 and 1937 (when banks in 14 to 21 cities with less than three banks are included) the data are restricted to national banks other than those in reserve or central reserve cities.

[c] Actual plus estimated net losses for calendar year as percentage of average of month-end balances, with the 1949 and 1950 losses of taxable PCA's adjusted for the "general provision for undetermined losses."

Loss experience among PCA's has varied widely from one farm credit district to another and among individual associations in the different districts.[31] Net loans and provisions for losses in percent of total cash advanced through 1952 varied from a high of 0.33 percent in the Springfield district to a low of 0.08 percent in the Louisville, St. Louis, and Wichita districts. In this connection it is interesting to note that several districts with relatively good records—St. Paul, Wichita, St. Louis, and Columbia—showed less favorable experience in the land bank program. Probably what this difference in federal experience with long- and with short-term farm lending signifies is that certain areas have had highly variable records, ranging from the very unfavorable, where climatic and economic conditions are adverse, to the unusually favorable, when these conditions have turned to the other extreme.

The progress made by the PCA's toward achieving the goal of member ownership has been mentioned and is worth considering here for its bearing on capital position. Progress by five-year periods is shown in the following tabulation.[32] By mid-1954, seven out of

	JUNE 30, 1944	JUNE 30, 1949 *(in millions)*	JUNE 30, 1954
Member-owned capital stock	$ 28.2	$ 62.0	$ 93.7
PCC-owned capital stock	64.0	25.0	3.6
Total accumulated earnings	30.5	54.4	90.8
Total net worth	$122.7	$141.4	$188.1
PCC-owned capital stock as a percentage of total net worth	52.2%	17.7%	1.9%

every ten PCA's were wholly member-owned, and the PCA capital stock held by the government through the PCC's—$3.6 million—was only 4 percent as large as the peak PCC investment, $90 million, during the thirties.

The use of earnings and the proceeds of sale of Class A stock to farmer-borrowers to retire government capital has prevented the PCA's, however, from adding rapidly to their capital accounts. At the end of fiscal 1954, for example, total capital stock was only

31 See *Risk Problems of Production Credit Associations* (Farm Credit Administration, Bulletin CR-5, January 1952), pp. 3–5, and the *Annual Report* of the Farm Credit Administration, 1952–1953, p. 93.

32 *Annual Report* of the Farm Credit Administration, 1953–1954, p. 25.

about 6 percent more than at the end of fiscal 1944, whereas the total amount of loans outstanding had increased nearly threefold. Most of the funds used to retire government capital were returned to a revolving fund which might be called upon to strengthen the associations' capital position in time of need; but apart from that recourse, the capital position of many PCA's was not such as to enable them independently to weather a prolonged period of adverse loan experience.

The most inclusive measure of lending experience is the relation between over-all costs and revenues. Has the production credit system been self-supporting, when full costs including those for capital supplied interest-free by the government are considered?

Through June 30, 1954 the government had furnished a total of 1.9 billion dollar-years of interest-free capital to the PCC's, and over the same period the PCA's have employed 1.0 billion dollar-years of government capital through the PCC holdings of their Class A stock.

No dividends were paid by PCA's on this government-provided capital until 1940, but a total of $475,000 was paid between that date and June 30, 1954. If the PCA's had been required to pay 2 percent interest for the use of these funds, the total interest outlay during the period would have been about $20 million, as compared with net accumulated earnings for the PCA's, as of June 30, 1954, of $90.8 million.

In addition to the capital received from the PCC's, PCA's have obtained substantial amounts of funds by borrowing from the federal intermediate credit banks; while the latter make some advances to other types of lenders, the bulk of their credit is extended to the PCA's and most of the financial assistance they have received from the federal government may, therefore, properly be considered an item of cost to the production credit system. From their establishment in 1923 to June 30, 1954 the intermediate credit banks have employed upwards of 1.8 billion dollar-years of interest-free capital from the government. At an interest rate of 2 percent this would have cost about $37 million. Against that cost, however, should be set the franchise taxes paid to the government by the banks from date of organization to 1923 through June 30, 1954, amounting to $9,216,586; and the earned surplus which the banks had accumulated as of June 30, 1954 amounted to $30.1 million and reserves for contingencies to $17.0 million. On balance, therefore, the production credit system as a whole would seem to have been more than self-sustaining through mid-1954.

Banks for Cooperatives

ORGANIZATION

A significant extension of the scope of government activity in the farm credit field occurred after the first World War when, as a means of moderating the impact of the postwar decline in farm prices the War Finance Corporation was empowered during 1921 and 1922 to make loans for the marketing of farm products and livestock. That agency was placed in liquidation in 1929; and in the same year, under the Agricultural Marketing Act (46 Stat. 11, 12 U.S.C. 1141 *et seq.*), an Agricultural Marketing Revolving Fund of $500 million was created and placed under the administration of a newly formed Federal Farm Board. The act authorized the board to extend marketing and operating loans to cooperative associations, and also loans to finance the construction or purchase of physical facilities, or to refinance debt incurred in connection with the acquisition of such facilities, with the general object of improving the marketing of farm commodities and the food products derived therefrom. Loans to stabilization corporations, essentially for the purpose of supporting the prices of basic farm commodities, were also authorized.

Loans to cooperatives under the 1929 act were never very important, however, and the functions of the board in making such loans were transferred in 1933 to newly created district banks for cooperatives. These banks were placed under the district farm credit boards, and the Central Bank for Cooperatives under a separate board, and have continued as the main instrument of governmental financial aid to agricultural marketing cooperatives.[33] Loans previously made by the Revolving Fund to cooperatives were liquidated and the program of loans for stabilization corporations was discontinued altogether.[34]

[33] Another agency affecting farm marketing credit is the Commodity Credit Corporation, which in connection with its price support program extends or guarantees credit for storage facilities and marketing of specified farm products. The amounts involved have been shown in Chapter 2 (Charts 1 and 2); but the program will not be further considered, since our focus is on programs whose primary activity is credit aid.

[34] It was in this reorganization of federal farm credit agencies, carried through under Executive Order No. 6084, dated March 27, 1933, that the Federal Farm Board was transformed into the Farm Credit Administration.

The initial capital of the twelve district banks for cooperatives and for the Central Bank for Cooperatives was provided by the Farm Credit Administration from funds made available through the Agricultural Marketing Act revolving fund,[35] and provision was made for additional subscriptions to stock by borrowing cooperatives or for payment of an equivalent amount into a guaranty fund by a cooperative not authorized to purchase stock. The banks obtain the major part of their loan funds by borrowing from, or discounting with, the federal intermediate credit banks and commercial banks, and another source of funds is the sale of collateral trust debentures issued by the Central Bank. In most cases the loans to cooperatives are made by the district banks, but loans to associations of national or broad regional scope may be, and are, made by the Central Bank for Cooperatives, in some cases with participation by the district banks. Supervision over the whole system is exercised by the Cooperative Bank Service of the Farm Credit Administration, and the district banks have as boards of directors the same district farm credit boards as direct the activities of the federal land banks, the intermediate credit banks, and the production credit corporations. Like these institutions, the banks for cooperatives are treated in this study as federally sponsored agencies.

SERVICES

Three kinds of loans are made to eligible farmer cooperatives engaged in marketing agricultural products, purchasing farm supplies, and furnishing farm business services: (1) facility loans for constructing or acquiring buildings, equipment, or other goods to facilitate the storing, handling, or marketing of farm commodities and food products; (2) short-term operating loans on inventories, receivables, payrolls, and supplies; and (3) commodity loans to facilitate the marketing of farm commodities and the buying of farm supplies. Facility loans may be made for the construction of storage facilities for commodities assigned to the Commodity Credit Corporation.

Facility loans are secured by first mortgages and have been limited to 60 percent of the value of the property and to a twenty-year term. Usually, the loans are amortized, and the interest rate must generally conform to that charged by the land banks on farm mortgage loans,

[35] The Farm Credit Act of 1953 provides for retirement of the government-supplied capital.

which was 4 to 4½ percent in 1954.[36] Also a borrowing cooperative is required to purchase stock in the bank equal to 5 percent of the loan or to pay an equivalent amount into a guaranty fund. The bank is pledged to return the stock or the interest in the guaranty fund to the cooperative when the loan is repaid, if requested to do so.

Commodity loans are secured by first liens on storable commodities, warehouse receipts, and other title documents representing agricultural products and supplies. According to law, loans cannot exceed 75 percent of the market value of unhedged commodities, and 90 percent of the value of hedged commodities; in practice, cooperatives usually borrow less than the maximum, and the actual amount of loan extended also depends on the cooperative's financial condition and operating record. The loans usually mature at the end of the marketing year or season. For several years interest rates were about 1½ percent per year, but in 1954 the range by farm credit districts was from 2¾ to 3¼ percent. The equivalent of one percent of a commodity loan must go toward the purchase of capital stock or into a guaranty fund.

Operating capital loans are made for short periods of time and may or may not be secured. They carried an interest rate of 2½ percent for several years and ranged from 3 percent to 3½ percent in 1954. Five percent of the loan is allocated to stock purchase or guaranty fund payment.

The heaviest borrowers from the banks for cooperatives have been the cooperatives handling farm products, including grains, fruits and vegetables (except citrus fruits), and cotton fibers, and those handling farm supplies, including petroleum products. Of the $6.5 billion in credit extended from 1933 through June 30, 1954 cooperatives handling cotton fibers received $1.4 billion, grain marketing associations $1.3 billion, farm supply associations $746 million, and associations marketing and processing fruits and vegetables exclusive of citrus fruits $709 million.[37]

Although information is not complete, it appears that the businesses borrowing from the banks for cooperatives are somewhat larger than those borrowing from commercial banks. Thus, a 1936 survey found that 57 percent of the marketing and purchasing cooperatives borrowing from commercial banks, as against 44

[36] For 1941–1944 and in 1946 and 1947, the interest rate on facility loans was 3½ percent; in all other years the rate was 4 percent. For a discussion of interest rates on land bank loans see pp. 162–163.

[37] *Annual Report* of the Farm Credit Administration, 1953–1954, p. 42.

percent of those borrowing from the banks for cooperatives, had total sales in 1936 of less than $100,000; and 6.3 percent of the cooperatives with sales of $1,000,000 or over borrowed from the banks for cooperatives, as against only 3.4 percent from commercial banks.[38] Further evidence to this same general effect is supplied by a 1950 survey of Minnesota cooperatives,[39] where it was found that the average loan made to local associations and minor federations by the banks for cooperatives was twice as large as the average commercial bank loan to such concerns. Regional cooperatives showed the opposite pattern; but those borrowing from the banks for cooperatives more frequently obtained more than one loan, so that the average amount of total credit obtained was higher for them—over half again higher—than for regional associations borrowing from commercial banks.

EXPERIENCE

Like the land banks and PCA's, the banks for cooperatives had much higher losses in the thirties than in the forties. At the end of 1941, cumulative net losses on assets acquired in liquidation of loans totaled $1.4 million, which was equivalent to 0.20 percent of all loans made since the organization of the banks or 0.29 percent of cumulative outstandings based on average month-end balances. After 1941, losses declined to relatively low amounts. During the fiscal years 1943 and 1944 small net recoveries were realized on assets previously acquired, and from 1945 through June 30, 1954 total net losses on assets acquired were $2.8 million. Total net losses from time of organization through June 30, 1954 were $4.0 million,[40] equivalent to a loss rate of 0.06 percent of the total amount of loans made or 0.12 percent of cumulative outstandings based on an average of month-end balances.

Government aid to the banks for cooperatives consisted primarily of 3.3 billion dollar-years of interest-free capital up to June 30, 1954. With an assumed interest rate of 2 percent this amount of capital would have cost about $67 million. In comparison, the net profit of the banks from their organization to June 30, 1954 was

[38] *A Statistical Handbook of Farmers Cooperatives*, Bulletin 26, Farm Credit Administration, November 1938, Table 118, p. 178.

[39] E. Fred Koller, T. W. Manning and O. B. Jesness, *Statistics of Farmers' Cooperatives in Minnesota, 1950*, University of Minnesota Agricultural Experiment Station Bulletin 412, June 1952, Table 56, p. 64.

[40] *Annual Reports* of the Farm Credit Administration, 1952–1953 (p. 43) and 1953–1954 (p. 106).

$78.4 million, with allocation of $50.0 million to earned surplus, $20.3 million to legal reserve and $8.1 million to reserve for contingencies,[41] so that cumulative profit easily covered the cost of government-supplied capital at the interest rate assumed.

Federal Farm Mortgage Corporation

ORGANIZATION AND SERVICES

In the farm mortgage distress of the early thirties a direct agency of the federal government was created to extend emergency credit, utilizing land bank facilities but not limited to land bank standards. The genesis of the organization goes back to the Emergency Farm Mortgage Act of 1933, which set up a fund of $200 million (made available through the RFC) for mortgage loans on farm real estate to be extended by the Land Bank Commissioner in cases where the restrictions surrounding the operations of the land banks prohibited them from lending. The fund proved inadequate, however, and in 1934 the Federal Farm Mortgage Corporation was formed (by the act of that name: 48 Stat. 344; 12 U.S.C. 1020 *et seq.*) to take up the mortgage loan assets that had already been acquired by the Commissioner, to make such further loans as could be financed through the original $200 million fund, and to make additional loans from the proceeds of sales of fully guaranteed bonds, of which the corporation was authorized to have up to $2 billion outstanding.

The Commissioner was authorized to lend up to 75 percent of a farm's normal agricultural value (that is, its value assuming average yields and under price relationships comparable to those in 1909–1914), whereas regular land bank loans were limited to 50 percent of the value of the land plus 20 percent for buildings. Commissioner loans were secured either by first mortgages on farms involving risks considered too great for the land banks or by second mortgages supplemental to land bank loans. Under a May 1935 amendment of the Emergency Farm Mortgage Act of 1933, the Commissioner was also authorized to make loans to persons receiving part of their income from nonfarm sources—provided the joint income from all sources would support the farm family, maintain the farm, and service the mortgage loan—where the property offered as security was valued at an amount representing a prudent investment. This special, "prudent investment value" program was a relatively small

41 *Annual Report* of the Farm Credit Administration, 1953–1954, p. 101.

proportion of total Commissioner activity. Altogether, from May 1935 through June 30, 1946 only 5,307 of these loans, for about $12 million, were made. During the same period, approximately 261,000 loans of all kinds were closed under the Commissioner program for an aggregate amount of more than $470 million.

The main program began swiftly and attained large volume in the depression period. Between May 1, 1933 and December 31, 1936, $898 million was loaned, of which about $337 million was secured by first mortgages and the balance by second mortgages. Most of the second mortgage loans—almost $500 million—were made as joint land bank (first mortgage) and Commissioner (second mortgage) loans, and the balance as second mortgage loans subject to existing land bank loans. After 1936 the volume of Land Bank Commissioner lending declined rapidly, and from 1937 to the termination of the program on July 1, 1947 only $320 million was loaned, somewhat more than one-third of the amount loaned during 1933–1935.

Commissioner loans secured by second mortgages were made in practically all instances on properties acceptable for land bank first mortgage loans, but the first mortgage Commissioner loans went characteristically where the risk of lending was considered too great for the land bank system. Among these were loans on nonsustaining farm units where the operator placed substantial reliance on income earned off the farm, loans to irrigation, drainage, and levee districts of uncertain strength, loans to farmers in areas subject to excessive field or stream erosion or in areas where the type of agriculture was undergoing considerable change, and loans on farms which, while yielding the operator sufficient income to carry the loan, had such limited sale or rental prospects that losses would almost inevitably ensue in the event of foreclosure.

The average maturity of both first and second mortgage Commissioner loans made in the 1933–1935 period was about thirteen years, with annual principal payments beginning after the third year. As a result of delinquency and collection experience during this period, however, it was decided to reset many of the loans for longer terms, thus providing more liberal amortization schedules. By December 31, 1940 approximately 135,000 loans, representing three-tenths of the total number of loans outstanding on that date had been reset.[42]

[42] *Eighth Annual Report* of the Farm Credit Administration, 1940, p. 57.

EXPERIENCE

The greatest concentration of delinquencies in the 1930's was along the one-hundredth meridian—in eastern Montana, North Dakota, South Dakota, Nebraska, Kansas, and Oklahoma—and the resetting of Commissioner loans in these states generally ran above the national average. For most of the area west of the Mississippi, with the exception of Texas, almost half of the first mortgage loans had been reset by the end of 1940. By the end of 1940, of the $1 billion loaned under the Commissioner program 24 percent had been reset, 3.6 percent had been extended one or more times, and 1 percent had been deferred.[43] Among the loans outstanding at the end of 1940 about 25 percent were delinquent or extended, which compares with 22 percent for regular land bank loans (Table 30, above).

It was the policy of the Federal Farm Mortgage Corporation during the thirties not to foreclose if the borrower was making a reasonable effort to carry the loan, was applying the proceeds of farm production over and above necessary living expenses to the payment of obligations, and was taking care of the property, all provided he had the capacity to support a reasonable debt burden under normal conditions. As a result, from 1933 through 1940 the corporation acquired only $108 million of property, about 10 percent of the total amount loaned. It was FFMC's policy to sell foreclosed properties as soon as possible, and by the end of 1940 about 76 percent of the total number of properties acquired had been sold for an average recovery of 71.8 percent of the investment. This represented a total loss of $22.2 million—equivalent to a charge of about 0.42 percent on cumulative outstandings. In comparison, the land banks had a loss of 0.51 percent on the basis of cumulative outstandings. Almost certainly, a less liberal policy on the part of FFMC in the resetting, extension, deferment, and foreclosure of loans would have resulted in higher losses.

From 1941 to 1954, trends in loan delinquency, property acquisition, and losses under the Commissioner program corresponded with those of other farm mortgage lenders. The percentage of loans delinquent declined from about 25 percent in 1939–1940 to about 7.6 percent during 1945–1947. Although acquisitions were fairly frequent in 1942–1944—about $32 million as compared with about $34 million in 1939 alone—the recovery rate rose steadily from 70.4 percent in 1940 to 89.6 percent in 1946, the year before the program

[43] Horton et al., *op.cit.*, p. 120.

was terminated. Total losses from 1941 to 1951 on property acquired were about $15.8 million, a loss rate equal to 0.57 percent of cumulative outstandings. For the entire span of the program from 1933 to 1951, losses on farms acquired were $38.0 million, about 3.12 percent of the total amount loaned. The increase in agricultural income and appreciation in property values that occurred after 1941 naturally resulted in much lower losses than would otherwise have been sustained.

It is possible to estimate roughly the relationship between over-all costs and revenues, including among expenses the cost of government-supplied capital for which the corporation was not required to pay interest. Direct government aid to the FFMC through mid-1954 included some 1.9 billion dollar-years of interest-free capital, beginning with the capital subscription of $200 million in 1934. At an interest rate of 2 percent, this would have cost the corporation about $39 million. Moreover, like the land banks, the FFMC received a reimbursement—$57 million—from the Treasury for interest rate reductions passed on to borrowers. In comparison, the cumulative earnings of the FFMC on June 30, 1954 consisted of $145.5 million —$129 million in dividends paid to the Treasury and an earned surplus of $16.5 million. The corporation also had the benefit of a federal guarantee of the interest and principal of its bonds, and this indirect aid was doubtless an appreciable advantage in its financing program. Even so, it appears that up to mid-1954, and with but a small amount of mortgages remaining to be extinguished, the Commissioner loan program had been more than self-supporting.

Farmers Home Administration

ORGANIZATION

Among direct agencies operated by the federal government to supply credit to farm operators, the most important in recent years has been the Farmers Home Administration, serving both the long-term mortgage and the short-term production-credit fields. In addition the Farmers Home Administration makes disaster loans to enable farmers who have suffered losses from natural or economic disasters to continue their production, and supplies credit for such special purposes as the development of water facilities.

A new and significant chapter in the history of federal lending activities began in 1935 with the establishment of the Resettlement Administration. This action, which was taken under Executive Orders

7027 and 7200 (April 30, 1935), combined in one agency the responsibility for the resettlement of low-income farm families that was shared among various agencies and the conduct of a rehabilitation program that was started with grants made by the Federal Emergency Relief Administration under the Federal Emergency Relief Administration Act of 1933 (49 Stat. 115). All of the duties and powers of the Resettlement Administration were transferred on January 1, 1937 to the Secretary of Agriculture by Executive Orders 7530 and 7557; and on September 1, 1937 its name was changed to the Farm Security Administration.

The Resettlement Administration was called upon to carry out not only approved projects involving the resettlement of low-income farm families, but also projects related to soil erosion, stream pollution, reforestation, flood control, etc., and to make direct rehabilitation loans to farm families. These loans could be made either to finance current operations or to refinance existing debt; furthermore, small grants could be made for the alleviation of distress among farm families. Loans to cooperatives were also extended under the rehabilitation program. The scope of lending was further broadened when the Farm Security Administration was authorized to make loans to farm tenants, laborers, and sharecroppers for the purchase of farms (Bankhead-Jones Farm Tenant Act of 1937: 50 Stat. 522; 7 U.S.C., Sup. 1000-1006).

Another step in the reorganization of these activities came in 1946 when the Farmers Home Administration Act of 1946 (60 Stat. 1062; 7 U.S.C. 1001 note) was passed. As a division of the Department of Agriculture, the new agency assumed the functions that had been performed up to that time by the Farm Security Administration and by the Emergency Crop and Feed Loan Division of the Farm Credit Administration. Under the powers granted in the 1946 act, the Farmers Home Administration is authorized to make operating or production loans to farmers or stockmen; to finance the purchase, improvement, or enlargement of family-size farms; to insure mortgages made by private lenders where the purpose is similar to that of the farm ownership loan program; and to make water facility and disaster loans.

In Title V of the Housing Act of 1949 (Public Law 171, 81st Cong.) financial and technical assistance was made available, through the FHA, to farm owners to provide themselves and their tenants with "decent" and "adequate" housing and farm buildings. In July

1953 a special program of loans to livestock operators in need of temporary financing because of drought or the decline in cattle prices was authorized. At the same time the FHA was authorized to make loans in areas in which economic disaster caused a critical need for agricultural credit that could not be met through established channels (including the regular programs of FHA). Such loans could be made only in areas declared by the President to be disaster areas under Public Law 875. Areas for economic disaster loans were first authorized late in October 1953. Also in recent changes the water facilities loan program was expanded to include various soil conservation facilities and practices, and in other ways; and a corresponding program of loan insurance was inaugurated. For the farm ownership program, authority to lend on second mortgage security was given.

FARM MORTGAGE SERVICES

Because its basic purpose has been to provide credit to farmers unable to qualify for loans from private lenders the Farmers Home Administration, like its predecessors, the Farm Security Administration and the Resettlement Administration, has had to ration loans among applicants, in contrast to the land banks, which have often had a surplus of loanable funds. The Farmers Home Administration mortgage program is designed to provide credit to low-income, small-scale farmers with little equity, on terms more favorable than offered by other lenders. To a considerable degree, this has meant that the Farmers Home Administration has not competed directly with private farm mortgage lenders, for the reason that these lenders would ordinarily not be serving the same market, even at higher rates.

Among the different types of farm mortgage loans made by the FHA and its predecessors, several come under the general category of farm ownership loans: (1) tenant purchase loans, authorized under the Bankhead-Jones Farm Tenant Act of 1937 (Public Law 210, 75th Cong.), to be made to tenants, farm laborers, or sharecroppers to enable them to buy farms and make necessary repairs and improvements on them; (2) rural rehabilitation loans (to cooperatives and projects), begun under the Resettlement Administration, and loans for financing, refinancing, redeeming, or repurchasing farms lost or in danger of being lost through foreclosure; (3) farm development and farm enlargement loans, directed to the problem of underdeveloped or inadequate farms; and (4) construction and improvement loans, authorized in October 1949, under which—through a "lease and purchase contract" (known as a 171 contract)—unimproved land is sold to a farmer who agrees to improve it under the supervision of, and with a loan provided by, FHA. In addition a farm housing loan program was begun under Title V of the Housing Act of 1949, making FHA credit and technical assistance available to farm owners for construction or repair of farm houses and buildings.

Loans under the tenant purchase program have been made on exceptionally liberal terms—3 percent interest originally (later 3½, then 4 percent), and thirty- to forty-year maturities—and have in some instances provided for the deferral of interest and principal when borrowers have been hard pressed to make their payments. Naturally, therefore, the limiting factor in the program has been the amount of funds available and the screening of applicants by the lending agency. Some limitations are effected also through the size of loans permitted. The average size of all loans approved from the beginning of the program through June 30, 1940 was $5,733.[44] But in five successive appropriation acts, beginning with that of 1941, Congress adopted the so-called Tarver limit, which provided that no loan might be made for the purchase of a farm that was of greater value than the average of all farms of thirty acres or more in the same county in which the farm was located. This limit varied considerably from county to county but was less than $4,000 in 35 percent of all counties in the United States and in 60 percent of all the counties in the South, which was fairly restrictive of the program.[45] As a result of this and other limitations on the amount that could be loaned in particular counties, the Farm Security Administration was unable to use, and returned to the Treasury, one-fourth of the 1944 appropriation.

Section 505(b) of the Servicemen's Readjustment Act of 1944 made veterans of World War II eligible for tenant purchase loans, and in the appropriations act of 1946 Congress earmarked for veterans $15 million of the $35 million appropriated for the program, to be distributed without regard to the Tarver limit or related limitations.

In 1946 the Farmers Home Administration Act made several im-

[44] Horton et al., *op.cit.* p. 139.

[45] Cf. Edward C. Banfield, "Ten Years of the Farm Tenant Purchase Program," *Journal of Farm Economics*, Vol. XXXI, No. 3, August 1949, pp. 474f.

portant changes in the program: (1) it provided federal insurance of privately made loans similar to FHA farm ownership loans, if a down payment of at least 10 percent had been made; (2) it increased the interest rate on direct farm ownership loans to 3½ percent and set the rate on insured loans at 2½ percent interest plus 1 percent charge for insurance and administration; (3) eligibility and preference was given to veterans of all wars; (4) limits on the distribution of loan funds among states were retained but each state was given a minimum of $100,000, with preference for veterans; (5) it authorized loans to farm owners (as well as to tenants and laborers) for repair, improvement, and enlargement of farms of less than family size and for refinancing loans made for that purpose; (6) it substituted for the Tarver limit a provision that loans should be limited to not more than the average value of an efficient family type farm in the county, as determined by the Secretary of Agriculture; and (7) it converted its variable payment plan to a conventional arrangement for prepayment.

After the 1946 revisions, the average size of FHA loan increased but the number of new borrowers being served declined (Table 39). From 1945 through 1952 the total outstandings of FHA's farm ownership loans—including farm purchase, farm enlargement, and farm development (special real estate) loans—remained at about the same level, averaging $190 million over the eight-year period. On the other hand, the corresponding loan insurance program expanded, and new borrowers under the housing loan program outnumbered those coming under both the direct and insured farm ownership programs (Table 39).

The Farmers Home Administration direct farm ownership and housing loans have been concentrated rather heavily in regions containing a relatively large number of low-income farms, while the insured loans have been more widely distributed. Out of $190 million of direct farm ownership loans outstanding on July 1, 1954 over $95 million was in the twelve southern states from the Carolinas to Texas,[46] while only $2.4 million was in the New England States. Not quite $60 million was in the fifteen states comprising the Middle Atlantic and North Central regions. Of the amount of insured loans outstanding on January 1, 1953, 30 percent was in the twelve southern states, and about half in the North Central group. Of the amount of direct farm housing loans, more than half was in the twelve southern states.

[46] *Agricultural Finance Review*, Vol. 17, November 1954, p. 86.

TABLE 39

Farmers Home Administration Real Estate Loans, and Insurance of Loans, to Individuals, 1938–1952

(dollar figures in thousands)

	FARM OWNERSHIP LOANS[a]			FARM OWNERSHIP LOAN INSURANCE[b]			FARM HOUSING LOANS		
YEAR	*Number of New Borrowers*	*Volume during Year*[c]	*Out-standings Dec. 31*	*Number of New Borrowers*	*Volume during Year*[d]	*Out-standings Dec. 31*[e]	*Number of New Borrowers*	*Volume during Year*	*Out-standings Dec. 31*
1938	2,028	$10,275	$ 10,275	..	..	..	..	..	..
1939	4,622	26,576	32,301	..	..	..	..	..	..
1940	7,025	39,713	66,286	..	..	..	..	..	..
1941	11,689	60,663	116,610	..	..	..	..	..	..
1942	7,680	35,695	160,258	..	..	..	..	..	..
1943	5,139	32,531	174,946	..	..	..	..	..	..
1944	6,755[f]	36,385[f]	196,815[f]	..	..	..	..	..	..
1945	2,713	16,767	185,060	..	..	..	..	..	..
1946	6,807	47,725	192,620	..	..	..	..	..	..
1947	3,364	26,359	198,279	..	..	..	..	..	..
1948	2,518	19,250	192,506	646[g]	4,623[g]	4,559	..	..	..
1949	1,839	15,396	192,457	1,727	12,324	16,700	..	..	..
1950	1,496	14,693	191,454	2,504	19,398	29,359	6,423[h]	29,077[h]	26,782
1951	1,969	22,298	190,282	1,376	11,981	43,084	4,853	23,789	47,631
1952	1,753	22,521	193,123	1,211	12,185	51,599	4,657	26,332	69,680

(continued on next page)

TABLE 39 (*continued*)

From *Agricultural Statistics, 1953* (Department of Agriculture), Table 755, p. 657.

[a] Covers tenant purchase, farm enlargement, and farm development (special real estate) loans; project liquidation loans; and similar loans from state corporation trust funds.

[b] Covers tenant purchase, farm enlargement, and farm development loans privately made under FHA insurance.

[c] For project liquidation loans, represents amounts advanced; for all other loans, amounts obligated. Includes supplemental loans to borrowers who received an initial loan in a prior year.

[d] Represents amount obligated. Includes supplemental loans to borrowers who received an initial loan in a prior year.

[e] For 1948 and 1949, represents amounts obligated less principal repayments; for 1950–1952, loan advances less principal repayments. From data as of January 1 of following year.

[f] Includes project liquidation loans advanced from inception of program through 1944.

[g] Loans obligated from beginning of program in October 1947 through December 1948.

[h] Loans obligated from beginning of program in November 1949 through December 1950.

NON-REAL-ESTATE CREDIT SERVICES

Non-real-estate credit programs for farmer-borrowers unable to obtain credit from other sources were grouped under the Farmers Home Administration in 1946. Emergency crop and feed loans made under the Farm Credit Administration since 1933 and the operating loans under the rural rehabilitation program of the Farm Security Administration (earlier, of the Resettlement Administration) were discontinued at that time, and the functions of these two programs were placed in the new production and subsistence loan program of the Farmers Home Administration. The water facilities loan program—chiefly for irrigation in the West, until broadened in 1954 to include soil conservation as well, and on a nationwide basis—was continued, along with the disaster loan program.

Of the programs carried on between 1946 and 1953, the production and subsistence loan program has been by far the largest (Table 32, ante). Under this program, a total of $614 million was advanced from November 1, 1946 to June 30, 1953, and $373 million in principal and $32 million in interest had been repaid. In comparison, loan advances under the disaster loan program (including fur and orchard loans) from April 1949, when Public Law 38 (81st Cong.) redefined it, through June 30, 1953 totaled only about $129 million, and advances under the water facilities program from its initiation in 1937 totaled only $28 million.[47]

In contrast to the farmers obtaining short-term credit from banks or from PCA's, non-real-estate borrowers under the Farmers Home Administration have usually been faced with an emergency situation; that is, a compelling need for operating funds arising from such circumstances as low yields or crop failure, low farm product prices, or personal or family adversities. Besides extending credit, the Farmers Home Administration staff aids borrowers in farm and home planning and budgeting, in carrying out programs of farm enlargement and improvement, and in becoming more efficient producers. As would be expected, those borrowing from the FHA for reasons of personal or family adversity have been widely distributed geographically and by type of farm, whereas those borrowing because of low yields or crop failure have been concentrated in high-risk areas such as the southern Cotton Belt and parts of the Great Plains. On July 1, 1954, for example, $88 million of the $365 million of production and subsistence loans outstanding[48] in the United States was in the five states of Georgia, Mississippi, Arkansas, Oklahoma, and Texas. More than $62 million of the $106 million of disaster loans outstanding[49] was in Texas, Oklahoma, Arkansas, and Missouri. About $7 million of the $18 million emergency crop and feed loans outstanding was in North and South Dakota.

EXPERIENCE

Experience under the farm ownership program has naturally been greatly affected by the fact that farm prices and income have moved generally upward since its beginning. From 1937 through June 30, 1953, a total of about $428 million of direct loans had been made by the FHA or its predecessor the Farm Security Administration: of this amount about $190 million was still outstanding; repayments of $237 million had been made, and $1,018,000—about 0.24 percent of the amount advanced—had been written off as losses and accounts

[47] *Report of the Administrator of the Farmers Home Administration, 1953,* pp. 22f.

[48] Also includes rural rehabilitation, water facility, construction, and wartime-adjustment loans, and such loans made from state corporation trust funds. See *Agricultural Finance Review,* Vol. 17, November 1954, p. 96.

[49] Now called "production and economic emergency loans." The figures are inclusive of special livestock, flood-damage, flood- and windstorm-restoration, fur, and orchard loans, and loans formerly made by the Regional Agricultural Credit Corporation.

totaling $323,000 were in process of judgment. The related insurance program and the farm housing loan program both began too recently to have produced meaningful experience data. From 1946 through mid-1953, $64 million of farm ownership loans by private lenders had been insured, and repayments of $7.5 million had been made.[50] From 1949 through mid-1953, $81 million in farm housing loans had been advanced by FHA to more than 16,300 farm owners; by June 30, 1953 about $10 million of principal had been repaid and $71 million was outstanding.

As to non-real-estate credit extended by the FHA and its predecessors, experience information is fullest for the oldest and largest of the programs, the composite known as production and subsistence loans. Up to November 1, 1946, when the rural rehabilitation and the emergency crop and feed loan programs were discontinued as separate undertakings and their functions delegated to FHA, these loans resulted in a considerably higher rate of loss than most other federal farm credit programs. Under the rural rehabilitation loan program as such a total of $1,005 million was loaned to farmers from 1934 through 1946. Collections of interest and principal amounted by June 30, 1953 to $1,012 million and about $46.1 million was still outstanding. However, the principal repayments which were received amounted to only 88.4 percent of the maturities. In the case of crop and feed loans, farmers borrowed about $576 million from 1918 to November 1, 1946, and by June 30, 1953 the principal paid back totaled $474 million or 82.4 percent of the amount advanced. On the production and subsistence loans made after November 1, 1946 (when FHA took over), by June 30, 1953, $614 million had been advanced, $373 million of principal had been repaid, $1,340,000 in principal had been written off, and $165,000 was under review.[51]

Experience under the disaster loan program is not easily summarized, but it is reasonable to expect that the over-all loss rate will be higher than that encountered in the production and subsistence programs. Loan operations are for the most part limited to counties designated by the Secretary of Agriculture as disaster areas, and the amounts obligated from year to year fluctuated widely, depending on the prevalence of flood, drought, insect infestations, and other types of disasters. From April 1949 through June 30, 1953,

[50] *Report of the Administrator of the Farmers Home Administration, 1953,* pp. 26f.

[51] *Report of the Administrator of Farmers Home Administration, 1953,* pp. 22 and 24f.

loan advances totaled $129 million, principal repayments $75 million; only $6,828 in principal had been written off and $79,660 was in process of judgment (together, 0.07 percent of total advanced).[52]

Loss rates on water facilities loans are lower than those for disaster and production and subsistence loans. Although these loans are restricted to cases where other financing is not available, they are made for specific production purposes, such as repair or development of irrigation facilities, by individual farmers or by groups of farmers. On June 30, 1953 the cumulative total of loan advances was $27.8 million and principal repayments were about $11 million. Only $6,541 in principal had been written off and $3,505 was under review. This loss rate, even including the amount under review, would be negligible—about 0.04 percent of total loan advances.[53]

It is not possible to make an accurate estimate of the amount of government aid extended in the programs collected within the Farmers Home Administration because services of a farm-home supervisory nature have been involved along with credit activities, and because of the wide variety of circumstances in which loans and grants were made. Generally speaking, it appears that the federal government has recovered the equivalent of the capital advanced in loan programs, but only if interest as well as principal repayments are regarded as offsets to the original capital investment. However, an added consideration is that a total of about $153 million in grants under the rural rehabilitation program was expended (1935 through 1946) and about $364,000 in farm housing grants (1949 through mid-1953).[54] Since loans and grants were sometimes made to the same individual, part of the grant program may be considered as a cost of the loan programs. Between 1945 (when debt settlement was authorized by Public Law 518) and June 30, 1953 the Farmers Home Administration, in settling debts under current and past programs on loans dating as far back as 1918, recovered $16 million on a principal balance of $48 million (with unpaid interest of $19.4 million); and unpaid balances in other cases totaling $105 million in principal and $40 million in interest were settled by cancellation.[55] The conclusion is that the programs as a whole have not been self-

[52] *Report of the Administrator of the Farmers Home Administration, 1953*, pp. 30f.

[53] *Ibid.*, p. 28.

[54] *Ibid.*, p. 23, and *Agricultural Statistics, 1947* (Department of Agriculture), Table 697, p. 598.

[55] *Ibid.*, p. 32.

supporting, although cumulative payments of interest and principal have come close to balancing the total principal amount advanced.

Veterans' Administration

The special provisions for veterans under the farm-ownership and farm housing loan programs of the Farmers Home Administration have been mentioned. In addition, the Veterans' Administration itself has been authorized since the end of World War II to guarantee or insure loans by other lenders to veterans for the purchase, construction, or improvement of farm properties.

The number and amount of farm loans guaranteed or insured by the Veterans' Administration increased rapidly in 1946 and 1947 and then declined. As will be seen from Table 40, while only 1,064 loans were insured or guaranteed in 1945, a total of 17,138 loans were insured or guaranteed in 1946. Between 1945 and 1954 the average size of loan increased somewhat, from about $3,600 in 1945–1946 to about $4,400 in 1953–1954.

Rural Electrification Administration

ORGANIZATION AND SERVICES

Another direct farm lending agency of the federal government is the Rural Electrification Administration, through whose facilities mortgage credit with a maximum term of thirty-five years, and currently carrying interest rates of 2 percent, is made available in amounts up to 100 percent of the cost of constructing rural electrification facilities. Like the bank for cooperatives the REA was established to provide credit mainly to cooperative organizations, in this case those engaged in the generation and distribution of electric power. It also makes short-term loans to individuals for purchase and installation of electric appliances and plumbing and for wiring of homesteads, through buying consumer installment contracts made by REA-financed power distributors.[56] In October 1949, REA was

[56] A similar program was that of the Electric Home and Farm Authority. In 1933 Executive Order 6514 created the Electric Home and Farm Authority, Inc., a direct agency of the federal government, first organized as a Delaware corporation with the directors of the Tennessee Valley Authority also serving as its directors and with the object of increasing employment and stimulating the use of TVA-generated electric power. This was to be accomplished by providing facilities for discounting installment contracts arising out of the sale by accredited dealers, on a deferred payment basis, of electrical home appliances and equipment. In 1935 a new corporation—the Electric Home and Farm Authority, disassociated from TVA and related closely to the Rural Resettlement Adminis-

TABLE 40

Farm Loans Guaranteed or Insured by the Veterans' Administration, 1945–1954
(dollar figures in thousands)

YEAR	NUMBER OF LOANS MADE			TOTAL PRINCIPAL AMOUNT[a]	AMOUNT OF GUARANTY OR INSURANCE		
	Real Estate	*Non-Real-Estate*	*Total*		*Real Estate*	*Non-Real-Estate*	*Total*
1945	174[b]	890[b]	1,064	$ 3,585[b]	$ 390	$ 875	$ 1,265
1946	9,597[b]	7,541[b]	17,138	63,259[b]	22,141	7,685	29,826
1947	10,707	9,086	19,793	77,765	27,697	8,937	36,634
1948	5,290	5,118	10,408	42,004	13,704	4,857	18,561
1949	1,937	3,009	4,946	17,533	4,883	2,681	7,564
1950	2,003	3,155	5,158	19,400	5,364	2,603	7,967
1951	1,487	2,143	3,630	16,020	4,287	1,644	5,931
1952	613	1,332	1,945	7,892	1,804	811	2,615
1953	435	1,016	1,451	6,265	c	c	1,641
1954	457	967	1,424	6,464	c	c	1,830

From *Agricultural Statistics, 1953* (Department of Agriculture), Table 761, p. 661, and *Loan Guaranty* (Veterans' Administration), December 1953 and December 1954, pp. 53 and 57, respectively.

[a] Breakdown between real estate and non-real-estate loans is not available.
[b] Estimated.
[c] Not available.

authorized to make loans to telephone organizations, with preference to existing companies and cooperatives, for the expansion of telephone facilities in rural areas.

The REA was set up originally under Executive Order 7037 (dated May 11, 1935), issued under the authority of the Emergency Relief Appropriation Act of 1935 (49 Stat. 115). Its functions were redefined about four months later in Executive Order 7130 (August 7, 1935), and it was established as a permanent and independent agency by the Rural Electrification Act of 1936 (49 Stat. 1363; 7 U.S.C. 901 *et seq.*). Finally, it was transferred to the Department of Agriculture under the Reorganization Act of 1939 (53 Stat. 561).

The emphasis on lending to cooperatives is shown by the following distribution of borrowers under the Rural Electrification Act from the beginning through mid-1953:

Cooperatives	985
Public power districts	44
Other public bodies	26
Power companies	25
	1,080

The basic policy of REA, adopted in its formative period, has been to provide "area coverage": that is, once an area or locality has been entered, service is extended to cover all its parts, even though some of the projected power lines may prove unprofitable. The objective is to reach the so-called "fringe" areas and to serve relatively isolated farm families, as well as those located near the main power lines.

Congress has directed how the loan funds shall be allocated among the states. Under the original Rural Electrification Act, one-half of the amount authorized annually was allocated proportionately to the several states on the basis of the number of unelectrified farms when compared to the U.S. total. The remaining funds could be loaned as determined by the Administrator, except that not more

tration—was formed in the District of Columbia to take over the assets of EHFA and to widen the scope of its operations from a regional to a national basis. Seven of the eight directors of the new corporation were officers of the Reconstruction Finance Corporation and the other was the Rural Electrification Administrator. The operations of the agency were financed partly with government capital ($850,000) and partly with the proceeds of the sale to commercial banks of the corporation's notes, which, while unsecured, were issued under an RFC commitment to purchase them if not paid at maturity. Outstanding accounts of the Electric Home and Farm Authority were transferred in 1942 to RFC for liquidation.

than 10 percent of the remainder (after allocation of 50 percent on the basis of number of unelectrified farms) could be employed in any one state. When the REA was organized in 1935, approximately 11 percent of the farms in the United States were being served with central-station electricity, with the percentage varying from 36.7 percent in New England and 46.4 percent in the three Pacific Coast states to between 2 and 3 percent in the South Central or Cotton Belt states.[57] The allocation of REA funds according to the number of unelectrified farms in the various states has naturally resulted in a larger proportion of farmers being served by REA borrowers in the midwestern and southern states than in New England or on the Pacific Coast. Of the $2.5 billion loans made from organization to January 1, 1952, more than half of the total ($1.3 billion) had been loaned in twelve midwestern and southern states (Missouri, Texas, Minnesota, Iowa, North Dakota, Kentucky, Oklahoma, Wisconsin, Nebraska, Georgia, Kansas, and Tennessee), whereas less than one-twentieth of the total was loaned in the twelve states of the New England, Middle Atlantic, and Pacific Coast regions, as is shown in Table 41.

The most rapid development of the REA program has occurred since 1945. At the beginning of 1946 less than half a billion dollars had been advanced out of the loans made, whereas by the beginning of 1953 the total advanced was almost $2.2 billion, more than four times as much as was advanced through 1945.[58] By the end of fiscal 1953 a total of nearly $2.3 billion had been advanced to REA borrowers, and advances to telephone borrowers amounted to approximately $32 million.

As a result of this expansion, REA borrowers in recent years have served about half of the farms in the United States receiving central-station electric service. According to the annual REA survey of unelectrified farms, as of June 30, 1953, 4,888,460 farms (as defined in the 1950 census) or approximately 9 out of 10 farms in the United States were receiving central-station electric service.[59] About 54 percent of these were being served by REA borrowers. Of the total of 3,952,000 rural consumers being served by REA borrowers, approximately two-thirds were farmers.

57 *Agricultural Statistics, 1953* (Department of Agriculture), Table 842, p. 731.
58 *Ibid.*, Table 765, p. 663.
59 *Report of the Administrator of the Rural Electrification Administration, 1953*, pp. 1, 14, and 15.

TABLE 41

Rural Electrification Administration Loans Classified by Purpose, 1935–1951

(dollar figures in thousands)

STATE AND TERRITORY	TOTAL LOANS: *Number of Borrowers*	TOTAL LOANS: *Amount Approved*	LOANS TO COOPERATIVE ASSOCIATIONS[a]: *Number of Borrowers*	LOANS TO COOPERATIVE ASSOCIATIONS[a]: *Amount Approved*	LOANS BY PURPOSE: *Line Construction and Working Capital*	LOANS BY PURPOSE: *Generation and Transmission*	LOANS BY PURPOSE: *Consumer Facilities*[b]	MILES OF LINE PROVIDED FOR BY LOANS[c]	NUMBER OF CONSUMERS PROVIDED FOR BY LOANS[c]
Maine	5	$ 2,129	5	$ 2,129	$ 1,800	$ 269	$ 60	933	4,234
New Hampshire	2	5,561	1	5,361	5,513	8	40	2,351	7,298
Vermont	3	3,572	3	3,572	3,359	150	63	1,976	5,927
Massachusetts	0	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0
Connecticut	0	0	0	0	0	0	0	0	0
New York	7	5,495	6	3,631	5,400	0	95	4,056	13,774
New Jersey	2	996	2	996	984	0	12	549	2,689
Pennsylvania	13	27,860	13	27,860	27,523	87	250	16,180	62,807
Ohio	29	49,332	28	47,597	47,259	1,775	298	28,432	113,469
Indiana	47	54,183	46	53,753	53,770	56	357	35,320	139,035
Illinois	28	77,015	27	76,934	71,759	4,886	370	44,057	133,118
Michigan	15	49,491	15	49,491	28,362	20,716	413	17,138	64,679
Wisconsin	31	90,886	30	90,795	41,412	48,813	661	29,948	83,478
Minnesota	54	130,364	52	129,389	106,876	22,228	1,260	77,454	186,561
Iowa	55	117,720	53	117,620	76,465	40,957	298	56,064	135,423
Missouri	49	195,069	48	195,034	135,024	59,353	692	79,908	244,472
North Dakota	25	97,626	24	97,013	68,289	28,925	412	49,966	64,634
South Dakota	34	74,744	34	74,744	63,344	11,302	98	44,345	67,139
Nebraska	36	90,155	11	23,994	75,996	13,581	578	53,040	96,397
Kansas	37	82,719	36	82,713	74,595	7,847	277	51,643	93,524

(continued on next page)

TABLE 41 (*continued*)
(*dollar figures in thousands*)

STATE AND TERRITORY	TOTAL LOANS		LOANS TO COOPERATIVE ASSOCIATIONS[a]		LOANS BY PURPOSE			MILES OF LINE PROVIDED FOR BY LOANS[c]	NUMBER OF CONSUMERS PROVIDED FOR BY LOANS[c]
	Number of Borrowers	*Amount Approved*	*Number of Borrowers*	*Amount Approved*	*Line Construction and Working Capital*	*Generation and Transmission*	*Consumer Facilities*[b]		
Delaware	1	$ 3,032	1	$ 3,032	$ 3,027	$ 0	$ 5	1,934	7,091
Maryland	2	12,735	2	12,735	10,535	2,200	0	5,195	25,114
Virginia	22	69,507	21	69,314	48,781	19,240	1,486	26,913	98,747
West Virginia	2	1,422	2	1,422	1,407	0	15	857	3,203
North Carolina	38	78,701	33	77,352	70,614	6,100	1,987	40,788	170,286
South Carolina	28	52,347	26	50,861	41,948	9,181	1,218	29,283	113,559
Georgia	46	85,385	45	85,278	79,483	4,037	1,865	58,928	221,176
Florida	17	32,908	15	32,695	27,860	3,861	1,187	18,082	55,664
Kentucky	28	97,757	27	97,755	82,954	14,450	353	45,519	191,136
Tennessee	33	81,807	22	75,920	81,388	264	155	41,102	247,281
Alabama	27	64,288	25	62,771	55,804	7,879	605	34,511	147,671
Mississippi	27	76,377	26	75,983	72,898	3,121	358	45,700	194,821
Arkansas	21	79,160	20	78,637	54,408	23,785	967	37,291	129,537
Louisiana	19	39,793	17	37,367	34,620	4,921	252	21,197	97,893
Oklahoma	28	97,614	27	97,429	82,003	15,258	353	55,983	131,082
Texas	98	180,604	97	179,568	159,949	18,699	1,956	127,974	308,180
Montana	25	37,339	25	37,339	34,743	2,461	135	21,612	35,574
Idaho	10	13,842	10	13,842	12,464	1,281	97	6,419	16,448
Wyoming	16	21,016	15	20,938	18,650	2,241	125	11,654	17,967
Colorado	23	49,496	22	49,367	43,744	5,592	160	25,712	58,875
New Mexico	17	42,204	16	42,069	31,517	9,372	1,315	16,307	39,934
Arizona	10	15,438	8	15,196	8,581	6,537	320	3,537	11,234
Utah	8	14,226	8	14,226	3,963	10,198	65	2,145	6,579
Nevada	2	364	0	0	279	75	10	165	745

(*continued on next page*)

TABLE 41 (*continued*)
(*dollar figures in thousands*)

STATE AND TERRITORY	TOTAL LOANS		LOANS TO COOPERATIVE ASSOCIATIONS[a]		LOANS BY PURPOSE			MILES OF LINE PROVIDED FOR BY LOANS[c]	NUMBER OF CONSUMERS PROVIDED FOR BY LOANS[c]
	Number of Borrowers	*Amount Approved*	*Number of Borrowers*	*Amount Approved*	*Line Construction and Working Capital*	*Generation and Transmission*	*Consumer Facilities*[b]		
Washington	24	$ 28,534	14	$ 19,356	$ 25,838	$ 2,617	$ 79	13,197	32,412
Oregon	17	27,117	16	26,692	23,297	3,731	89	9,276	28,466
California	8	11,394	6	5,369	9,905	1,477	12	3,167	23,211
Alaska	6	14,688	6	14,688	6,679	7,915	94	863	7,357
Virgin Islands	1	432	0	0	235	197	0	85	912
United States and territories	1,076	$2,484,444	986	$2,379,827	$2,015,304	$447,643	$21,497	1,298,756	3,940,813

From *Agricultural Statistics, 1952* (Department of Agriculture), Table 755, p. 752. State totals represent data for borrowers incorporated within the state.

[a] United States totals for other types of borrowers are: public power districts, 41 borrowers, $82,295,129; municipalities and other government authorities, 24 borrowers, $13,070,089; power companies, 25 borrowers, $9,251,731.

[b] Funds loaned to corporate borrowers for relending to individuals. Includes wiring, plumbing, and refrigeration installations.

[c] Includes miles energized and consumers connected.

EXPERIENCE

Up to June 30, 1953, losses had been taken on only two loans made by the Rural Electrification Administration: one was foreclosed as a result of damage caused by a hurricane and resulted in a loss of $28,550 of principal and $5,081 of interest; the other involved writing off an advance for engineering purposes when the borrowing cooperative was dissolved—before construction of facilities—on the entry of a private power company into the territory, which raised the loss figure to $45,000 (principal and interest).[60]

Government aid to the REA has consisted of: (1) the payment of administrative expenses, which amounted to $76,788,479 between 1935 and June 30, 1953, and (2) the provision of low-cost capital. From 1935 to September 19, 1944 the REA borrowed from the Reconstruction Finance Corporation at an interest rate of 3 percent. As of June 30, 1947 the REA relationship with the RFC was discontinued and loan funds were thereafter borrowed from the U.S. Treasury. According to a memorandum of understanding between the Administrator of the REA and the Secretary of the Treasury, the interest paid to the Treasury by the REA was to be the average rate paid on all marketable securities outstanding at the beginning of the fiscal year, with a maximum of 2 percent. The rates paid by REA borrowers, which have generally been lower than those paid by public utility firms, have sometimes been above, and sometimes below, the rate of interest paid by REA for its funds.

Impact of the Programs on Agriculture

The credit services offered by federal and federally sponsored agencies in the field of agriculture have had important and far-reaching impacts on agriculture and agricultural lenders. Government credit programs have affected the flow of resources into agriculture, and their allocation within agriculture and as between agriculture and the rest of the economy, producing results that may be read in terms of the amount of capital employed, farm employment, and agricultural output. Further, federal and federally sponsored agencies, by establishing what has often been a different pattern of interest rates, equity requirements, and other loan terms, have had an important impact on other agricultural lenders. In some cases they have functioned in a complementary, and sometimes in a

[60] *Report of the Administrator of the Rural Electrification Administration, 1953*, pp. 32 and 34.

competitive relation with private agencies. These principal effects are discussed below.

EFFECTS ON AGRICULTURAL OUTPUT

Since the demand for credit by farmers is affected by the level of farm prices and other business conditions, as well as by their own debt, and savings-asset position, no close relationship has been found between changes in the amount of credit used by farmers and changes in the aggregate volume of agricultural output. During World War II, for example, agricultural output increased by about one-fifth while the total amount of farm mortgage credit and of non-real-estate credit outstanding declined.[61] From the beginning of 1946 to 1953, on the other hand, total farm debt rose more rapidly than the volume of agricultural output. Farm mortgage debt increased then by about 50 percent and non-real-estate debt more than doubled, whereas agricultural output increased at a notably slower rate. Changes in the volume and distribution of farm debt often reflect ownership changes, and although the normal effect of increased use of credit is to raise farm output, and of decreased credit use to lower it, these effects have not been precisely measured. Farm management specialists working with production functions or production responses are just beginning to attack this quantitative problem.

Stringent credit conditions (like adverse terms of trade for farmers) affect farm output by restricting the employment of factors used in farm production, particularly hired labor, machinery, and supplies. This can be seen most clearly perhaps in the period of declining farm income and tightening credit conditions during 1929–1933, when the index of farm prices (1910–1914 = 100) fell from 148 to 70, going as low as 65 in 1932.[62] The volume of farm mortgages made or recorded dropped from $1,463 million in 1929 to $823 million in 1933, and the amount of non-real-estate farm credit outstanding dropped from about $2,684 million on January 1, 1929 to about $1,401 million on January 1, 1934.[63] The total acreage of crops planted increased somewhat during these years—rising from 363 million to 373 million acres—and the number of people employed in agriculture dropped only slightly—from 12.8

61 *Agricultural Outlook Charts, 1954* (Department of Agriculture, Bureau of Agricultural Economics), October 1953, pp. 32 and 40.

62 *Agricultural Outlook Charts 1954*, p. 11.

63 *Agricultural Statistics, 1952*, Tables 728 and 732, pp. 722 and 726.

million in 1929 to 12.7 million in 1933, or by one percent.[64] The index of power and machinery used on farms dropped by about 10 percent.[65] But farmers' expenditures on labor, machinery, and supplies fell sharply. The number of hired laborers employed declined by about one-seventh (from 3.4 million in 1929 to 2.9 million in 1933)[66] and farm wage rates dropped by more than 50 percent.[67] Farm machinery prices declined by less than 10 percent,[68] but expenditures on motor vehicles and machinery, including repair parts for machinery, fell by more than 70 percent.[69] The number of tractors purchased by farmers declined from 137,000 in 1929 to 25,000 in 1932, a drop of more than 80 percent.[70] The total amount of farm equipment and related products sold for use in the United States dropped from $458 million in 1929 to $302 million in 1935;[71] the value of total farm equipment manufactured fell from $606 million in 1929 to $214 million in 1931, or by more than 65 percent.[72] Expenditures on several other items used in farm production, such as costs of operating motor vehicles, seeds, twine, electricity, and other items consumed in day-to-day farm operations, did not decline proportionately. Fertilizer prices, however, declined from an index of 131 in 1929 to 96 in 1934 (1910–1914 = 100), a drop of about 27 percent;[73] and the tonnage of commercial fertilizer consumed declined from 8,208,000 in 1929 to 4,545,000 in 1932, a drop of about 45 percent.[74] Although declining prices for farm products were the chief motivating force in bringing about these declines in employment

64 *Ibid.*, Table 664, p. 644, and *Agricultural Statistics, 1953*, Table 665, p. 565.

65 Martin R. Cooper, Glen T. Barton, and Albert P. Brodell, *Progress of Farm Mechanization*, Department of Agriculture, Misc. Pub. 630, 1947, p. 81. The index number measures volume in terms of 1935–1939 average dollars, 1870 = 100.

66 *Agricultural Statistics, 1953*, Table 665, p. 565.

67 *Farm Wage Rates, Farm Employment and Related Data*, Department of Agriculture, Bureau of Agricultural Economics, 1943, pp. 3f. The index of farm wage rates (1910–1914 = 100) was 187 in 1929 and 89 in 1933. With 1929 = 100, wage rates were 48 in 1933. See also *Agricultural Statistics, 1952*, Table 659, p. 639.

68 *Agricultural Statistics, 1952*, Table 696, p. 684.

69 Calculated from data on machinery manufactured, prices of machinery and equipment, and value of farm equipment and machinery sold in the United States from 1929 to 1931. *Agricultural Statistics, 1945*, Tables 590, 592, and 593, pp. 454ff.

70 *Ibid.*, Table 591, p. 454.

71 *Ibid.*, p. 456. Census was not taken during 1932–1934. Includes plows and listers, harrows, rollers and pulverizers, planting machinery, cultivators and weeders, harvesting machinery, machines for preparing crops for market or use, tractor and tractor engines, internal combustion engines, horse-drawn vehicles, sprayers and dusters, elevators and blowers, hand tools, dairy equipment, poultry equipment, barn and barnyard equipment, and miscellaneous.

72 *Ibid.*, p. 456.

73 *Ibid.*, p. 429.

74 *Ibid.*, p. 467.

of the various factors or resources, the stringency of credit was no doubt a contributing influence.

Even here, however, the effect of credit changes on aggregate agricultural output would not be great. The Bureau of Agricultural Economics index of "total inputs" used in farm production (1935–1939 = 100) declined only moderately from 107 in 1931 to 101 in 1933, 96 in 1934 and back to 99 in 1935. In years of credit stringency (as during declines in farm product prices) farmers postpone expenditures on machinery and equipment, buildings, and other capital investments and tend to "make do."[75] At such times, changes in the index of agricultural output are apt to be small (but not insignificant) in comparison with changes in the indexes of farmer expenditures on certain factors, particularly hired labor, machinery, fertilizer and supplies.

An increase in the supply of credit will lead to a greater increase in output if the funds made available are expended on machinery and equipment, fertilizer and supplies, than if the funds merely finance ownership changes of resources already employed in agriculture. An expansion in farm mortgage credit that merely facilitates transfers of land in a rising land market will have little if any effect on output, whereas expansion of credit to overcome some of the adverse effects of "capital rationing" on efficiency[76] will have greater effects on output. In contrast to the trends of the early depression years from 1929 to 1933, there was a marked increase in the use of fertilizer and in purchases of machinery, motor vehicles, and farm supplies during most of the period after 1932 (except for the effect of shortages during the war), and a pronounced upward trend after 1946. The amount of fertilizer used increased from 4,545,000 tons in 1932 to 8,656,000 tons in 1940 and to 22,700,000 tons in 1952.[77] The amount spent on the operation of tractors, motor vehicles, and trucks used in farm work increased from $384 million in 1932 to $584 mil-

[75] Cf. J. K. Galbraith and J. D. Black, "The Maintenance of Agricultural Production During Depression: The Explanations Reviewed," *Journal of Political Economy*, June 1938, pp. 205-223, and D. Gale Johnson, "The Nature of the Supply Function for Agricultural Products," *American Economic Review*, September 1950, pp. 539–564.

[76] Capital rationing in agriculture is defined as a situation in which the rate of return on additional capital invested would be greater than the interest rate, or the marginal cost of capital, but the farmer because of caution or inability to borrow does not borrow or invest the additional funds. Cf. Harold G. Halcrow, *Agricultural Policy of the United States* (New York: Prentice-Hall, 1953), pp. 116, 117, 338–340.

[77] *Agricultural Statistics, 1952,* Table 710, p. 705 and *Agricultural Statistics, 1953*, Table 719, p. 621.

lion in 1940 and to $2,131 million in 1952.[78] Between 1932 and 1940, and again between 1946 and 1952, there was a high positive correlation between the amount of farm credit used and farm production expenditures.

The chief direct effects of federal credit programs on farm output, to the extent that these effects can be measured from percent of the market served, have come as a result of the expansion in land bank lending in 1934 and 1935 and the later expansion in production credit and rural electrification. Important indirect effects have come from the increased competition among lenders stimulated by federal lending agencies, including the important effect of the joint stock land banks in the 1920's. During the twenties, lending by the federal land banks, which amounted to not quite 13 percent of the total farm mortgage debt outstanding by the end of the period, probably had more indirect than direct effect on farm output. During the thirties the refinancing programs of the land banks and the Land Bank Commissioner exerted the dominant, direct influences on farm output attributed to credit extensions. In 1934–1935, $1.7 billion of farm mortgages were made under these two programs, consisting of a relatively few new loans and extensive refinancing (about one-fourth of the cases involving a scale-down of old indebtedness). Later, during the period 1937–1949, federal farm mortgage loans extended did not equal the amount paid off, and by January 1, 1951 the outstandings of the federal land banks and the Federal Farm Mortgage Corporation (holder of the Commissioner loans) were about $991 million, which compares with $2,642 million on January 1, 1941 and a high of $2,989 million on January 1, 1937. During the period after 1936, and particularly after 1946, such direct output-increasing effect as came from federal credit programs (excluding the price-support operation of the Commodity Credit Corporation) must be attributed mainly to the federally sponsored PCA's and to the Rural Electrification Administration.

EFFECTS ON THE AGRICULTURAL CREDIT MARKET

Additional imputations about the effects of federal farm credit programs on farm output, the capital structure of agriculture, and other lenders may be drawn from a study of the impact of the programs on the agricultural credit market. We seek to appraise the

78 *Agricultural Statistics, 1952,* Table 705, p. 701 and *Agricultural Statistics, 1953,* Table 713, p. 617.

effect of each of the major programs—mortgage credit, production credit, credit for farmers' marketing cooperatives, and credit for rural electrification—especially on interest rates, equity requirements, and other loan terms in the field of agriculture.

FARM MORTGAGE CREDIT

The most striking effect of federal lending in the farm mortgage field arose out of actions taken in 1934 and 1935. In 1934, 70 percent, and in 1935, 42 percent of the farm mortgages recorded were made by the federal land banks and the Land Bank Commissioner, as contrasted with only 3.0 percent in 1932, when all federal farm mortgage credit was provided by the land banks.[79] The increase in the total volume of farm mortgage credit extended in these years—from $903 million in 1932 to $1,820 million in 1934—was due entirely to the land bank and Commissioner programs, the activity of other lenders having decreased.

A major effect of this large volume of mortgage re-financing—done on terms that were much more liberal than those required by other lenders or previously by the land banks themselves—was a change in the ownership of farm debt, giving other holders of farm debt, especially mortgage debt, an opportunity to liquidate their investments. From the passage of the emergency legislation in 1933 to the end of the year, the land banks had received 502,470 applications under the regular and Commissioner programs for an amount of $2.1 billion—a total larger than applied for in the previous sixteen years.[80] During the four years from 1933 to 1936 the land banks closed 314,045 loans for an amount of $1.2 billion, and Commissioner loans brought the amount to more than $2 billion. During 1934 alone the combined programs loaned well over $1 billion. Afterward, from the beginning of 1937 to the end of 1940 their loans totaled only some $360 million. That land bank credit was largely used to refinance existing indebtedness is documented in Table 42, where it is shown that during the peak of loan operations in 1934 about 88 percent of the total extended under the regular program was for such purposes. The next largest use was to buy land and to redeem farm property from foreclosure. During 1934 only 2.4 percent of the total went for general agricultural uses including buildings and improvements. But such credit usage would have been

[79] *Agricultural Finance Review*, Vol. 16, November 1953, p. 98.
[80] *Annual Report* of the Farm Credit Administration for 1933, p. 8, and for 1952–1953, p. 69.

TABLE 42

Percentage of Proceeds of Federal Land Bank Loans Used for Given Purposes, 1917–1940

Year[a]	*Refinancing Indebtedness*	*Purchase of Land and Redemption from Foreclosure*	*General Agricultural Uses Including Buildings and Improvements*	*National Farm Loan Association Stock*[b]	*Loan Fees*[c]	*All Purposes*
1917–21	65.0%	18.0%	12.0%	5.0%	..	100.0%
1922	87.3	2.2	5.5	5.0	..	100.0
1923	84.6	3.8	6.6	5.0	..	100.0
1924	83.0	6.3	5.7	5.0	..	100.0
1925	78.5	9.5	7.0	5.0	..	100.0
1926	76.9	11.0	7.1	5.0	..	100.0
1927	80.4	8.7	5.9	5.0	..	100.0
1928	77.2	9.9	7.9	5.0	..	100.0
1929	74.0	14.0	7.0	5.0	..	100.0
1930	74.6	12.9	7.5	5.0	..	100.0
1931	79.8	8.6	6.6	5.0	..	100.0
1932	85.8	4.6	4.6	5.0	..	100.0
1933	86.8	3.3	3.8	5.0	1.1	100.0
1934	88.0	3.3	2.4	5.0	1.3	100.0
1935	d	d	d	d	d	d
1936	77.8	13.6	2.5	5.0	1.1	100.0
1937	69.2	21.4	3.3	5.0	1.1	100.0
1938	69.6	20.5	3.8	5.0	1.1	100.0
1939	67.3	22.7	4.0	5.0	1.0	100.0
1940	67.3	21.8	5.0	5.0	0.9	100.0

From *Farm-Mortgage Credit Facilities in the United States*, by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), Table 28, p. 94.

[a] Period 1917–21 is from organization through October 31, 1921. The years 1922 through 1926 refer to periods of twelve months ended October 31, and 1927 is a fourteen-month period ended December 31, 1927.

[b] Borrowers have been required to purchase stock in the federal land bank or national farm loan association equal to 5 percent of the loan.

[c] Statutes provide that borrowers may arrange with federal land bank making the loan to advance loan fees, such advance to be made a part of the face amount of the loan.

[d] Unavailable.

affected secondarily, since a farmer who improved his capital position by means of a land bank loan could more likely obtain additional funds for production purposes.

To what extent did the refinancing involve change in the ownership of farm mortgage debt rather than further extension of credit where the land banks already held mortgages? Scattered sources give an approximate idea. It is known that during 1933–1936 about two-thirds of the combined proceeds of land bank and Commissioner loans went to refinance farm mortgage indebtedness.[81] Nearly half of the amount of mortgage debt refinanced in 1936 (i.e. nearly one-third of the total amount loaned) had been owed to life insurance companies, commercial banks, and the joint stock land banks, and the other half to the federal land banks and to miscellaneous private lenders.[82] The latter may have accounted for roughly 30 percent of the mortgage refinancing, or 20 percent of the total amount loaned.[83] Thus the available data suggest that at least one-half of the funds made available through the land bank and Commissioner loan programs during 1933–1936 went to liquidate the farm mortgage investments of private lending institutions and individuals, transferring the long-term debt of the farms involved, upon new terms, to the portfolios of the land banks and the Federal Farm Mortgage Corporation. Similarly, indications are that over the long run, from 1917 through 1953, upwards of two-fifth of the total funds loaned by the land banks and FFMC represented their assumption of farm mortgage debt previously held by private lenders.

Geographically, the impact of the land bank and Commissioner programs centered most heavily in the North Central states. This is indicated in Table 43, where it is shown that 66 percent of the loans closed during 1933–1936 were in the East and West North Central regions. In comparison, during earlier periods the volume of loans made—substantially smaller in aggregate amount—had been less concentrated regionally. The concentration in the East North Central and still more in the West North Central states during 1933–1936, with the latter group receiving 42 percent of the total, is perhaps accounted for by the fact that at the beginning of 1933 an estimated 55 percent of the farm mortgage debt of the United States was in the two regions combined, and that the western part was a major farm mortgage trouble spot of the nation.[84]

The purpose of Congress in establishing the land bank system was

81 Horton et al., *op.cit.*, p. 23.

82 *Annual Report* of the Farm Credit Administration, 1936, pp. 122 and 157.

83 In 1941, 13.3 percent of the loan proceeds were used to refinance land bank and Land Bank Commissioner loans and 22.0 percent to refinance mortgages held by individuals and other miscellaneous lenders. See *Annual Report* of the Farm Credit Administration, 1941, p. 149, footnote 2.

84 See *Mortgage Lending Experience in Agriculture*, by Lawrence A. Jones and David Durand (Princeton University Press for the National Bureau of Economic Research, 1954), Chapters 1 and 2.

TABLE 43

Regional Distribution of Amount of Federal Land Bank Loans Made, Four-Year Periods 1917–1940

Region[a]	*1917–20*	*1921–24*	*1925–28*	*1929–32*	*1933–36*	*1937–40*
New England	1.9%	1.6%	1.9%	2.7%	1.0%	1.9%
Middle Atlantic	2.7	3.4	4.9	5.9	2.5	4.9
East North Central	10.0	13.4	17.5	16.4	23.4	20.6
West North Central	29.9	23.2	25.7	25.8	42.3	28.2
South Atlantic	8.6	10.3	7.7	4.5	5.0	5.7
East South Central	9.0	13.1	10.4	7.6	3.8	6.8
West South Central	17.3	17.5	19.7	22.0	10.1	13.6
Mountain	11.0	10.7	6.1	8.1	3.5	6.1
Pacific	9.6	6.7	6.0	7.0	8.4	12.2
United States	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

From *Farm-Mortgage Credit Facilities in the United States*, by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (Department of Agriculture, Misc. Pub. 478, 1942), Table 27, p. 93.

[a] States included in the regions are as follows: *New England*—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut; *Middle Atlantic*—New York, New Jersey, Pennsylvania; *East North Central*—Ohio, Indiana, Illinois, Michigan, Wisconsin; *West North Central*—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas; *South Atlantic*—Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida; *East South Central*—Kentucky, Tennessee, Alabama, Mississippi; *West South Central*—Arkansas, Louisiana, Oklahoma, Texas; *Mountain*—Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada; *Pacific*—Washington, Oregon, California.

to provide cheaper and more adequate sources of farm mortgage credit and thereby to encourage owner operation of farms. The land bank program introduced and encouraged long-term amortized mortgage lending at relatively low interest rates, and helped to protect farmer ownership by the large-scale refinancing program of 1934 and 1935. But the limitations on the amount that could be loaned an individual borrower became progressively more restrictive after about 1940 as land prices moved upward and away from the valuations fixed according to "normal agricultural value." How have these limitations affected owner operation of farms? The effect would be to give little aid in establishing farm ownership to those who have small amounts of equity, since when land prices are high the limitation to 65 percent of normal agricultural value restricts the amount that can be loaned to a proportion of the sale price considerably smaller than that. It is reported, for example, that on the first 66 farm purchases financed by the Federal Land Bank of St. Louis after July 1, 1947, the bank advanced a total of $159,500 on the total sale price of $748,650.[85] After deducting $9,000 for loan expense and stock purchases the borrowers had loans representing about 20 percent of the purchase prices. Although this is a small sample, the suggestion is implicit that land bank financing would have been generally restricted to those who had substantial equities.

The impact of the farm mortgage programs now under the Farmers Home Administration has been mainly confined to low-income farmers who could not get credit elsewhere. From 1937 through June 30, 1953 about $428 million of direct farm-ownership loans were made by the Farm Security Administration and then the FHA; and from October 1947 through mid-1953 similar loans of private lenders totaling about $64 million were insured by the FHA.[86] Through these programs approximately 76,000 farm families were helped to acquire farms or increase the size of their holdings, a number equal to about 3 percent of the not quite two-and-a-half million tenant farmers in the United States in 1940. About 10 percent of the loans (6,285 between 1939 and 1948) were made on family farm units created out of larger plantation holdings in the Cotton Belt states.[87]

Whereas land bank loans were larger for refinancing, most of the funds loaned by FSA and FHA—apparently more than two-thirds of the total—have been used for purchasing farms,[88] although the trend in recent years has been toward fewer loans for farm purchase and more funds for farm enlargement and development. Again in contrast with the land bank program, the largest part of the funds were disbursed in the southern states, as was shown earlier in the chapter in describing FHA credit services. A shift in appraisals was made in 1952, from historical averages of commodity prices and operating costs based on 1935–1939 conditions to appraisals based on recommendations of the Agricultural Research Service (then the

85 See "Federal Land Bank Dilemma," by John I. Smith, *Farm Policy Forum*, March 1950, pp. 9–14.

86 *Annual Report* of the Administrator of the Farmers Home Administration, 1953.

87 See *The Land Is Mine*, by Paul V. Maris (Department of Agriculture, Monograph 8, November 1951), p. 8.

88 In 1941, for instance, almost 70 percent of the funds advanced under the tenant purchase (farm ownership) program were for farm purchase, and in 1947 about 76 percent of the funds were so used. See "Ten Years of the Farm Tenant Purchase Program," by Edward C. Banfield, *Journal of Farm Economics*, August 1949, p. 474.

Bureau of Agricultural Economics) keyed to project levels of the economy.

The impact of the Farmers Home Administration farm ownership program on assets and income of borrowers was summarized in 1951 through a review of all loans made in 1939 and 1944.[89] The loans were amortized for forty years, but by the end of 1949, 65 percent of the 4,204 loans made in 1939 has been repaid and about two-thirds of the others were ahead of schedule in their repayment. Of the 5,402 families receiving ownership loans in 1944, 32 percent had repaid in full by 1949 and more than half the others were ahead of schedule. Among the 1939 borrowers still active in the program in 1949 (i.e. excluding those who had repaid in full), production per acre had increased by an average of 24 percent. Cash income from farming had increased from $855 per borrower in 1938 to $3,677 in 1949—a 66 percent gain after adjustment for changes in prices received for farm products—and net worth had increased from $1,528 to $8,473. Among the 1944 borrowers still active in the program, production per acre had increased by an average of 39 percent, cash income had increased from $1,725 per borrower to $3,260, and net worth from $2,276 to $6,345. These increases in productivity were relatively greater than the increases in the regional and national averages for agriculture as a whole. Also, although this was a period of general increases in cash farm income, the increases cited are considerably greater than the national average. Comparable data are not available on the borrowers who had repaid their loans in full, but doubtless the rate of increase in output, income, and net worth would be relatively greater for them than for those who were still paying on loans of similar type.

Turning again to changes of wider scope: The second major financial effect of the farm mortgage program was to reduce mortgage carrying charges for many farmers. A federal land bank borrower, for example, was given the privilege, during the five-year period ending July 10, 1938, of deferring his principal payments if he was not in default on any other covenant of his mortgage. In addition, about 150,000 of the more than 620,000 refinancing loans closed by the federal land banks or the Land Bank Commissioner from May 1, 1933 through December 31, 1940 involved scale-downs of other indebtedness.[90] These debt reductions aggregated more than

89 *Annual Report of the Administrator of the Farmers Home Administration,* 1951, p. 27f.

90 Horton et al., *op.cit.*, p. 49f.

$200 million, or about one-third of the original indebtedness. In many instances they involved the writing off of past-due interest and the reduction of both real estate and non-real-estate indebtedness.

The Farm Security Administration also helped refinance farm debt. According to data compiled by that agency from reports submitted by state adjustment committees covering the period from September 1, 1935 to October 31, 1940, 230,936 applications for debt adjustment were considered by the committees, a number equal to about 3.4 percent of the total number of farm operators reported in the 1935 census. More than half of the cases (135,100) were adjusted, involving total indebtedness of about $423 million and a debt reduction of about $96 million, or 22.7 percent of the original amount. In addition, adjustments of $15 million on original indebtedness of about $22 million were made in 105 group cases including farmers' cooperatives and other business organizations. This debt adjustment program resulted in 101,004 loans by various credit agencies, distributed as follows:[91]

Lender Groups	*Number of Loans*
Federal land banks	12,802
Land Bank Commissioner	4,793
Production credit associations	1,920
Farm Security Administration	67,731
Insurance companies	535
Local banks	3,225
Individuals	7,122
Others	2,876
Total	101,004

During the years 1932–1934 the interest rates charged by all major farm mortgage lenders decreased significantly, with the land banks leading the field in the downward trend. The average contract interest rate on farm mortgages recorded by all lenders, which was 6.38 percent in 1932—just about what it had been in 1920 (6.40%)—fell to 5.84 percent by 1933 and to 5.33 percent by 1934.[92] The contract interest rate of the land banks in effect on January 1, 1933 was 5½ percent in all districts except the Columbia and New Orleans districts and the island of Puerto Rico, where the contract rate was 6 percent. Specific acts of Congress provided that the interest rates actually paid on loans through national farm loan associations be reduced to 4½ percent per year for all interest payable on install-

[91] *Ibid.*, pp. 50ff.
[92] *Ibid.*, Table 68, pp. 229–231.

ment dates within the period July 11, 1933 to June 30, 1935, and to 3½ percent per year for all interest payable on installment dates within the period July 1, 1935 through June 30, 1944 irrespective of the contract rate of the individual mortgages. This loss in interest income was reimbursed to the federal land banks by the Treasury. On July 1, 1944, a 4 percent interest rate was established voluntarily by the land banks for all loans outstanding at higher rates which were made through national farm loan associations. With the exception of the Federal Land Banks of Springfield, Baltimore, and Columbia, which have raised rates to 4½, 4½, and 5 percent, respectively, the contract rate has been 4 percent during recent years.

The contract interest rates on all Land Bank Commissioner loans during the entire period of the program was 5 percent. By acts of Congress, the interest rate was reduced to 4 percent on installments due on or after July 22, 1937 and before July 1, 1940, and to 3½ percent for installment dates occurring on or after July 1, 1940 and before July 1, 1944; and a 4 percent rate was in effect from July 1, 1944 through June 30, 1945.

Naturally, the interest rate policy in land bank and Commissioner lending had a marked effect on the rates charged by private lenders. During 1932–1935 the average contract interest rate on farm mortgages recorded declined from 5.87 percent to 5.53 percent for insurance companies, from 6.83 percent to 6.28 percent for banks, from 6.15 percent to 5.74 percent for individuals, and from 6.64 percent to 6.01 percent for other lenders.[93] Furthermore, the reductions were general over the country, although there was a tendency for them to be somewhat greater in those regions, such as the Mountain and West South Central States, where rates had previously been highest. How far these interest rate reductions were due to the competitive practices of the land banks, however, and how far to general economic conditions cannot be determined. Interest rates also declined on nonfarm mortgage loans: the average interest rate on nonfarm home mortgage loans made by life insurance companies, commercial banks, and savings and loan associations averaged about 1.5 percentage points lower in the period 1940–1947 than in 1930–1934.[94]

[93] *Ibid.*, Table 68, pp. 229–231.

[94] From National Bureau of Economic Research sample surveys. See *Urban Mortgage Lending: Comparative Markets and Experience*, by J. E. Morton (Princeton University Press for the National Bureau of Economic Research, 1956), Chart 6 and Table C-5, pp. 91 and 176.

Finally, the wider use of the amortized farm mortgage during the depression can probably be attributed in large part to the influence of the land banks, in whose lending it was a standard practice, although some influence may have been exerted by nonfarm mortgage financing, where the amortized loan also was becoming more general.

After 1936 the impact of land bank lending diminished as its volume declined and stabilized at around 10 to 13 percent of the total amount of farm mortgages made; and particularly after 1940 the role of the land banks changed. As land values rose, the statutory limitation of their loans to 65 percent of the value of the farm as it would be appraised under more representative price conditions was increasingly restrictive, and the influence of the land banks became that of a relatively conservative element in the farm mortgage market.

PRODUCTION CREDIT

The federally sponsored production credit system, although playing a much less spectacular role during the depression years of the thirties than the land bank system, has had an important effect on loan terms in the farm production credit field. The credit services provided by PCA's are similar to the short-term non-real-estate credit services provided by banks and have affected competitively the activities of commercial banks and other non-real-estate lenders in the farm credit market.

The PCA interest rate, which was uniform up to 1947 (except that in Puerto Rico it was one-half of one percent higher than elsewhere), and which had only slight regional differentials subsequently, doubtless affected the terms on which credit was extended by private lenders. The impact of the production credit program differed widely, however, from one part of the country to another, as is indicated by the variations in the percent of the market served by PCA's. In Iowa in 1951, for example, only 2.2 percent of the farmers borrowed from PCA's, whereas 65.7 percent borrowed from commercial banks.[95] By way of contrast, in Vermont in 1951 about 12.3 percent of the farmers borrowed from PCA's and 29.0 percent from commercial banks, and in West Virginia the percentages were 1.6 and 9.6, respectively. Yet the full impact of the PCA's cannot be assessed by reference to the percentage of the credit market that

[95] *Agricultural Credit and Related Data, 1953* (Agricultural Commission, American Bankers Association), Table 5, pp. 18f.

they serve. The mere fact of their existence as an alternative source of credit doubtless caused private lenders to offer loans on more liberal terms than would otherwise have been the case.

Among the credit programs merged under the Farmers Home Administration, those other than the farm ownership program—that is, emergency crop and feed loans, disaster loans, and production and subsistence loans—come largely (but not entirely) within the field of non-real-estate credit. In the main they have been noncompetitive with the activities of other lenders, since the general policy has been to lend only to farmers regularly or temporarily unable to get credit elsewhere. It seems likely that these programs, being restricted to special groups of borrowers, have had little effect on the loan terms of other lenders. Essentially, the Farmers Home Administration programs are outside the mainstream of farm production credit. Their chief effect would be to carry low-income farmers and farmers in disaster areas through periods of adversity, and if they affected the farm credit market, it would be through the possibility that such farmers might become or remain users of credit supplied through ordinary channels.

Production and subsistence loans, or rehabilitation loans as they were called under the Farm Security Administration, have represented by far the largest part of the Farmers Home Administration program and no doubt have had important effects on the income and bargaining position of the borrowing farmers. By the end of 1942, more than a million farmers had received rehabilitation loans from the Farm Security Administration.[96] Loans outstanding amounted to about one-fifth of the short-term farm debt held by the major credit institutions. Between 1944 and 1952 an average of just under $100 million was extended annually. The production and subsistence loans are intended to help farmers build up their productive assets and living necessities so that labor and management skills can be used most effectively; and after a few years borrowers are expected to develop their farms to the point where they can qualify for credit from local banks or PCA's. The number and proportion reaching that status will vary, of course, from year to year. In 1950, for example, 59,000 farmers, about one-fourth of all active borrowers, repaid their operating loans in full. In about 4 percent of the cases

[96] *Agricultural Statistics, 1943* (Department of Agriculture), p. 461. The figure inclusive of water facility loans is used, since they are not separable in the other data quoted.

final payment was made from the proceeds of loans obtained from banks or PCA's.[97]

CREDIT FOR FARMERS' COOPERATIVES

The major effect of the banks for cooperatives has been to decrease the cost of borrowing for farmers' cooperatives and thus, presumably, to stimulate their growth. That the existence of the banks for cooperatives has been felt by other lenders is indicated by the fact that the federally sponsored banks have served about one-half of the credit market originating with farmers' cooperatives. The services provided by the banks have been used most heavily by the medium-sized and largest cooperatives, rather than the small-scale enterprises, and accordingly it is the private lenders serving these groups that have been most acutely affected.

CREDIT FOR RURAL ELECTRIFICATION

The REA program accelerated rural electrification not only through the rapid expansion of REA facilities but probably also by stimulating private utilities to undertake more extensive expansion programs than they would otherwise have attempted. As of June 30, 1953, REA electrification loans approved total $2.7 billion and the advances to borrowers totaled $2.3 billion. Approximately 1.3 million miles of lines were energized and almost 3.9 million consumers were connected, of whom more than 2.5 million were farmers, these being about half of the farmers using central-station power in the United States. Private utilities were doubtless stimulated by REA to accelerate their own rural electrification programs and to reconstruct generating capacity to provide electricity at wholesale to REA cooperatives. Thus, on the assumption that REA facilities did not displace private utilities, it is almost certain that the demand for credit by private utility companies was increased over what it might otherwise have been.

Further, the provision of central-station electrical power, by making possible a technological revolution in agriculture, probably extended the base for the profitable employment of borrowed funds. The average investment in wiring and electric appliances is unknown, but studies made by the REA indicate that it is approximately $2,000 per farm. If this figure is correct, the direct capital invest-

[97] *Annual Report of the Administrator of the Farmers Home Administration, 1950*, p. 8.

ment on farms from services provided by REA borrowers would total more than $5 billion, and possibly as much as $2 billion more would be added for investments made by other consumers. Thus, there has been a far-reaching impact from the REA program both on agriculture and on agricultural lenders.

The direct impact of the REA program differed considerably from one part of the country to another because its funds were allocated among states largely according to the number of unelectrified farms. The southern and midwestern areas receiving the greater part of the credit have been delineated earlier, in describing the agency's services.

CONCLUSION

The agricultural credit programs of the federal government lowered the cost of credit to farmers, farm cooperatives, and rural electrification cooperatives, and have had a general output-increasing effect on resource allocation among farms. The refinancing program undertaken by the land bank system in the 1930's brought relief to both farmer-borrowers and farm-mortgage lenders. Since then the federal land banks have been restricted to serving a smaller percentage of the markets and have been more conservative lenders as the result of statutory limitations on the amounts that could be extended to individual borrowers. The growth in the production credit system, particularly since 1940, has provided an alternative source of credit to farmers, and has had an important effect on the terms on which production credit is made available to farmers. The programs of the Farmers Home Administration have provided credit to some farmers who could not obtain it from other sources, although the programs have touched only a small percentage of the farm population. The program of the banks for cooperatives has provided a cheaper source of credit for cooperative associations and thus has probably contributed to their growth. Likewise REA credit has stimulated the growth of rural electrification, with indirect effects on farm output.

In many respects the agricultural credit programs have brought about important institutional effects. Thus, the policies of the public agencies worked toward greater uniformity in both mortgage and production credit costs throughout the nation, bringing the largest relative reductions in the costs of farm credit in the South and the West. Federal land banks have tended not only to lower the price of mortgage credit to farmers but also to lengthen the terms to maturity that were available. They functioned as leaders in farm mortgage markets, setting terms and conditions that private lenders were compelled to meet if they were to retain their positions in the market. To a lesser degree, the PCA's have likewise been aggressive market leaders in the field of production credit, encroaching upon the markets formerly served exclusively by nongovernmental lenders. In part commercial banks and life insurance companies have yielded market position to the publicly sponsored agencies; in part, however, they have met the increasingly liberal terms with loans carrying lower interest charges and longer maturities than formerly. These effects of public agencies on farm credit markets occurred mainly during a period of secular decline in the structure of interest rates outside of agriculture. The course of events might have been quite different in a different economic environment. Finally, the federal and federally sponsored agencies constitute an organization in being that can be used and has been used to help facilitate national credit policies on interest rates and other loan terms, and thus affect the amount and type of credit available in the economy.