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COUNTRY BANKING IN WISCONSIN DURING THE DEPRESSION
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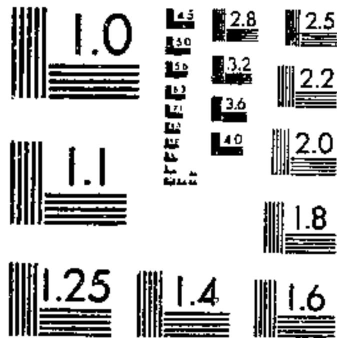

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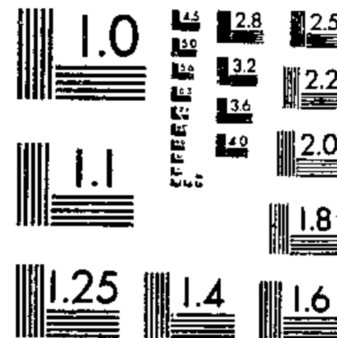

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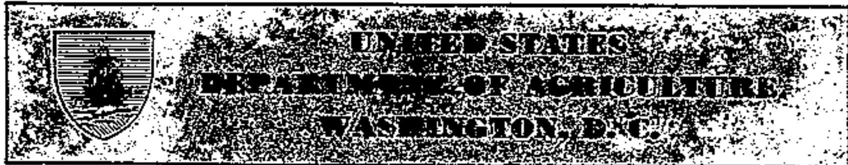

Country Banking in Wisconsin During the Depression

By Fred L. Garlock

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INTRODUCTION

Why did farmers lose so heavily from bank failures and reorganizations during the depression following 1929? Why were the credit facilities, that customarily had been extended to farmers by country banks, so drastically curtailed during the depression? In an effort to find the answers to these questions the Bureau of Agricultural Economics, in cooperation with the agricultural experiment stations of several States, has made since 1932 three studies of country banking. These studies were conducted in widely separated parts of the country in order that banking problems peculiar to various types of farming might be brought to light.[2]

As country banks seldom, if ever, conduct business exclusively with farmers, the objectives could not be attained by confining attention to the relations between farmers and country banks. It has been necessary to inquire into all important phases of the banks' operations.

[1] Acknowledgment is made to B. H. Hibbard of the Wisconsin Agricultural Experiment Station for assistance in making arrangements for the study and for helpful suggestions regarding the manuscript, and to William H. Rowe and George Y. Jarvis of the Bureau of Agricultural Economics, and Harold T. Lingard, then of the Wisconsin Agricultural Experiment Station, for obtaining data from the banks. Mr. Jarvis also helped with the analysis of the data and contributed many helpful suggestions on the manuscript.

[2] For a report on the first study, see Garlock, Fred L., and Gile, B. M., bank failures in arkansas. Ark. Agr. Expt. Sta. Bul. 315, 78 pp., illus. 1935. A manuscript based on the third study, dealing with country banking in Utah, will soon be completed.

Some of these operations, such as their investments in securities and their loans to business firms, may seem to have only a remote bearing upon the positions of farmers. The fact is, however, that the curtailments of credit and the losses sustained by farmers as a result of banking disturbances during the depression often were related more directly to the character of the banks' nonfarm business than to that of their business with farmers.

Efforts to improve the functioning of country banks are not likely to succeed unless they are based upon due consideration of all factors that influence the positions of country banks. With this thought as a guiding principle, attempts were made to determine the elements of both strength and weakness in country-banking policy, whether or not such elements have an agricultural origin. Relationships between farmers and country banks are emphasized only when the positions of farmers are found to have differed significantly from the positions occupied by other classes of the banks' patrons.

Though the data used in this study relate only to Wisconsin banks, it is believed that the problems and experiences of these banks have been similar to those of banks located in other areas where savings deposits constitute a large proportion of total deposits and where the local industries are not highly seasonal. The conclusions are therefore considered to be applicable to banks located throughout the North Central and Northeastern States, and to many banks in other sections of the country.

Data relating to deferments and waivers of deposits and changes in capital structures cover all banks that operated in Wisconsin during the period 1930–36, inclusive. They were compiled with the aid of the Wisconsin State Banking Department, the Federal Deposit Insurance Corporation, the Board of Governors of the Federal Reserve System, and the Comptroller of the Currency. Data relating to the aggregate deposits of operating Wisconsin banks and to deposits in trusts administered by receivers or other official liquidating agents were compiled mainly from the published reports of banking authorities.

For the remaining parts of the study, the data relate to 58 banks, widely scattered among the towns and smaller cities of the State. These banks were selected from banks operating in small places in order that they should be representative of the banks most commonly patronized by farmers. Most of the banks were small; their total assets in 1929 varied from $101,000 to $3,598,000 and averaged $725,000. Forty-two operated under State and 16 under national charters. Information concerning their operations and financial conditions was obtained from the call reports, earnings reports, and examination reports on file at the State banking department and the Federal Reserve banks of Chicago and Minneapolis. These banks will be referred to hereafter as "the 58 country banks."

From the 58 banks, 17 were selected for special study. The total assets of these banks ranged in 1929 from $206,000 to $2,614,000 and averaged $662,000. In size and in other respects they reflected the variations found in the entire group of 58. Through the cooperation of their managements, these banks were visited in person to obtain data not available in the files of supervisory authorities. Such data included monthly statements of condition, and much detailed information concerning bank loans. These 17 banks will be referred to hereafter as "the 17 selected banks."

BANKING DEVELOPMENTS IN WISCONSIN, 1930–36

From the standpoint of banking developments, the period covered by this bulletin may be divided into two parts. The first covers the descent into the depression, roughly 1929 to March 1933. It was characterized by severe shrinkages of deposits and by many bank suspensions, culminating finally in the "bank holiday." The second part covers the period from March 1933 to the end of 1936. It was characterized by the reopening of all banks that appeared to be solvent and by a large-scale reorganization program designed to salvage the solvent elements in banks that could not be reopened.

Numbers of Banks Suspending Payments to Depositors

At the end of 1929, 953 State and national banks, exclusive of mutual savings banks, were in operation in Wisconsin (table 1). By the end of 1933, the number of banks had been reduced to 445, or 47 percent, mainly as a result of suspensions. For the period, 1930–36, the net decline in numbers of banks in Wisconsin was 348, or 37 percent. These declines were offset partially by an increase from 9 to 108 in the number of branch offices, including paying and receiving stations.

Table 1.—*Changes in number of Wisconsin banks, 1930–36*

Item	1930–33		1934–36		1930–36	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Active banks at beginning of period [1]	953	100	445	100	953	100
Decrease due to:						
Suspensions [2]	505	53	10	2	515	54
Consolidations	90	9	43	9	133	14
Voluntary liquidations and unclassified causes	5	1	3	1	8	1
Increase due to:						
New banks organized [3]	10	1	19	4	29	3
Suspended banks reopened [4]	82	9	197	44	279	29
Net change in number and percentage of banks	−508	−53	160	36	−348	−37
Active banks at end of period	445	47	605	136	605	63

[1] Excludes mutual savings banks.
[2] Includes banks unlicensed by June 30, 1933.
[3] Includes banks organized to succeed closed banks but not banks organized to succeed operating banks.
[4] Includes banks licensed after June 30, 1933.

Compiled from data given on pp. 1104 and 1121 of the Federal Reserve Bulletin for November 1937.

It is difficult to form a clear conception of the developments of the period unless the banks that went out of existence during the depression through suspensions and consolidations are classified in such a way as to indicate the treatment accorded their depositors. To provide a more detailed picture of banking developments in the State, an attempt was made to ascertain the extent to which the deposits of the Wisconsin banks in operation at the end of 1929 were affected by deferments, waivers, and receiverships during the depression. It was necessary in many cases to trace the banks' deposits through one or more mergers or reorganizations. When a new bank was formed to succeed a bank in receivership, the deposits taken over by the new bank were regarded as the old bank's deposits continued on by the new bank; and when the deposits of several banks were combined through mergers or consolidations, pro rata parts of the deposits of the absorbing or succeeding bank were regarded as assignable to the banks that had gone out of existence.

In table 2, the 962 Wisconsin banks that were in operation at the end of 1929 are classified according to the later status of their deposit businesses. This tabulation covers 6 mutual savings banks, 1 trust company, and 2 temporarily suspended State banks, that were excluded from the Federal Reserve data. Of these banks, 270, or 28 percent, are designated class A banks because their deposits never were subject, during the depression, to any restrictions or deferments of payments except those imposed during bank holidays. Class B banks were 191 in number, or 20 percent of the total. On portions, at least, of the deposits of these banks, there were deferments of payments over and above those imposed during bank holidays, but their deposits were subject to no more drastic measures than these. With class C and class D banks, the deposits were subjected to much more drastic measures than merely temporary deferments of payments. Class C banks, 324 in number and 34 percent of the total, include those the deposits of which were in part waived to depositors' trusts or left with receivers for final liquidation.[3] The deposits of the 177 class D banks, at time of suspension, were left in their entirety to receivers for final liquidation, no part being released through reorganization procedures.

TABLE 2.—*Classification of Wisconsin banks operating at end of 1929 according to the status of their deposit business during period 1930–36*

Class of bank	All banks in State		Banks located in places of—			
			Less than 5,000 population		5,000 population and over	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Class A, business survived intact without even temporary deferment of payments to depositors [1]	270	28	138	19	132	58
Class B, business survived intact after temporary deferment of payments to depositors [2]	191	20	175	24	16	7
Class C, business survived in part, a portion of deposits being waived to depositors' trusts or left in receivership	324	34	282	38	42	18
Class D, business failed, all deposits at time of suspenpension being left in receivership	177	18	138	19	39	17
Total	962	100	733	100	229	100

[1] Restrictions imposed during bank holidays are disregarded.
[2] Deferments arising from the closing and reopening of banks, failure to be licensed by Apr. 12, 1933, waivers by depositors of rights to withdraw, and arbitrary restrictions imposed by banks.

DISTRIBUTION OF BANKS ACCORDING TO PERCENTAGES OF 1929 DEPOSITS THAT WERE DEFERRED, WAIVED, OR LEFT IN RECEIVERSHIP

Tables 3, 4, and 5 show the numbers of banks at the end of 1929 the deposits of which were later deferred temporarily, waived to depositors' trusts, or left with receivers for final liquidation, and the relation between the deposits affected by these measures and the deposits of the banks at the end of 1929. The deposits affected by these special measures are stated as percentages of the deposits at the end of 1929, rather than deposits at the time the measures were applied, in order not to obscure the fact that large amounts of deposits were liquidated before the banks were closed or restricted.

[3] The term "depositors trusts" is used throughout this publication to designate liquidating or segregated trusts administered by depositors' committees. The term "receiver" is used to designate the liquidating agents for "closed" banks.

The deposits classified in table 3 as temporarily deferred include only the deferred deposits that were not later waived to depositors' trusts or left with receivers for final liquidation. All of the class B banks and all but two of the class C banks had such deferments. A few class D banks also had temporary deferments before their deposits were placed with receivers for final liquidation. With these banks temporary deferments arose mainly from the closing and reopening of banks, or the deferment and later release of deposits through temporary waiver agreements, prior to the time when the remaining deposits were placed with receivers for final liquidation. At one time or another, some of the deposits of 56 percent of the banks in operation at the end of 1929 were affected by temporary deferments, aside from those incident to bank holidays.

TABLE 3.—*Wisconsin banks having specified percentages of their 1929 deposits deferred temporarily during 1930–36* [1]

NUMBER OF BANKS

Class of banks [2]	Total	Distribution by percentage of deposits deferred				
		None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
A	270	270	0	0	0	0
B	191	0	0	39	132	20
C	324	2	91	200	29	2
D	177	147	25	5	0	0
All banks	962	419	116	244	161	22

PERCENTAGE OF BANKS

Class of banks [2]	Total	None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
A	100	100	0	0	0	0
B	100	0	0	20	69	11
C	100	1	28	61	9	1
D	100	83	14	3	0	0
All banks	100	44	12	25	17	2

[1] Deferred deposits that were later waived to depositors' trusts or left with receivers for final liquidation are not included.
[2] For description of classes of banks, see table 2.

Waivers to depositors' trusts were employed in readjusting the deposit liabilities of 92 percent of the banks the deposit businesses of which were radically reorganized (class C banks) and about 7 percent of the class D banks, before the businesses of such banks were finally terminated by receiverships (table 4). For the State as a whole, portions of the deposits of 32 percent of all banks operating at the end of 1929 were waived to depositors' trusts.

Though banks were sometimes waived to solvency before the depression, this means of reorganizing insolvent banks came into prominence primarily as an emergency measure for dealing with depression conditions. Its widespread use among State banks in Wisconsin resulted from the passage of legislation in 1932 and 1933 providing that: (1) Banks could place themselves, or be placed, in the hands of the State banking department for stabilization and readjustment without losing their power to receive and pay out new deposits; and (2) stabilization agreements acceptable to the banks and to the holders of 80 percent of their deposits and unsecured claims—or a smaller percent

at the discretion of the Commissioner of Banking—could be made binding on all other depositors and unsecured claimants. The stabilization procedure was regarded as preferable to the closing and liquidation of banks because it maintained facilities for the receipt and payment of new deposits and permitted the liquidation of frozen assets and deposits by a going concern.

TABLE 4.—*Wisconsin banks having specified percentages of their 1929 deposits waived to depositors' trusts during 1930–36* [1]

NUMBER OF BANKS

Class of banks [2]	Total	Distribution by percentage of deposits waived				
		None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
A	270	270	0	0	0	0
B	191	191	0	0	0	0
C	324	26	157	137	4	0
D	177	164	9	4	0	0
All banks	962	651	166	141	4	0

PERCENTAGE OF BANKS

Class of banks [2]	Total	None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
A	100	100	0	0	0	0
B	100	100	0	0	0	0
C	100	8	49	42	1	0
D	100	93	5	2	0	0
All banks	100	68	17	15	(3)	0

[1] Waived deposits which were later placed with receivers for final liquidation are not included.
[2] For description of classes of banks, see table 2.
[3] Less than 0.5 percent.

The national bank law had neither of these provisions until after the bank holiday in 1933. Then, in the acts relating to conservatorships and reorganizations, powers were granted under which the conservators of national banks could receive and pay out new deposits, while withholding payments on old deposits, and the banks could be reorganized upon a basis that was acceptable to two-thirds of the banks' stockholders and to the holders of 75 percent of the unsecured claims against the banks. Under these provisions 10 national banks were waived to solvency and 15 others by an informal procedure obtained waivers from certain of their depositors before these provisions were enacted. Waivers obtained before March 1933 were binding only on the assenting depositors. Several additional national banks obtained waivers from depositors, but were later reorganized on a different plan.

During 1930 and 1931, before the practice of "stabilizing and readjusting" banks had come into common use, banks that became insolvent or unable to meet their liabilities usually were placed and left in the hands of receivers for final liquidation. This procedure was followed later with banks that, for various reasons, could not be stabilized on a satisfactory basis. With these banks (class D banks) the deposits which were left with receivers for final liquidation ranged, as a rule, from 51 to 75 percent of the 1929 deposits (table 5). A few class C banks also had receiverships, but portions of the deposits of

these banks were released through other banks or the organization of new banks. All told, about 21 percent of the banks operating at the end of 1929 had portions of their deposits administered finally by receivers.

TABLE 5.—*Wisconsin banks having specified percentages of their 1929 deposits left with receivers for final liquidation during 1930–36*

NUMBER OF BANKS

Class of banks [1]	Total	Distribution by percentage of deposits left with receivers				
		None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Number	*Number*	*Number*	*Number*	*Number*	*Number*
A	270	270	0	0	0	0
B	191	191	0	0	0	0
C	324	296	0	16	3	0
D	177	0	1	44	108	24
All banks	962	757	10	60	111	24

PERCENTAGE OF BANKS

Class of banks [1]	Total	None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
A	100	100	0	0	0	0
B	100	100	0	0	0	0
C	100	91	3	5	1	0
D	100	0	1	25	61	13
All banks	100	79	1	6	12	2

[1] For description of classes of banks, see table 2.

RELATION OF DEFERMENTS, WAIVERS, AND RECEIVERSHIPS TO SIZE OF PLACE AND AREA IN WHICH BANKS WERE LOCATED

Of the banks operating in Wisconsin at the end of 1929, the deposits of all but 28 percent were involved during the period 1930–36 in deferments, waivers, or receiverships, or a combination of these measures, and the deposits so involved in most cases amounted to from one-half to three-fourths of the banks' 1929 deposit volumes. Such measures were employed most frequently in places of less than 5,000 population, where the deposits of 81 percent of the banks were so affected. In places of more than 10,000 population, and in places of from 5,000 to 10,000 population, the percentages of banks involved were 39 and 53, respectively.

The poorer showing of banks located in small places was due in part to the fact that attention was given first, after the bank holiday in 1933, to reopening banks in the larger places. As a result of the delay in licensing banks in small places, some that were just as solvent as licensed banks in larger places were unlicensed on April 12, 1933, and were here classified as having deferred deposits. Data on deposits waived to depositors' trusts and left with receivers for final liquidation, however, leave no doubt that serious difficulties occurred most commonly among the banks in small places (table 6). Such difficulties appear, from these data, to have been most widespread in the western livestock and dairy, and the central general-farming sections of the State.[4]

[4] See fig. 1 for counties included in these sections

TABLE 6.—*Wisconsin banks the deposits of which were waived to depositors' trusts or left with receivers for final liquidation during the period 1930–36, and percentages of 1929 deposits so affected*

NUMBER OF BANKS

Location of banks	Total	Distribution by percentage of deposits affected				
		None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
Places, 5,000 population or over:	*Number*	*Number*	*Number*	*Number*	*Number*	*Number*
Milwaukee	42	30	5	3	3	1
40,000–99,999	37	28	3	2	4	0
20,000–39,999	67	40	9	9	7	2
10,000–19,999	24	16	2	3	3	0
5,000–9,999	59	34	8	7	8	2
Total	229	148	27	24	25	5
Places less than 5,000 population:						
A—Northern cut-over	102	48	14	23	14	3
B—North-central dairy	42	23	8	6	5	0
C—Northwest livestock and dairy	130	51	20	29	22	8
D—Southwest livestock and dairy	134	46	20	39	25	4
E—Central general farming	83	26	19	26	11	1
F—Northeast dairy	95	46	20	18	9	2
G—Southeast dairy	147	73	36	24	12	2
Total	733	313	137	165	98	20
Total State	962	461	164	189	123	25

PERCENTAGE OF BANKS

Location of banks	Total	None	1 to 25 percent	26 to 50 percent	51 to 75 percent	76 percent and over
Places, 5,000 population or over:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Milwaukee	100	72	12	7	7	2
40,000–99,999	100	76	8	5	11	0
20,000–39,999	100	60	13	13	11	3
10,000–19,999	100	67	9	12	12	0
5,000–9,999	100	57	14	12	14	3
Total	100	65	12	10	11	2
Places less than 5,000 population:						
A—Northern cut-over	100	47	14	22	14	3
B—North-central dairy	100	55	19	14	12	0
C—Northwest livestock and dairy	100	39	16	22	17	6
D—Southwest livestock and dairy	100	34	15	29	19	3
E—Central general farming	100	31	23	31	14	1
F—Northeast dairy	100	48	21	19	10	2
G—Southeast dairy	100	50	25	16	8	1
Total	100	43	19	22	13	3
Total State	100	48	17	20	13	2

CHANGES IN VOLUME AND STATUS OF DEPOSITS

The force of the strains that bore upon Wisconsin banks and their communities during the depression was reflected by changes in the volume and status of bank deposits. Figure 1 shows such changes for places of less than 5,000 population in various sections of the State. The data cover the deposits of all banks that were in operation at the end of 1929 regardless of whether such banks remained open or were closed, and of all banks later organized. The only deposit liabilities omitted are those of banks that closed before 1930.

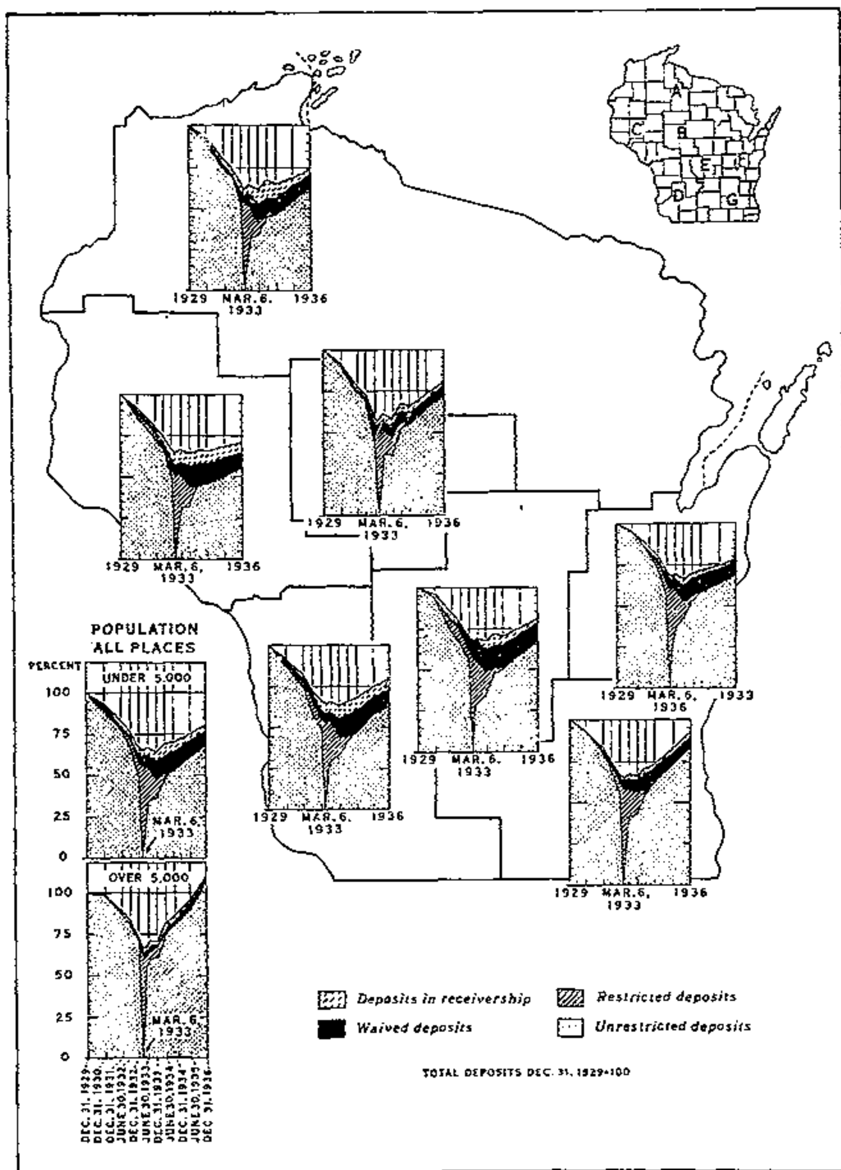

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FIGURE 1.—CHANGES IN VOLUME AND STATUS OF DEPOSITORS' CLAIMS AGAINST OPERATING BANKS, RECEIVERSHIPS, AND DEPOSITORS' TRUSTS IN WISCONSIN TOWNS OF LESS THAN 5,000 POPULATION, BY TYPE OF FARMING AREAS, 1930–36.

(Depositors' claims Dec. 31, 1929=100)

Not only did large amounts of depositors' claims against banks become immobilized during the depression by receiverships and waivers to depositors' trusts, but the total of their claims was greatly reduced. During 1933 and the first half of 1934, moreover, restrictions made large amounts of the deposits of operating banks unavailable to depositors. Difficulties among banks in places of small size were greatest in the northern cut-over, the western livestock and dairy, and the central general-farming sections of the State.

AGGREGATE DEPOSIT LIABILITIES

The deposit liabilities of Wisconsin banks declined rapidly from 1929 to the bank holiday in 1933. Four of the factors operating to bring about this decline were especially important. First, of course, was the depression, which reduced incomes and undermined values the world over. By reducing the demand and the basis for bank credit, the depression created conditions under which bank deposits were bound to decline unless a new basis for the extension of bank credit could be found.

Effects of the depression upon bank deposits were more pronounced in agricultural areas than in places of large size, owing to the presence of a second factor—unfavorable trade and financial balances growing out of the unequal incidence of the depression in various parts of the country. Comprehensive data on bank deposits show that there was a general movement of funds from agricultural areas to the large financial and industrial centers during the depression. The adverse trade and financial balances of agriculture resulted mainly from the fact that large fixed charges and "sticky" prices on items entering into farm living and production costs prevented farmers from reducing their outlays in proportion to the decreases occurring in their incomes.

These factors caused Wisconsin banks to lose reserves to other parts of the country and precipitated a third factor in the decline of Wisconsin bank deposits—the liquidation of bank loans and investments. Though this factor resulted in part from voluntary payments by borrowers, it will be shown later that Wisconsin banks had to force collection of many loans and virtually cease making new loans in order to maintain their reserves at adequate levels. They also liquidated a substantial volume of securities and reduced new investments to low levels. By liquidating local loans and occasionally selling securities to local buyers, Wisconsin banks absorbed or extinguished a considerable volume of the dwindling supply of deposit funds that was flowing into the State; and in reducing their new loans and investments they, like banks in other parts of the country, failed to replenish the supply of deposit funds at a rate sufficient to maintain the deposit volume.

Many banks were unable to meet their liabilities or to protect their solvency in spite of such measures. The failure of these banks and the general knowledge that banks were in difficulty produced a fourth factor in the decline of deposits in Wisconsin banks—the withdrawal of funds for hoarding or for transfer to other points where it was felt the funds would be more secure. Judging by the trend of postal-savings deposits in Wisconsin, it does not appear that withdrawals were a large element in the decline of Wisconsin bank deposits until sometime in 1932.[5] Late in that year they became a dominant factor.

The depression declines of deposits were of varying magnitude in different places. By the end of 1932, the decline was only 21 percent in Milwaukee as compared with 26 percent in all places of more than 5,000 population, and 32 percent in places of less than 5,000 population. The greatest sectional decline in small places was 41 percent in the north-central dairy section (*B* fig. 1). By March 6, 1933, substantial additional declines had taken place, particularly in Milwaukee.

[5] AMERICAN BANKERS ASSOCIATION, COMMITTEE ON BANKING STUDIES. THE POSTAL SAVINGS SYSTEM OF THE UNITED STATES. PART XI. New York. 1937.

Except in Milwaukee, the claims of depositors remained throughout 1933 at about the depressed levels reached at the time of the bank holiday. But during the years 1934–36, there were substantial increases in deposit claims in all parts of the State, so that by the end of 1936 deposits had reached almost the same levels for the State, as a whole, as in 1929. The increases were not evenly distributed. In Milwaukee, deposit claims attained a level 21 percent above that of 1929; in cities of from 5,000 to 100,000 population they attained approximately the 1929 level; but in places of less than 5,000 the point reached was only 80 percent of the 1929 level. By sections, deposit claims in small places varied at the end of 1936 from 70 percent of the 1929 level in the northwest livestock and dairy section to 93 percent in the southeast dairy section. The increases were brought about mainly by increased income in Wisconsin, by a return of funds from hoarding, and by increased lending and investment on the part of banks.

UNPAID CLAIMS AGAINST DEPOSITORS' TRUSTS AND RECEIVERSHIPS

Through failures and reorganizations, including "readjustments and stabilizations," substantial amounts of the deposits of Wisconsin banks were waived to depositors' trusts or placed in the hands of receivers. Figure 1 shows the portions of the 1929 deposits that were represented by the outstanding claims of depositors against receiverships and depositors' trusts at various dates during the period 1930–36.

Such claims increased as the depression deepened and reached their highest levels at the end of 1933 or early in 1934. Thereafter they began to decline as a result of liquidations, reorganizations, and the closing out of trusts. Generally, the proportions of the 1929 deposits represented in 1933 and 1934 by claims against receiverships and depositors' trusts were greatest in small places and decreased in magnitude with increases in the size of the places in which the closed or reorganized banks were located. In places of less than 5,000 population, the proportions were largest in the northern cut-over, western dairy and livestock, and central general-farming sections, and smallest in the central and eastern dairy sections.

DEPOSITS OF OPERATING BANKS

In figure 1 the deposits of operating banks are divided into restricted and unrestricted deposits. The former include the deposits covered by temporary waivers of rights to withdraw and the restricted deposits of unlicensed banks, including banks in the hands of conservators. Unrestricted deposits presumably were available for use by depositors, though some were subject to notices of intention to withdraw.

The total deposits of operating banks declined during the depression as a result both of the economic factors already described and of the transfer of deposit claims to receiverships and depositors' trusts. In Milwaukee and other places of more than 10,000 population the deposits of operating banks reached their lowest levels at the time of the bank holiday. In places of smaller size, however, such deposits continued declining until the end of 1933. At their lowest point the deposits of operating banks in Milwaukee were about 37 percent below the levels of 1929. In smaller cities the declines were greater than in Milwaukee, and in places of less than 5,000 population they amounted

to as much as 56 percent in several sections. The later recovery of deposits in operating banks was much smaller for places of less than 5,000 population than for places of larger size, particularly Milwaukee.

Owing to restrictions, the deposits available for use by depositors were reduced during the depression to a much lower level than was indicated by the decline in the deposits of operating banks. Such deposits had been reduced, by the end of 1932, to only slightly more than half the volume available in 1929 in places of less than 5,000 population, and to only 70 percent in places of larger size. Six months later the available deposits in places of less than 5,000 population were only about one-third as great as in 1929, and there was little improvement by the end of 1933. But by the end of 1934, available deposits in such places had risen to 52 percent of the 1929 level—about the same as at the end of 1932—and by the end of 1936, to 68 percent. The recovery of available deposits after the bank holiday was much greater, however, in places of large size than in places of less than 5,000 population. Taken as a whole, the volume of available deposits in places of more than 5,000 population was 6 percent greater at the end of 1936 than at the end of 1929. In Milwaukee the increase was 20 percent.

Changes in Capital Structures of Banks

The banking difficulties that were responsible for the placing of large amounts of deposit claims in receiverships and depositors' trusts worked great hardship also upon the stockholders of banks and resulted in the disappearance of much banking capital. Wisconsin banks at the end of 1929 had total capital funds (consisting of capital stock, surplus, profits, and reserves) amounting to $139,219,000. By the end of 1936, the capital funds of operating banks amounted to only $110,560,000, a decline of 21 percent, despite the fact that, in the meantime, stockholders had contributed, and had been levied upon for, $28,710,000, while $40,870,000 of additional capital had been raised through sale of common and preferred stocks and debentures. Uncollected assessments, dividends, and losses, in excess of earnings, for the period were $92,967,000, an amount equal to two-thirds of the capital funds possessed by the banks at the end of 1929.[6]

RELATION OF CAPITAL CHANGES TO EXPERIENCE OF DEPOSITORS

In table 7 the banks in operation at the end of 1929 are classified according to the later experience of their depositors, and the capital changes occurring in each of the main classes of banks are shown separately.

[6] Data on capital changes given in this section may not be complete, particularly with respect to contributions made by, and assessments levied against, stockholders prior to 1933, but the omissions car scarcely be large.

TABLE 7.—*Changes in capital structure of Wisconsin banks, by class of bank, 1930–36* [1]

AMOUNT OF CAPITAL

Class of bank [2]	Capital funds, Dec. 31, 1929	Capital funds raised, 1930-36, through— Sales of common stock	Sales of preferred stock and debentures to the R. F. C.	Sales of preferred stock and debentures to local interests	Contributions and assessments against stockholders, 1930–36	Total assessments, contributions, and stock sales, 1930–36 [3]	Capital funds, Dec. 31, 1936	Losses, dividends, and uncollected assessments, 1930–36
	1,000 dol.	*1,000 dol.*	*1,000 dol.*	*1,000 dol.*	*1,000 dol.*	*1,000 dol.*	*1,000 dol.*	*1,000 dol.*
A	88,932	1,652	20,696	783	7,101	28,049	76,339	40,642
B	10,905	616	4,545	566	2,461	7,537	13,060	5,382
C	27,373	3,561	7,826	85	11,463	20,497	21,161	26,709
D	12,009	481	55	4	7,685	8,225	0	20,234
All banks	139,219	6,310	33,122	1,438	28,710	64,308	110,560	92,967

PERCENTAGE OF CAPITAL

Class of bank								
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
A	100	2	23	1	8	32	86	46
B	100	6	42	5	23	69	120	49
C	100	13	29	(4)	42	75	77	98
D	100	4	(4)	(4)	64	68	....	168
All banks	100	5	24	1	21	46	79	67

[1] Excludes capital raised by 8 newly organized banks.
[2] For description of classes of banks, see table 2.
[3] Excludes duplications and retirements of $5,272,000.
[4] Less than 0.5 percent.

In the cases of class A and class B banks, collections on assessments were practically equivalent to the assessments levied, and the capital funds acquired through assessments were used to retire losses or otherwise strengthen the banks. In the aggregate, class A banks raised new capital during the period 1930–36 equal to about 32 percent of the capital they had possessed in 1929. Since about 46 percent of their 1929 capital funds were exhausted through writing off losses, and to a lesser extent, through paying dividends in excess of earnings, their capital funds at the end of 1936 were only about 86 percent of the capital funds with which they had entered the depression. Class B banks, by raising new capital funds equal to about 69 percent of their 1929 capital funds, increased their capital funds during the period. For both classes of banks, the Reconstruction Finance Corporation was the principal source of new capital funds.

Assessments against the stockholders of class C banks were levied in most cases for the benefit of the creditors of depositors' trusts, and to the end of 1936 had been collected only in part. There is some justification, however, for considering that such assessments were paid in full and were used to strengthen the banks. In stabilizing banks, depositors usually waived rights to a sufficient volume of their claims to leave the capital stock of the stabilized banks undisturbed. This action on the part of depositors was taken in consideration of the stockholders being assessed for their benefit, and the trusts usually received an assignment of the stock to protect depositors' interests until stockholders paid their assessments. The waiving depositors may therefore be regarded as having advanced the capital for which stockholders were assessed.

Whatever view may be taken toward this matter, it is obvious that much new capital was supplied by the R. F. C. to class C banks, and that the stockholders of such banks were heavily assessed. Despite

these additions, however, the capital funds of class C banks were reduced substantially during the period 1930–36. The losses for which stockholders were made responsible, and the dividends in excess of earnings paid by such banks, were approximately equal to the total capital funds possessed by the banks at the beginning of the depression.

Assessments against the stockholders of class D banks were seldom paid in full. Moreover, most of such assessments as were paid went to receivers or other liquidating agents for the benefit of creditors. Little new capital was raised by class D banks before their failure, but counting the funds invested in such banks at the beginning of the depression as a loss, and adding in the assessments for which stockholders were made liable, the total losses charged against their stockholders were much greater, relative to the 1929 capital funds, than for any other class of banks.

RELATION OF CAPITAL CHANGES TO SIZE OF PLACE AND AREA IN WHICH BANKS WERE LOCATED

The exhaustion of capital funds was relatively greater in places of less than 10,000 population than in places of larger size, and, in places of less than 5,000 population, greatest in the western livestock and dairy sections, and least in the southeastern dairy section (table 8). However, the new capital raised to support the banking structure was greatest in the places where capital exhaustion was most severe. At the end of 1936, banks in small places, despite their greater losses, were capitalized considerably more strongly, relative to the position at the end of 1929, than were banks in places of 5,000 population or more.

TABLE 8.—*Changes in capital structures of Wisconsin banks, by size of place and area, 1930–36* [1]

AMOUNT OF CAPITAL

Location of banks	Capital funds Dec. 31, 1929	Capital funds raised, 1930–36, through—			Contributions and assessments against stockholders 1930–36	Total assessments, contributions, and stock sales 1930–36 [2]	Capital funds Dec. 31, 1936	Losses, dividends, and uncollected assessments, 1930–36
		Sales of common stock	Sales of preferred stock and debentures to the R. F. C.	Sales of preferred stock and debentures to local interests				
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Places, 5,000 population or over:								
Milwaukee	45,467	362	14,020	25	3,379	16,796	36,459	25,804
40,000–99,999	17,120	825	2,745	102	3,027	6,047	12,230	10,937
20,000–39,999	20,874	1,135	3,070	46	3,085	6,635	14,524	12,985
10,000–19,999	5,047	368	790	57	936	1,906	4,137	2,816
5,000–9,999	9,921	746	2,105	284	3,452	6,030	8,237	7,714
Total	98,429	3,436	22,730	513	13,879	37,414	76,587	60,256
Places less than 5,000 population:								
A—Northern cut-over	4,074	204	915	117	1,501	2,073	3,486	3,261
B—North-central dairy	1,883	182	402	39	503	1,088	1,591	1,380
C—Northwest livestock and dairy	5,952	379	1,864	121	2,486	4,488	4,861	5,589
D—Southwest livestock and dairy	8,208	536	2,228	117	3,965	6,494	6,563	8,139
E—Central general farming	4,511	689	1,305	119	1,539	3,222	4,469	3,264
F—Northeast dairy	6,097	276	1,495	260	1,945	3,548	5,242	4,403
G—Southeast dairy	10,065	519	2,183	152	2,802	5,981	8,771	6,675
Total	40,790	2,874	10,392	925	14,831	26,894	34,973	32,711
Total State	139,219	6,310	33,122	1,438	28,710	64,308	110,560	92,967

See footnotes at end of table.

TABLE 8.—*Changes in capital structures of Wisconsin banks, by size of place and area, 1930–36* [1]—Continued

PERCENTAGES OF CAPITAL

Location of banks	Capital funds Dec. 31, 1929	Capital funds raised, 1930–36, through—			Contributions and assessments against stockholders 1930–36	Total assessments, contributions, and stock sales 1930–36 [2]	Capital funds Dec. 31, 1936	Losses, dividends, and uncollected assessments, 1930–36
		Sales of common stock	Sales of preferred stock and debentures to the R. F. C.	Sales of preferred stock and debentures to local interests				
Places, 5,000 population or over:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Milwaukee	100	1	31	(3)	7	37	80	57
40,000–99,999	100	5	16	1	18	35	71	64
20,000–39,999	100	5	15	(3)	15	32	70	62
10,000–19,999	100	7	16	1	19	38	82	56
5,000–9,999	100	8	21	3	35	61	83	78
Total	100	3	23	1	14	38	77	61
Places less than 5,000 population:								
A—Northern cut-over	100	7	22	3	37	66	86	80
B—North-central dairy	100	10	21	2	27	58	85	73
C—Northwest livestock and dairy	100	6	31	2	42	75	81	94
D—Southwest livestock and dairy	100	7	27	1	48	79	80	99
E—Central general farming	100	15	29	3	34	71	99	72
F—Northeast dairy	100	5	25	4	32	58	86	72
G—Southeast dairy	100	5	22	2	29	53	87	66
Total	100	7	25	2	36	66	86	80
Total State	100	5	24	1	21	46	79	67

[1] Excludes capital raised by 8 newly organized banks.
[2] Excludes duplications and retirements.
[3] Less than 0.5 of 1 percent.

CHARACTER AND PERFORMANCE OF COUNTRY-BANK LOANS

The analysis of loans covers the following points: (1) The principal types of loans made by country banks in Wisconsin and the liquidation and loss experience of the banks with such loans during the depression, (2) the changing proportions in which loans of various types were held by such banks from 1929 to 1935, and (3) the procedures of bank examiners in classifying the loans of the Wisconsin banks.

Most of the data on the first two points were obtained from the 17 country banks selected for special study. The loan classifications shown for these banks are based on samples of individual lines of credit involving amounts ranging from 36 to 80 percent of the banks' total outstanding loans.

METHODS OF CLASSIFYING LOANS

A considerable part of the data needed for analyzing individual lines of credit was available in easily accessible form.[7] Debits and credits to the loan accounts of individual borrowers, together with the net

[7] The term "line of credit" is used to denote the aggregate indebtedness of a borrower to a bank. Lines of credit often comprised several loans.

loan balances, were carried in the liability ledgers of banks and in the records of bank receivers. On the financial circumstances of borrowers there were often financial statements, and much information could be obtained from collateral records, examiners' comments on the position of borrowers, and explanations by bankers or the receivers of banks. There were written records of charge-offs to profits and of transfers to depositors' trusts. Data obtained on the purposes of loans and the means by which loans had been liquidated, however, were chiefly in the form of statements by bankers or receivers.

In many cases bankers could describe accurately the uses that had been made of loans, but frequently they either did not have this information, or were able to give it only in very broad terms such as "for operations and equipment," "for investments," and "to meet expenses." Information given as to the means by which loans were liquidated suffered from these same defects, but on the whole was more specific.

These defects are not so critical as they may appear at first sight. The tendency of a line of credit to increase or decrease; the nature of increases or decreases in amount, whether periodic or sporadic and whether large or small in relation to the resources of the borrower; the occupation of the borrower; and changes that occur in his financial condition; all are factors that reflect the uses made of loans and the means by which they are liquidated. Loans of various types tend to develop characteristic patterns, so that generally they may be identified with little difficulty. It has been necessary, however, to use broad categories in describing the loans, since the specific items purchased with a loan or the specific items sold to repay it were often unknown.

One of the loan classifications requires brief explanation; i. e., that showing the "basis for quick liquidation." Each borrower's financial position was analyzed as of every midyear date, 1929–35, to determine: (1) The amount that the borrower apparently would be able to pay on his line of credit within a period of 1 year from current income. (2) Of the remaining balance of the loan, the amount that he apparently could pay within a short period from the liquidation or refinancing of working capital, personal property, securities, or other intangibles. The liquidating value of livestock was arbitrarily set at 80 percent of the value listed in financial statements, examiners' reports, or other sources; that of most other personal property and intangibles was set at 50 percent. (3) Of the remaining balance, the amount that he apparently could pay within a short period from the sale or refinancing of real estate and other fixed assets. The liquidating value of such assets was arbitrarily set at 50 percent of the listed value. (4) The amount of the borrower's line of credit that appeared not to be payable within a short period from current income or from the liquidating values assigned to the borrower's property.

The liquidating values assigned in this classification to various forms of property are intended to approximate the values that ordinarily could be realized if an individual borrower were required to liquidate his indebtedness in a short period. They are not to be taken either as the amounts that borrowers normally would pay on their loans within a short period or as the amounts that could be realized if large numbers of banks required their borrowers to liquidate properties of various categories within a short period.

Principal Types of Loans Made

Before analyzing the banks' loan portfolios it is desirable to characterize several types of loans that were made in large volume by the banks. These may be described as seasonal-operating loans, personal loans, nonseasonal working-capital loans, and fixed-capital loans.

SEASONAL-OPERATING AND PERSONAL LOANS

Graphs of several seasonal-operating loans are shown in figure 2. Such loans are used by farmers mainly to buy feed, seed, and feeder stock, to pay for labor, and to meet family-living costs and other general expenses. They are used by business firms and manufacturing

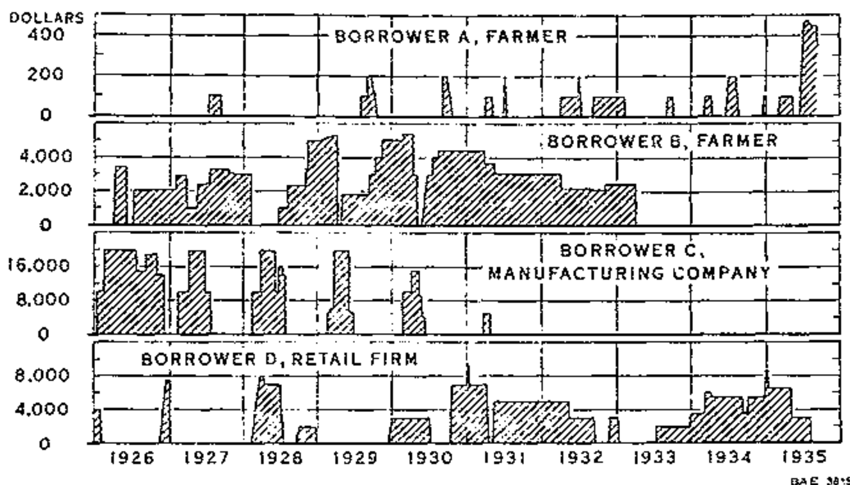

Figure 2.—Seasonal-Operating Loans to Farmers and Business Firms 1926-35.

Seasonal-operating loans usually are paid within a short period, as they represent advances of funds for current expenses that are to be paid from borrowers' gross incomes. Sometimes, however, they become frozen as a result of unprofitable operation or a decline in the volume of sales.

concerns to meet pay rolls, to purchase merchandise or raw materials, and to carry seasonal increases in the inventories and accounts receivable. Loans for these purposes generally remain outstanding only a short time, but borrowers require new seasonal loans at frequent intervals.

A second type of loan made in large numbers by Wisconsin banks is the personal loan. Loans of this type generally are used to meet the expenses of family living, health and recreation, to purchase automobiles, radios, and household furnishings or equipment, and to refinance debts for such purposes. Usually they are of small size and remain outstanding only a short period. Graphs of the personal loans made or held by the banks during the period covered by this study differ little from graphs of seasonal-operating loans, hence the latter will serve to illustrate both types.

Country banks in Wisconsin have had a very favorable experience with loans used for seasonal-operating and personal purposes. Of the

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individual lines of credit outstanding on June 30, 1929, that were classified as having been used in their entirety for such purposes, about 85 percent were liquidated within 1 year. By June 30, 1935, liquidation was almost complete, and losses, both realized and anticipated, amounted to less than 1 percent. Of the loans for these purposes outstanding on June 30, 1932, about 70 percent were paid within 1 year despite the unfavorable conditions existing at this time. By June 30, 1935, liquidation amounted to about 90 percent and losses to about 3 percent. Payments were made almost entirely from borrowers' current incomes.

The highly liquid character of seasonal-operating and personal loans frequently leads to confusion on the question of their advantages to commercial banks. Many appear to regard their liquidity as an advantage merely from the standpoint of meeting deposit shrinkages. Their usefulness for this purpose cannot be denied but it should be emphasized that if banks were to use the funds collected from such loans to meet deposit withdrawals rather than to make the new operating and personal loans needed in their communities, they would fail to serve adequately as credit institutions. For banks that strive to serve both borrowers and depositors adequately the advantage from such loans arises from the fact that they may be adjusted quickly and easily to the changing circumstances and needs of borrowers. They permit credits to be shifted from borrower to borrower as relative needs may change, they are easily protected against loss, and their total volume often may be reduced in times of depression without harm to borrowers as the need for operating loans becomes smaller.

NONSEASONAL WORKING-CAPITAL LOANS

Loans of a type that bear little resemblance to seasonal-operating and personal loans are illustrated in figure 3. Although portions of these loans may have been used for seasonal operations, their main use was to provide borrowers with funds needed for considerable periods of time. In the case of farmers, the funds were used principally to acquire or maintain work stock, dairy or breeder herds, machinery, and equipment. Business firms and manufacturing concerns used their loans chiefly to acquire raw materials and to carry finished stocks and receivables.

It is seldom convenient for farmers to pay nonseasonal working-capital loans quickly except as the required amounts may be borrowed elsewhere. Actual liquidation of such debts in a short time usually would necessitate the sale of livestock and equipment that are indispensable in farming. Normally the nonseasonal working-capital loans to farmers, though represented by short-term notes, have a low rate of liquidation and must be renewed frequently, since the normal source of payment is the annual savings of farmers.

Nonseasonal working-capital loans to business firms resemble those to farmers in that both, through frequent renewal, characteristically remain outstanding for long periods. Despite this resemblance, loans to business firms are inherently the more liquid of the two types, particularly in times of declining prices and business activity.

At such times, there is a general tendency for business firms to reduce purchases of inventory and to allow inventory stocks and ac-

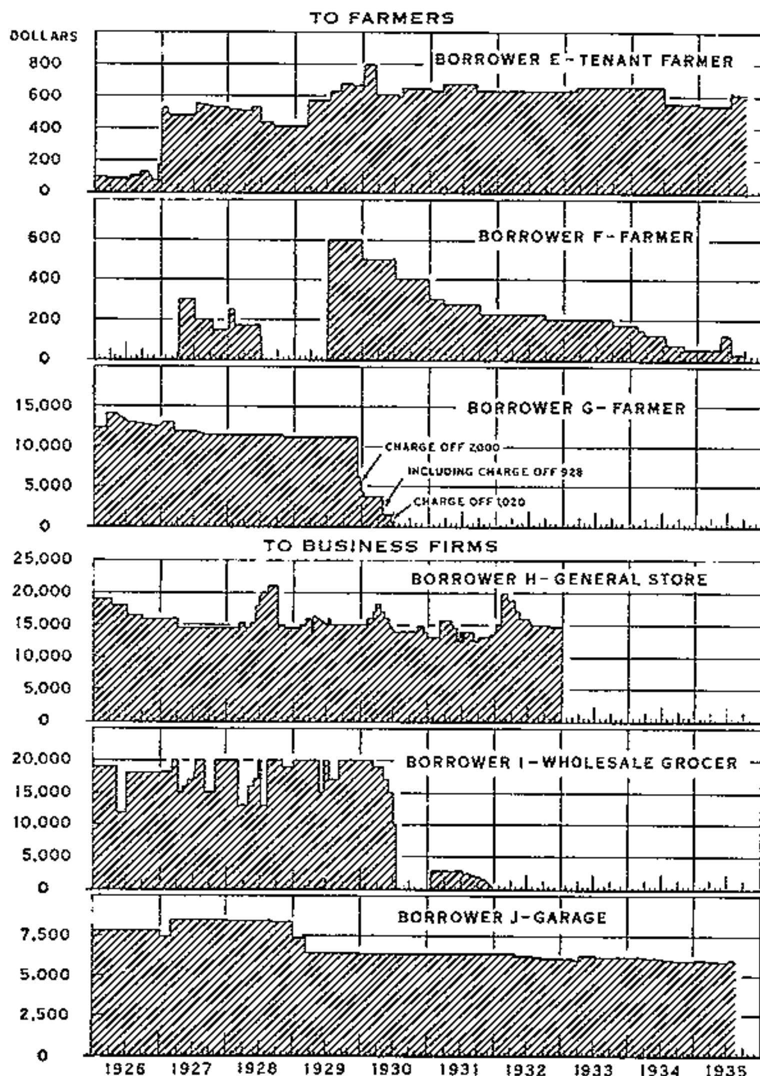

FIGURE 3.—NONSEASONAL WORKING-CAPITAL LOANS TO FARMERS AND TO BUSINESS FIRMS, 1926-35.

Nonseasonal working-capital loans, whether to farmers or others, normally have low rates of liquidation. Their volume tends to fluctuate with borrowers' needs for livestock, equipment, raw materials and merchandise, and with the volume of receivables carried by borrowers. Actual payment by borrowers usually depends on the annual rate of savings or the liquidation of inventories and receivables, but creditors sometimes are paid by refinancing such loans.

counts receivable to decline. Through these measures, the operating expenses and working-capital requirements of business firms are pared, and their needs for operating and working-capital credits are reduced. A considerable part of the credit which they use in times of more active business may be liquidated during periods of depression without inducing a greater reduction in business volume than would occur without any credit liquidation. Farmers also make some adjustments of this character but their working capital does not turn over very rapidly and their need for working-capital credits declines but slowly at times when prices are falling. The markets would be flooded with livestock if attempts were made to liquidate within a short period any considerable part of the working-capital credits used by farmers.

The low normal rates of liquidation on nonseasonal working-capital loans are reflected by data obtained on individual lines of credit. Of the loans of $500 or more outstanding June 30, 1929, only 10 percent of those to farmers and 29 percent of those to others were paid within 1 year. These percentages are in strong contrast to the approximately 85 percent collected on seasonal-operating and personal loans. By June 30, 1935, collections amounted to 64 percent on loans to farmers and 73 percent on loans to others. Realized and anticipated losses were approximately 12 percent in both cases. Only 17 percent of the loans to farmers and 24 percent of the loans to others were collected from borrowers' incomes. The major part of the collections resulted from the liquidation of borrowers' assets and from refinancing. For nonseasonal working-capital loans of less than $500 the liquidation record was much superior to that for loans of $500 and more, but it was substantially poorer than that for seasonal-operating and personal loans.

FIXED-CAPITAL LOANS

Fixed-capital loans are used by farmers mainly to purchase or improve real estate. They are used by business and manufacturing concerns for the same purposes and to provide machinery, fixtures, and equipment. Loans for the purchase of homes may be considered fixed-capital loans. Figure 4 gives examples of fixed-capital loans to farmers.

Borrower M's loan had an unfortunately large number of counterparts in Wisconsin banks. In 1918 borrower M owned a quarter section of land valued at $20,000 and chattels valued at about $5,000, all clear of liens. During the land boom he bought an additional farm of 120 acres, paying a price so high and assuming a debt burden so great that by 1926 both farms and the chattels were covered by mortgages to the bank aggregating more than $23,000. Sale of the chattels liquidated much back interest and a small part of the loan in 1928, but there was no further liquidation until the bank took over both farms in 1932. By that time nearly $6,000 had been written off the loan to loss. In 1929 the bank examiner placed a value of $24,000 on the two farms, and listed the bank's mortgage for $21,000 as slow.

Immediately after acquiring the farms in 1932, the bank sold them to a tenant farmer (borrower N) whose chattels already were mortgaged heavily and who apparently felt there was small risk in assum-

ing an additional debt burden. He bought the farms for $16,500, the amount at which the mortgage had been carried on the bank's books just before the farms were acquired. Examiners' comments in later years reveal the position of the loan. In 1933 the farms were valued at $22,000, and the $16,600 owed by the new borrower was classified as slow. By 1935 the farms were valued at $12,000 and the loan was listed as $10,600 slow and $5,000 loss.

Fixed-capital loans usually are so large in relation to borrowers' assets and involve such heavy carrying charges in relation to borrowers' incomes that their normal rates of liquidation are very low. Even in the best of times, quick liquidation of such loans depends primarily on the possibility of refinancing them for it is seldom possible to dispose of the underlying farm, home, or business property for cash. On the individual lines of credit for fixed-capital purposes

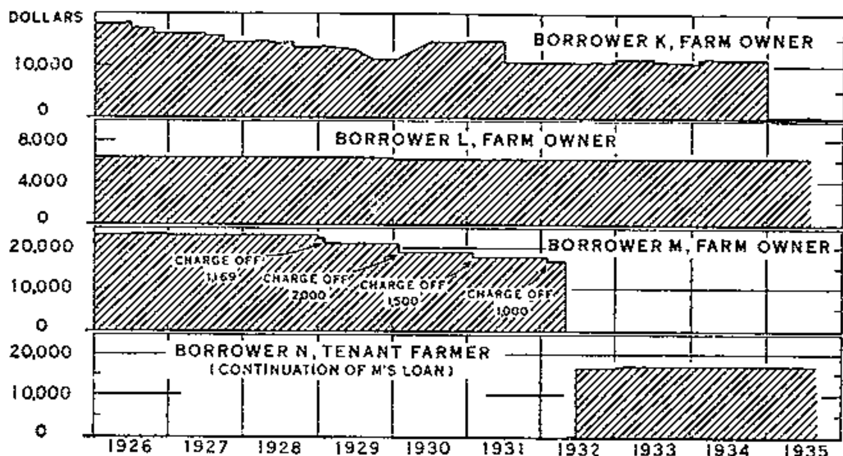

FIGURE 4.—FIXED-CAPITAL LOANS TO FARMERS, 1926–35.

Fixed-capital loans to farmers normally have low rates of liquidation. They are used mainly to buy, improve, and hold real estate. Actual payment by borrowers usually depends on the annual rate of savings or sale of the fixed assets owned by the borrower. Creditors often are paid by refinancing such loans.

that were studied, payments within 1 year on loans to farmers outstanding on June 30, 1929 amounted to 11 percent, only 5 percent being paid from borrowers' incomes. On loans to others payments within 1 year also amounted to 11 percent, but only 4 percent was paid from borrowers' incomes.

In the case of both loans to farmers and loans to others, liquidation of fixed-capital loans during the depression involved severe hardship for borrowers, who had to dispose of their properties in a falling market, and brought substantial losses to banks, which often had to compromise their claims in order to facilitate refinancing of their borrowers' indebtedness. On their fixed-capital loans to farmers outstanding June 30, 1929, the banks were able to collect about 61 percent by June 30, 1935. Collections from borrowers' incomes amounted to only 6 percent, whereas collections from liquidation of borrowers' assets amounted to 19 percent and those from refinancing

to 29 percent. The banks lost about 16 percent of the amount of these loans and liquidated 7 percent by taking over borrowers' properties. The record for fixed-capital loans to others was slightly better than that for loans to farmers, but also showed substantial losses to banks and the liquidation and refinancing of much property by borrowers.

FACTORS AFFECTING COLLECTION EXPERIENCE WITH LOANS

Table 9 shows the collection experience of the banks with 781 loans to farmers and to others that were outstanding June 30, 1929, the loans being arranged in size groups. Here is revealed a strongly marked tendency for collection experience to vary with the sizes of loans, small loans having much better records than large loans. Generally, with increases in the size of loans, smaller percentages were paid from borrowers' incomes, larger percentages were refinanced or liquidated from the proceeds of borrowers' properties, and larger percentages became worthless.

In one sense these relationships merely show that borrowers, as a rule, could pay small debts more easily than large ones. It is commonly recognized, however, that loans of a given size may represent large debts to some borrowers and small debts to others. Moreover, the data show that the largest size loans to nonfarm borrowers were more liquid than several classes of smaller loans; and that loans to farmers in almost every size-class had less satisfactory liquidation records than did loans to nonfarm borrowers. Obviously the significance of size of loans as a factor related to collection experience arose from the connection of size with other, more fundamental, factors.

Two of the more fundamental factors that influenced the liquidation records of loans were the purposes for which the loans had been used and the means at the disposal of borrowers for liquidating their loans (tables 10 and 11). The superiority of small loans over large loans rested, to a large extent, on the fact that greater proportions of the small loans had been used for current-operating or personal purposes and greater proportions appeared to be payable from borrowers' current incomes. As a rule, all but small portions of the large loans had been used for capital purposes, and depended for quick liquidation on the sale or refinancing of borrowers' capital assets.

TABLE 9.—*Percentage collections from loans to farmers and others outstanding June 30, 1929, by size of loan*

Size of loan	Loans	Cash collections within 1 year, June 30, 1929, to June 30, 1930, from—		Liquidation record for 6 years, June 30, 1929, to June 30, 1935					
				Cash collections from—			Amount satisfied by taking over borrowers' property	Net amount charged off and anticipated further losses	Amount outstanding June 30, 1935, and considered good
		Borrowers' incomes	Liquidation of assets by borrowers	Borrowers' incomes	Liquidation of assets by borrowers	Refinancing			
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than $500	127	59	2	73	11	5	------	2	9
$500-$999	35	30	1	53	15	14	------	2	16
$1,000-$1,499	31	21	7	26	23	23	------	10	18
$1,500-$2,499	40	15	7	20	20	21	1	8	30
$2,500-$4,999	72	6	5	10	19	23	7	18	23
$5,000-$9,999	93	3	4	4	14	30	6	24	22
$10,000-$19,999	33	2	2	3	5	19	16	25	32
$20,000 and over	8	3	4	4	17	18	20	29	12
Loans to others:									
Less than $500	88	68	4	81	7	4	------	2	6
$500-$999	18	46	5	66	13	5	4	1	11
$1,000-$1,499	12	43	7	56	9	18	------	7	10
$1,500-$2,499	31	32	16	40	24	13		6	17
$2,500-$4,999	60	15	9	23	31	23	3	12	18
$5,000-$9,999	75	17	8	22	23	18	2	11	24
$10,000-$19,999	46	5	10	13	27	10	9	13	28
$20,000 and over	12	40	3	41	18	8	8	13	12

TABLE 10.—*Purpose of loans to farmers and others outstanding June 30, 1929, by size of loan*

Size of loan	Loans	Loans used for—				
		Seasonal or temporary operating purposes [1]	Purchase or retention of nonseasonal working capital and security investments [2]	Purchase of fixed capital and refinancing debts [3]	Purchase of real estate which was owned by lending bank [4]	Unclassified purposes
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than $500	127	48	39	11	------	2
$500-$999	35	34	48	16	------	2
$1,000-$1,499	31	14	42	41	------	3
$1,500-$2,499	40	10	48	35	2	6
$2,500-$4,999	72	3	31	57	4	5
$5,000-$9,999	93	3	17	75	5	------
$10,000-$19,999	33	1	12	75	12	------
$20,000 and over	8	3	16	69	12	------
Loans to others:						
Less than $500	88	53	32	9	------	6
$500-$999	18	37	38	20	------	5
$1,000-$1,499	12	34	25	25	8	8
$1,500-$2,499	31	20	38	33	------	------
$2,500-$4,999	60	16	38	44	------	2
$5,000-$9,999	75	17	32	47	1	3
$10,000-$19,999	46	11	47	40	2	------
$20,000 and over	12	39	26	27	8	------

[1] Includes temporary loans for personal uses.
[2] Includes portions of personal loans and operating loans that had remained unpaid for more than 1 year.
[3] Mainly loans to purchase or refinance real estate.
[4] Includes real estate contracts.

TABLE 11.—*Bases for quick liquidation of loans to farmers and others outstanding June 30, 1929, by size of loan*

Size of loan	Loans	Loans appearing to be payable within 1 year from borrowers' current incomes [1]	Loans depending for liquidation within 1 year upon sale or refinancing of—			Loans unclassified
			Nonseasonal working capital and securities [2]	Real estate and other fixed assets [3]	"Thin equities" in nonseasonal working capital, securities, real estate, and other fixed assets [4]	
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than $500	127	71	22	3	3	1
$500–$999	35	35	54	4	4	3
$1,000–$1,499	31	22	57	10	11	----------
$1,500–$2,499	40	16	59	18	5	2
$2,500–$4,999	72	8	45	31	16	----------
$5,000–$9,999	93	4	27	49	18	2
$10,000–$19,999	33	3	20	56	21	----------
$20,000 and over	8	4	21	43	32	----------
Loans to others:						
Less than $500	88	82	9	4	5	0
$500–$999	18	47	33	14	----------	6
$1,000–$1,499	12	50	16	11	15	8
$1,500–$2,499	31	34	37	23	3	3
$2,500–$4,999	60	19	38	23	12	8
$5,000–$9,999	75	18	40	28	6	6
$10,000–$19,999	46	12	42	33	12	1
$20,000 and over	12	44	20	14	13	----------

[1] Includes normal application of savings as well as operating income.
[2] Limits generally are 50 percent of value of current assets of business firms and local securities, 75 percent of value of listed securities, and 50 percent of value of farm chattels.
[3] Limit is 50 percent of value of fixed capital.
[4] Includes portions of loans that do not fall within preceding classes.

The superiority of nonfarm loans over loans to farmers is explained, partly at least, by the same factors. Farm loans had been used more largely for capital purposes, particularly fixed-capital purposes, than had nonfarm loans, and rested to a greater extent on "thin equities" in borrowers' assets than did nonfarm loans. The data at hand do not reveal fully the reasons for these differences but it was observed that farm owners had relatively greater need for fixed capital than most other borrowers and that the larger commercial and industrial borrowers usually were able to raise their fixed capital through the sale of stock, a practice not open to farmers or many of the smaller business firms.

CHARACTER OF LOANS HELD

Attention is now turned to the proportions in which various kinds of loans were held by Wisconsin country banks before and during the depression.

ORIGIN DATES OF LOANS

The first type of classification used in describing the loans is based on the dates when the loans originated. Figures 5 and 6 show midyear classifications, covering the period 1929–35, of the outstanding loans of several banks according to the periods during which the loans originated. Banks A and C survived the depression, whereas banks N and P were closed and placed in liquidation.

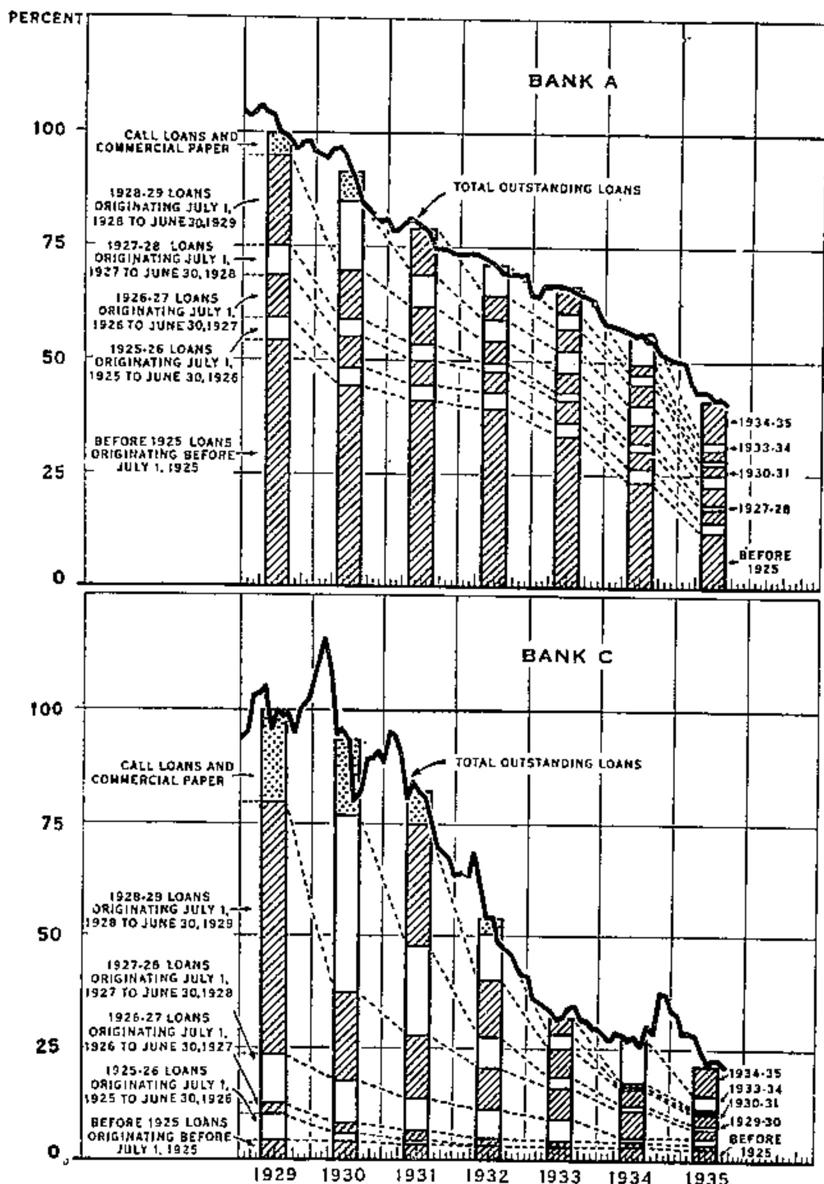

FIGURE 5.—ORIGIN DATES OF LOANS HELD BY TWO SURVIVING COUNTRY BANKS, 1929–35.

(Loans outstanding June 30, 1929=100)

At the beginning of the depression most of bank C's loans were of recent origin. It also held a considerable amount of call loans. Bank A held only a small amount of call loans and most of its local loans had originated before 1925. Bank C was able to liquidate loans during the depression much more rapidly than A. Both banks appear to have made more new loans during 1933–34 and 1934–35 than during 1932–33, despite the continued declines in their outstanding loans.

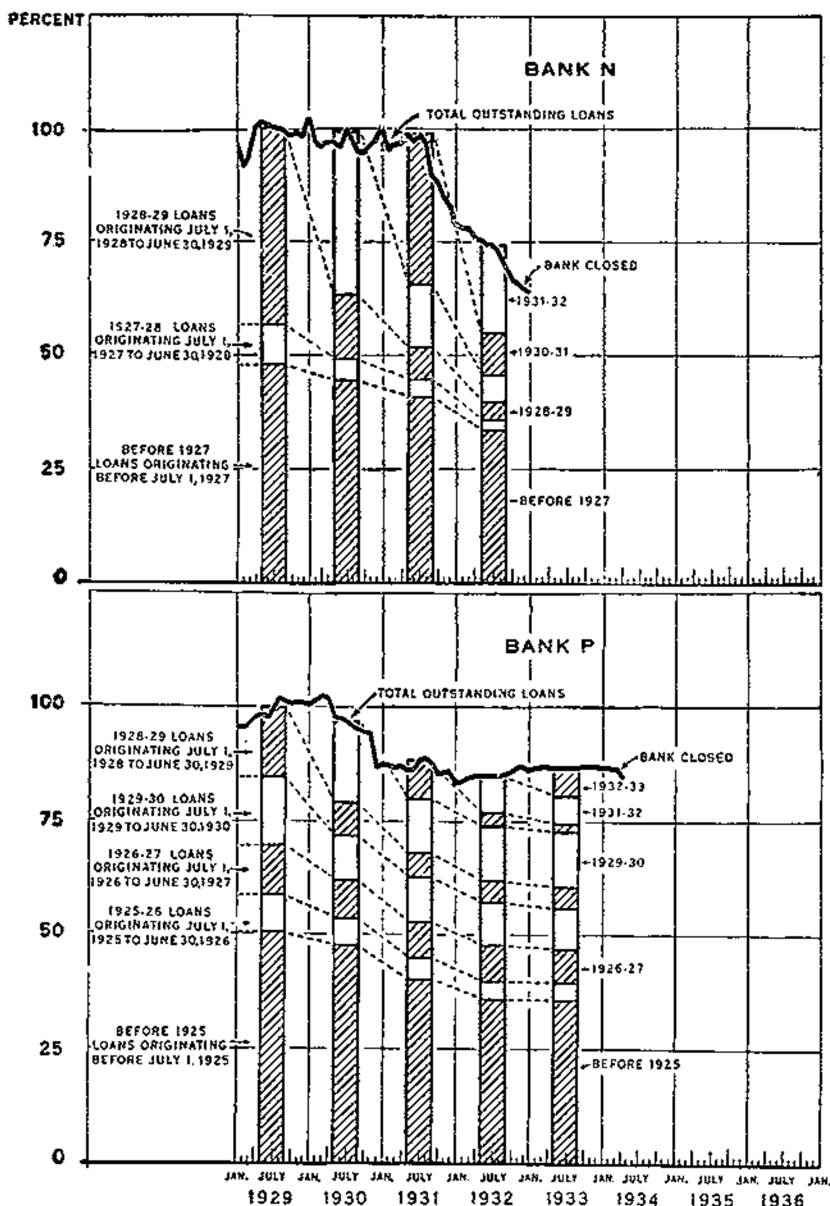

FIGURE 6.—ORIGIN DATES OF LOANS HELD BY TWO CLOSED COUNTRY BANKS, 1929 TO DATE OF CLOSING.

(Loans outstanding June 30, 1929=100)

Most of N's loans were of comparatively recent origin at the beginning of the depression, whereas bank P's loans consisted mainly of advances that had originated before 1925. Bank N was able to continue lending in large volume until 1931–32 when drastic shrinkages of deposits, accentuated by a run, forced it to curtail new loans. Bank P's annual volume of lending was small and its loans liquidated very slowly. A restriction of payments to depositors saved bank P from failure in 1932.

The classifications show not only the relative amounts of the loans that originated during specified periods,[5] but also the relative amounts of the loans that were liquidated within various periods. In some respects the latter information is the more instructive. As a general rule, loans that liquidate rapidly have been used to finance the current operations of borrowers, whereas loans that liquidate slowly have been used for working-capital or fixed-capital purposes. Moreover, banks having loans that liquidate rapidly usually find it much easier to adjust their positions to changing conditions than do banks having loans that liquidate more slowly.

There were notable differences among the banks selected for special study. For example, bank C (surviving) had an unusually high turn-over, and bank P (closed) an unusually low turn-over, of loans in 1929 and the early years of the depression. But the points of similarity were more striking than the differences. On June 30, 1929, only from 20 to 30 percent of the loans of most of the banks were less than 1 year old, from 30 to 50 percent were more than 4 years old, and the remaining portions were of intermediate ages (table 12). It is apparent that the banks were engaged before the depression mainly in financing the intermediate- and long-term credit requirements of their communities and that purely short-term financing absorbed a relatively small proportion of their loan funds. In this respect there was little if any difference between the policies of banks that later were to fail and those of banks that survived the depression. Exceptionally high, and exceptionally low, rates of loan turn-over may be found in both groups of banks.

In another respect the banks were strikingly similar. All made drastic reductions in their volumes of lending during the depression. The extent of the decline in lending is approximated, although not precisely measured, by the decreases during the depression in the outstanding loans that were less than 12 months old. Such loans in most of the banks were from 50 to 80 percent lower on June 30, 1932, than on June 30, 1929, and by June 30, 1933, many banks had virtually ceased lending. Decreases in new loans were much greater than decreases in total outstanding loans.

[5] Since borrowers' notes frequently represent renewals of loans rather than original advances, the dates of origin assigned to many loans run much farther back than the dates entered on the notes representing these loans.

TABLE 12.—*Distribution of loans held on June 30, 1929, by 17 selected banks, by periods outstanding*

Group and bank	Commercial paper and call loans	Local loans outstanding —						Total loans
		Less than 1 year	1.0 to 1.9 years	2.0 to 2.9 years	3.0 to 3.9 years	4 years and more	From 1 to 4 years or more	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1: [1]								
Bank A	5	20	6	10	5	54	----	100
Bank B	0	32	----	----	----	----	68	100
Bank C	20	67	10	3	6	4	----	100
Bank D	(2)	(2)	(2)	(2)	(2)	(2)	(2)	----
Group 2: [3]								
Bank E	0	37	25	4	4	30	----	100
Bank F	3	22	15	6	16	38	----	100
Bank G	3	26	13	10	7	41	----	100
Bank H	0	27	17	32	2	22	----	100
Bank I	0	37	----	----	----	----	63	100
Group 3: [4]								
Bank J	0	26	20	6	6	42	----	100
Bank K	3	26	13	11	5	42	----	100
Group 4: [5]								
Bank L	0	29	24	6	12	29	----	100
Bank M	(2)	(2)	(2)	(2)	(2)	(2)	(2)	----
Bank N	0	43	9	----	----	----	[6] 48	100
Bank O	0	25	11	12	19	33	----	100
Bank P	0	15	15	11	8	51	----	100
Bank Q	0	32	----	----	----	----	68	100

[1] Banks that survived the depression without establishing depositors' trusts.
[2] Not classified.
[3] Banks that survived the depression after establishing depositors' trusts.
[4] Banks that closed after establishing depositors' trusts.
[5] Banks that closed without establishing depositors' trusts.
[6] From 2 years to 4 years or more in this case.

The drastic decreases in bank lending that occurred during the depression were caused in part by deterioration of the financial circumstances of applicants for loans and probably to some extent by reduced requests for credit. But it hardly seems possible that these were the controlling factors. The most important causes, it is believed, were deposit shrinkages and the low rates at which the banks' loans normally were liquidated. In many banks comparatively small shrinkages of deposits would have been sufficient, even under favorable conditions, to absorb virtually all of the funds that could be obtained through collection of loans. As the depression developed, smaller and smaller amounts were collected from the loans, and larger and larger portions of the amounts collected from loans were absorbed in meeting deposit shrinkages. The amounts available for making new loans became progressively smaller. It was to relieve the credit stringency thus created that numerous governmental and Government-sponsored lending agencies were established.

PURPOSE OF LOANS

The nature of the loan services that were rendered by Wisconsin banks is indicated also by the purposes for which their loans were used (table 13). These data confirm the conclusion, reached from study of the origin dates of loans, that Wisconsin banks were engaged before the depression principally in financing the long- and intermediate-term credit requirements of their communities. Loans that appeared to have been used for seasonal-operating purposes but which had remained unpaid for more than a year, and loans used to purchase securities were of relatively small amount in most banks. Few of the

banks held call loans and commercial paper. There were no differences in the uses to which bank loans had been devoted that appeared so consistently among groups of banks as to afford an adequate explanation of their varying success in meeting the difficulties of the depression.

TABLE 13.—*Distribution of loans held by 17 selected banks on June 30, 1929, by purpose*

Group and bank [1]	Commercial paper and call loans	Local loans, by purpose									Total loans
		Seasonal-operating loans (new)	Personal loans	Nonseasonal working-capital loans	Seasonal-operating loans (carry-over)	Loans to buy securities	Loans to refinance debts	Fixed capital loans and real estate mortgages purchased	Loans arising from sale of banks' own real estate	Loans for unknown purposes	
Group 1:	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Bank A	5	0	5	31	3	(2)	6	41	0	0	100
Bank B	0	22	4	24	4	4	10	32	0	0	100
Bank C	20	20	4	12	1	9	17	17	0	0	100
Bank D	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	------
Group 2:											
Bank E	0	15	6	26	4	1	13	35	0	0	100
Bank F	3	12	4	22	4	(2)	19	36	0	0	100
Bank G	3	18	1	14	11	4	9	31	8	1	100
Bank H	0	23	3	11	3	0	1	37	22	(2)	100
Bank I	0	10	5	38	2	7	1	37	0	0	100
Group 3:											
Bank J	0	14	5	27	3	1	5	38	5	2	100
Bank K	3	8	2	23	2	3	6	53	0	0	100
Group 4:											
Bank L	0	10	3	32	3	0	1	48	3	0	100
Bank M	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	------
Bank N	0	29	3	26	4	4	0	31	3	0	100
Bank O	0	10	5	22	3	0	11	49	0	0	100
Bank P	0	8	4	17	7	5	2	22	4	31	100
Bank Q	0	11	10	30	2	0	11	36	0	0	100

[1] For description of groups of banks, see table 12.
[2] Less than 0.5 percent.
[3] Not classified.

As the banks' outstanding loans declined during the depression, the principal reductions, on a percentage basis, occurred in seasonal-operating loans and loans used for personal purposes. Such loans had an unusually high rate of liquidation even during the worst phases of the depression. Their volume could be maintained, consequently, only through the making of new loans. Though the new loans made by the banks consisted principally of advances for seasonal-operating and current-personal purposes, bank lending was so greatly reduced during the depression as to cause a drastic decline in the outstanding volume of such loans. Other types of loans, having considerably lower rates of liquidation, were reduced in volume much less than seasonal-operating and current-personal loans, despite the fact that new lending for capital purposes was reduced even more than was lending for current purposes.

With the need for liquidation of the total loan accounts diminishing or entirely disappearing in 1934 and 1935, at the same time that the refinancing of debts through the Farm Credit Administration and the Home Owners Loan Corporation was at its height, banks were able to increase their volume of current lending and consequently the

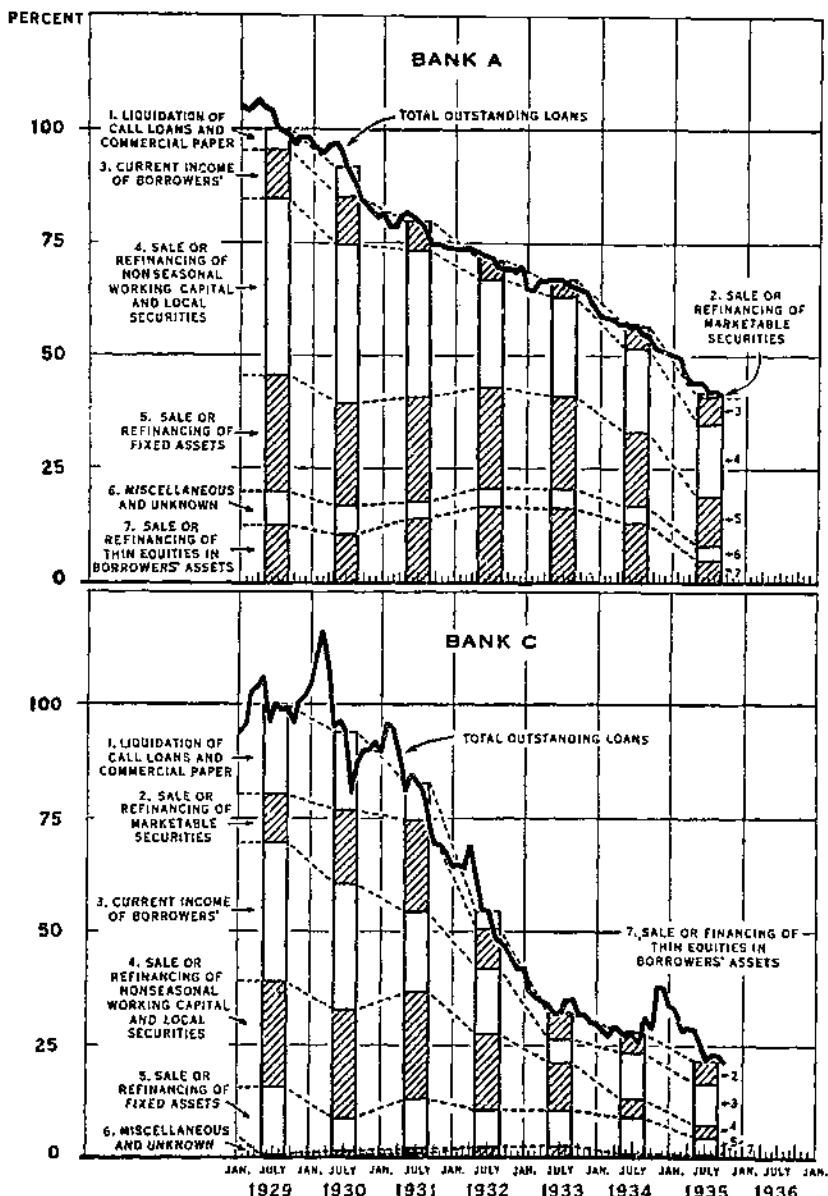

FIGURE 7.—BASIS FOR QUICK LIQUIDATION OF LOANS HELD BY TWO SURVIVING COUNTRY BANKS, 1929–35.

(Loans outstanding June 30, 1929 = 100)

Bank A's loans depended for quick liquidation principally on the liquidation or refinancing of borrowers' working and fixed capital. A substantial portion of its loans rested on thin equities in borrowers' assets at the beginning of the depression, and the volume of poorly protected loans increased until 1932. Virtually all of bank C's loans were well protected. The rapid liquidation obtained by this bank was due to its large holdings of call loans and local loans payable from the current incomes of borrowers and from the sale of marketable securities.

proportions of their total loans devoted to seasonal and personal uses. In some banks there were increases in these types of loans while liquidation or refinancing of the slower types continued at a rate sufficient to lower the total volume of loans.

BASIS FOR QUICK LIQUIDATION OF LOANS

The classification that bears most directly on the quality of the loans is that which shows their bases for quick liquidation (figures 7 and 8).

The classes of loans may be discussed under three headings: (1) Liquid or easily collectible loans, which include commercial paper, call loans, loans payable from current income, and those based on marketable securities; (2) good but normally slow loans, which include conservatively made loans based on nonseasonal working capital, local securities, and fixed capital; and (3) doubtful and worthless loans, which include those based on thin equities in borrowers' assets. Under conditions such as those existing in 1929 and 1930 most of the loans classed as liquid could be collected within a short time, or, if funds were needed immediately, they could be discounted or used as a basis for borrowing at other banks. Those classed as good but slow could be reduced by small amounts through collections and generally were considered to be refinanceable. Some could be discounted or used as a basis for borrowing at other banks. But those classed as doubtful or worthless usually were unliquid from every viewpoint.

Classifying the loans outstanding June 30, 1929, in this way, a conspicuously wide range appears between the loans of bank C, which were 62 percent liquid and 38 percent good but normally slow, and the loans of other banks, particularly banks L, O, and P (table 14). The loans of bank C were outstandingly different from those of other banks in all features covered by the analysis, hence this bank must be regarded as a special case not representative of the situation generally found among Wisconsin banks. The loans of banks that later failed were usually less liquid and less well protected than those of banks in the other groups. However, the loans of banks N and Q compared favorably with the loans of other banks, and the loans of bank A, which survived the depression without reorganization, were less liquid and of poorer quality than the loans of many banks that either failed or had to be reorganized.

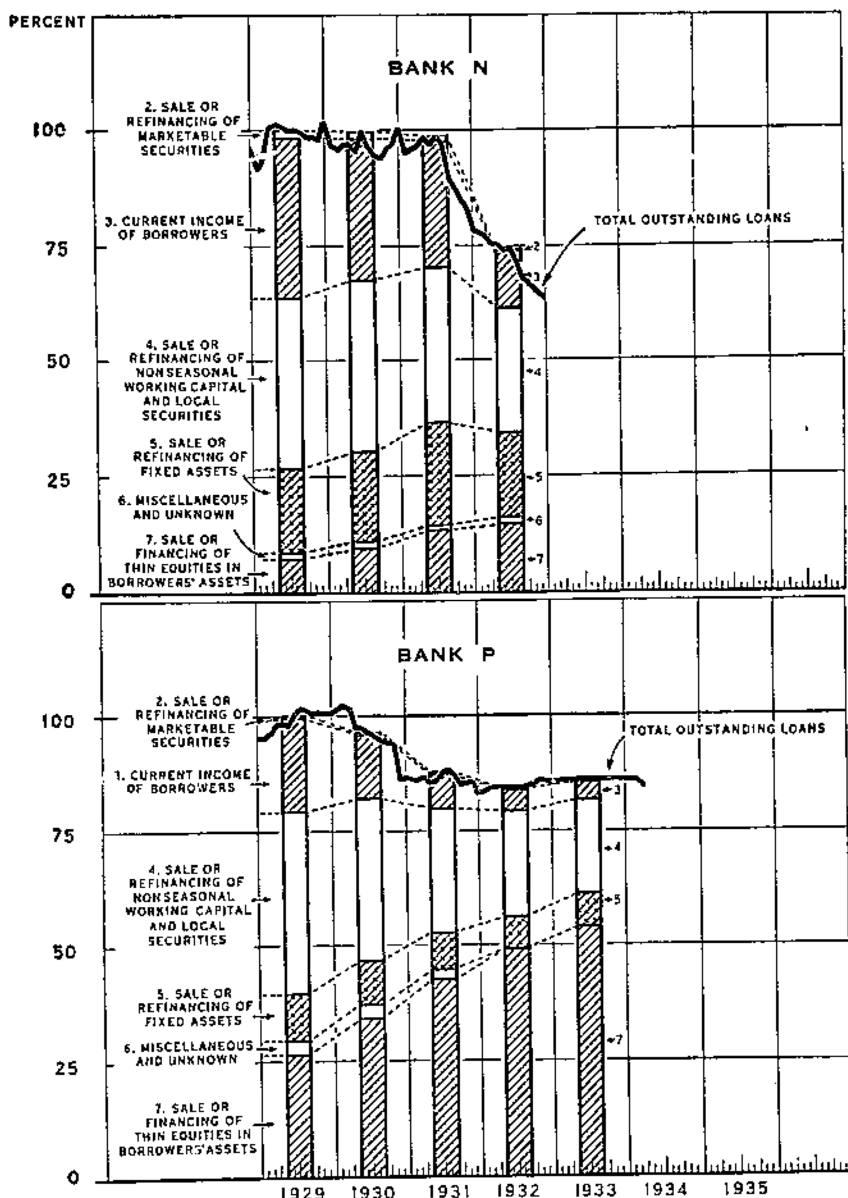

FIGURE 8.—BASIS FOR QUICK LIQUIDATION OF LOANS HELD BY TWO CLOSED COUNTRY BANKS, 1929 TO DATE OF CLOSING.

(Loans outstanding June 30, 1929=100)

More than a third of bank N's loans at the beginning of the depression were payable from the current incomes of borrowers and the volume of such loans was maintained at a high level by current lending until 1931–32. Only a small portion of its loans was poorly protected. Bank P, in contrast, entered the depression with nearly a third of its loans poorly protected. By 1934 its poorly protected loans (including losses) amounted to about two-thirds of its total loans.

TABLE 14.—*Distribution of loans held by 17 selected banks on June 30, 1929, 1932, and 1935, by quality*

Group and bank [1]	June 30, 1929			June 30, 1932			June 30, 1935		
	Liquid loans	Good but slow loans	Doubtful and worthless loans	Liquid loans	Good but slow loans	Doubtful and worthless loans	Liquid loans	Good but slow loans	Doubtful and worthless loans
Group 1:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Bank A	16	72	12	6	71	23	17	72	11
Bank B	21	75	4	12	74	14	16	68	16
Bank C	62	38	0	50	46	4	67	30	3
Bank D	(2)	(2)	(2)	23	69	8	27	69	4
Group 2:									
Bank E	15	80	5	9	81	10	(3)	(3)	(3)
Bank F	20	77	3	6	82	12	10	70	5
Bank G	33	53	14	15	61	24	15	72	13
Bank H	31	69	0	29	60	11	(3)	(3)	(3)
Bank I	23	72	5	14	74	12	(3)	(3)	(3)
Group 3:									
Bank J	23	60	17	9	57	34	(4)	(4)	(4)
Bank K	26	65	9	4	67	29	(4)	(4)	(4)
Group 4:									
Bank L	17	62	21	9	50	41	(4)	(4)	(4)
Bank M	(2)	(2)	(2)	6	66	28	(4)	(4)	(4)
Bank N	36	57	7	17	63	20	(4)	(4)	(4)
Bank O	13	67	20	3	59	38	(4)	(4)	(4)
Bank P	20	54	26	4	37	59	(4)	(4)	(4)
Bank Q	27	70	3	23	68	9	(4)	(4)	(4)

[1] For description of groups of banks, see table 12.
[2] Not classified.
[3] Mergers or the sale of loans to other banks made it impractical to classify the loans of these banks in 1935.
[4] Banks were closed.

The condition of bank loans had undergone great change by June 30, 1932. Liquid loans were reduced to a substantially smaller proportion than in 1929 in virtually all the banks, good but normally slow loans had increased in some of the banks and had decreased in others, and in all cases the doubtful and worthless loans had increased substantially. In the various banks, different reasons must be assigned for changes in the quality of the loans. Generally, however, the decreases in liquid loans resulted primarily from the liquidation of commercial paper and call loans and from the drastic curtailment in the volume of current lending. Increases in doubtful and worthless loans resulted mainly from declines in the value of borrowers' assets, which caused loans to be shifted from the good but normally slow class to the doubtful and worthless class. Moreover, some of the loans classified in earlier years as liquid had become slow, doubtful, or worthless by 1932.

The lowest point in the fortunes of the banks covered by this study was reached after June 30, 1932, only one bank failing and another one deferring payment of deposits before that date. After 1933 there was substantial improvement in the quality of the loans, resulting from the elimination of doubtful and worthless loans through the establishlishment of depositors' trusts and from the refinancing of good but slow assets through the F. C. A. and the H. O. L. C. Resumption of current lending on a larger scale increased the volume and the proportion of liquid loans.

From the more detailed classification shown in table 15 it is clear that most of the banks entered the depression with relatively small amounts of loans that could be liquidated without placing borrowers in an embarrassing position. Even if liberal allowance is made for

such amounts, it remains true that in most of the banks any very substantial liquidation of loans in a short period could be effected only by forcing the sale or refinancing of real and personal property that was needed by borrowers in their business or farming activities.

TABLE 15.—*Distribution of loans held by 17 selected banks on June 30, 1929, by basis for quick liquidation*

Group and bank [1]	Commercial paper and call loans	Local loans—								Total loans
		Payable from current income of borrowers [2]	Payable by liquidating or refinancing—						Unknown basis for quick liquidation	
			Conservative equities in [3]—				Thin equities in [4]—			
			Marketable securities	Nonseasonal working capital	Local securities	Fixed assets	Nonseasonal working capital	Fixed capital		
Group 1:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Bank A	5	11	0	37	2	25	2	10	8	100
Bank B	0	18	3	30	2	32	0	4	2	100
Bank C	20	31	11	17	6	15	0	0	(5)	100
Bank D	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	------
Group 2:										
Bank E	0	15	0	47	2	28	1	4	3	100
Bank F	3	17	(5)	34	1	40	0	3	2	100
Bank G	3	27	3	18	0	34	2	12	1	100
Bank H	0	31	0	24	6	39	0	0	0	100
Bank I	0	18	5	42	9	18	1	4	3	100
Group 3:										
Bank J	0	23	0	33	(5)	27	3	14	0	100
Bank K	3	21	2	23	1	36	0	9	5	100
Group 4:										
Bank L	0	16	1	43	0	19	1	20	0	100
Bank M	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	------
Bank N	0	34	2	32	5	18	3	4	2	100
Bank O	0	12	1	31	3	29	1	19	4	100
Bank P	0	20	(5)	37	3	11	7	19	3	100
Bank Q	0	26	1	30	4	34	(5)	3	2	100

[1] For description of groups of banks, see table 12.
[2] Includes normal application of savings as well as operating income.
[3] Limits for loans generally are: 50 percent of value of fixed assets, local securities, and current assets of business firms; 75 percent of value of marketable securities; and 80 percent of value of farm chattels.
[4] Includes portions of loans exceeding the limits fixed for loans based on conservative equities.
[5] Less than 0.5 percent.
[6] Not classified.

MEANS BY WHICH BANKS LIQUIDATED THEIR LOANS

The nature of the processes by which banks succeeded in collecting, transferring, or otherwise reducing their loans and the extent of the liquidations so obtained are revealed in table 16. Although substantial amounts of the loans outstanding in 1929 could be and were liquidated during the depression by requiring borrowers to sell or refinance their assets, such measures often involved drastic penalties for borrowers and created intense ill feeling toward the banks. Partly because of unwillingness to invoke these measures against their borrowers and partly because borrowers, in desperation, sought and often found effective ways of defeating efforts to collect, bankers were forced to rely much more than had been anticipated upon payments from borrowers' incomes. As a result, the liquidation process was long drawn out in many banks.

By 1932 many banks had liquidated their most easily collectible loans and those remaining had become much less liquid and secure

than those outstanding in 1929. The most striking features of the liquidation record of loans outstanding in 1932, as compared with the record of 1929 loans, are the increased importance of refinancing and charge-offs, and the diminished importance of collections from borrowers' incomes and from liquidations of assets. Items placed in segregated trusts and balances still outstanding on June 30, 1935, represented much higher proportions of the 1932 loans than of the 1929 loans.

TABLE 16.—*Distribution of loans held by 17 selected banks, on June 30, 1929, and on June 30, 1932, by method of liquidation*

Group and bank [1]	Cash collections from— Call loans and commercial paper	Borrowers' income	Sale by borrowers of their assets [2]	Refinancing of borrowers' debts	Unknown sources	Loans taken over by other borrowers	Loans satisfied by taking over borrowers' property	Loans charged off as loss	Loans placed in depositors' trust	Loans outstanding June 30, 1935
LOANS HELD ON JUNE 30, 1929										
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:										
Bank A	5	14	12	18	7	0	12	9	0	23
Bank B	0	30	9	21	2	1	0	2	0	35
Bank C	20	36	17	16	1	0	0	0	0	8
Bank D	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Group 2:										
Bank E	0	22	18	24	4	0	2	3	10	17
Bank F	3	22	13	20	7	0	2	(4)	15	18
Bank G	3	20	9	4	2	0	8	6	16	23
Bank H	0	35	15	21	7	0	0	0	18	4
Bank I	0	25	19	[5] 22	7	1	5	4	0	17
Group 3:										
Bank J	0	23	13	13	2	1	2	3	33	10
Bank K	3	17	13	20	4	1	1	2	12	27
Group 4:										
Bank L	0	19	15	24	4	2	3	11	0	22
Bank M	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bank N	0	28	20	9	1	5	3	6	0	28
Bank O	0	14	14	[5] 35	4	2	3	14	0	14
Bank P	0	13	10	5	13	0	2	6	0	51
Bank Q	0	31	22	18	7	0	4	2	0	16
LOANS HELD ON JUNE 30, 1932										
Group 1:										
Bank A	0	8	6	21	2	1	11	11	0	40
Bank B	0	17	3	18	(4)	0	0	3	0	59
Bank C	7	30	11	23	6	0	0	1	0	22
Bank D	0	25	9	9	4	3	0	3	0	47
Group 2:										
Bank E	0	10	9	24	2	0	3	2	17	33
Bank F	0	14	6	18	5	0	3	3	21	30
Bank G	0	9	4	4	3	0	0	1	30	40
Bank H	0	29	7	30	1	0	0	0	25	8
Bank I	0	12	14	[5] 36	3	0	2	3	0	30
Group 3:										
Bank J	0	10	7	12	2	0	0	2	48	19
Bank K	0	4	5	30	0	1	0	2	20	35
Group 4:										
Bank L	0	5	14	22	1	0	1	10	0	41
Bank M	0	8	10	34	3	0	3	11	0	33
Bank N	0	10	14	14	3	4	(4)	6	0	49
Bank O	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bank P	0	4	2	2	(4)	0	4	8	0	80
Bank Q	0	13	17	26	8	0	6	0	0	30

[1] For descriptions of groups of banks, see table 12.
[2] Includes payments made by reduction of inventories and accounts receivable, and loans offset against deposits in closed banks.
[3] Not classified.
[4] Less than 0.5 percent.
[5] Includes liquidation through sales of assets to another bank.

These differences are the result of several factors, among them the shorter record on the 1932 loans, the reduced circumstances of borrowers, and the reduced volume of current-operating loans held by the banks. In addition, by 1933 the possibilities of normal processes of liquidation had been largely exhausted by many banks and public sentiment had crystallized sharply against further forced liquidations. Improved facilities for refinancing loans through the H. O. L. C. and the F. C. A. were very helpful in these circumstances.

By June 30, 1932, despite drastic reductions in the volume of lending, only one bank, C, had reduced its outstanding loans as much as 30 percent from the volume in 1929, and half of the remaining banks had reduced their loans less than 20 percent. One year later, only one-third of the banks surviving to that date had reduced their loans as much as 35 percent. Though these reductions seriously inconvenienced many borrowers, they were moderate in relation to the banks' need for liquidation. Inability to obtain substantial and timely liquidation on poorly protected loans often caused the banks to sustain heavy losses. Some banks were not able to liquidate "sound" loans with sufficient rapidity to meet the shrinkages of deposits that were occurring.

SECURITY FOR LOANS

State bank examiners in Wisconsin during the early years of the depression prepared virtually complete classifications of loans according to the way in which loans were secured. National bank examiners do not appear to have made such classifications, although they stated the volume of loans that was secured by real estate mortgages and usually indicated the amounts of commercial paper and call loans that were held by the banks. Data from bank examiners' reports were used in preparing table 17, which shows how the loans of the 17 banks were secured at the time of examination in 1929 (table 17).

TABLE 17.—*Distribution of loans held by 17 selected banks on examination dates in 1929, by type of security*

Group and bank [1]	Brokers' loans and commercial paper	Local loans, by type of security								Total loans
		Secured by quick collateral	Unsecured	Endorsed	Secured by slow collateral	Secured by first real estate mortgage	Secured by junior real estate mortgage	Secured by unclassified real estate mortgage	Unclassified	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:										
Bank A	6	(2)	25	28	7	34	0	----	0	100
Bank B	0	2	46	5	18	26	3	----	0	100
Bank C	22	6	41	15	1	15	0	----	0	100
Bank D	0	7	28	24	13	23	5	----	0	100
Group 2:										
Bank E	0	0	40	17	9	31	3	----	0	100
Bank F	3	(2)	20	15	5	54	3	----	0	100
Bank G	(2)	1	23	9	15	48	4	----	0	100
Bank H	0	1	5	24	1	69	0	----	0	100
Bank I	(4)	(4)	(4)	(4)	(4)	----	----	12	88	100
Group 3:										
Bank J	0	(2)	15	17	10	40	9	----	0	100
Bank K	2	2	10	7	10	59	1	----	0	100
Group 4:										
Bank L	0	0	20	12	28	22	18	----	0	100
Bank M	0	0	26	12	15	43	0	----	4	100
Bank N	(4)	(4)	(4)	(4)	(4)	----	----	23	77	100
Bank O	0	(2)	20	16	11	27	7	----	10	100
Bank P	0	0	51	9	18	13	9	----	0	100
Bank Q	0	1	0	26	12	40	(2)	----	21	100

[1] For description of groups of banks, see table 12.
[2] Less than 0.5 percent.
[4] Not classified in examiners' reports.

From these data it is clear that great differences prevailed among the banks with regard to the way in which loans were secured just before the depression began. The proportion of loans secured by first real estate mortgages varied from 13 percent in bank P to 69 percent in bank H; the proportion secured by junior mortgages on real estate varied from none in several banks to 18 percent in bank L. Unsecured loans were 51 percent of total loans in bank P while bank Q held none. These are the most striking differences, but there were wide variations in all classifications.

Data on the security for loans were obtained, not only for the 17 banks selected for special study, but for 24 additional surviving banks and 17 additional closed banks. The relative importance of real estate contracts and loans secured by real estate mortgages, to each of the 58 country banks on which data were obtained, is shown in table 18. Each percentage shows, for one bank, the relation of such loans to the total loans of the bank; and the percentages for the individual banks included in each of four groups are arrayed from low to high to facilitate comparisons between the several groups of banks. Letters in parentheses are used to indicate the percentages for the 17 banks that were selected for special study (table 18).

Banks that survived the depression without establishing trusts generally had smaller proportions of their loans secured by slow collateral and by real estate mortgages, and somewhat larger proportions secured by quick collateral than did banks in other groups. No differences appeared consistently among the several groups of banks with respect to the proportions of loans that were endorsed or unsecured. Perhaps the most significant point is that individual banks differed so widely in their methods of securing loans as to overshadow the small average differences between groups of banks.

TABLE 18.—*Percentage of loans represented by real estate contracts or secured by real estate mortgages, 1929* [1]

[Array of percentages of loans for individual banks]

17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*
4	11	22	13
10	12 (I)	40	18
14	16	41	20
15 (C)	18	58 (J)	22
17	19	60 (K)	22 (P)
18	21		23
18	22		23 (N)
24	30		30
24	34		31
25	34		33
28 (D)	34 (E)		34 (O)
29 (B)	38		34
29	52 (G)		38
34 (A)	53		40
35	57 (F)		40 (L)
35	58		41 (Q)
49	69 (H)		43 (M)
			53
			54

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.

Examination Policy With Respect to Loans

It is worth while to survey the classifications of loans made by bank examiners for three primary reasons: (1) To gain such additional information about the loans as can be obtained from examiners' classifications; (2) to indicate the extent to which such classifications pointed out weak or dangerous elements in the loan positions of banks before the depression; and (3) to provide a check upon the representativeness of the 17 banks which were selected for special study.

LOANS TO OFFICERS, DIRECTORS, AND EMPLOYEES AND TO AFFILIATED INTERESTS

One of the classifications of loans made by examiners showed the amounts owed to the banks by the directors, officers, and employees and by firms or corporations in which they were interested. Indebtedness owed was considered to include notes on which these parties were endorsers as well as those on which they were makers. Such information indicated the extent to which bankers were using their communities' funds for their own personal or business purposes and had value to the supervisory officials in several respects. Carried to extremes this practice might be out of harmony with community welfare. More important from the standpoint of a bank's solvency, however, bankers were likely to be less prudent in lending to themselves than to others. The relation, at the time of examination in 1929, of loans to officers, directors, employees, and their affiliated interests to the total loans of the 58 country banks on which data from examiners' reports were obtained is shown in table 19.

Table 19.—*Percentage of loans which examiners classified as loans to officers, directors, and employees, and to firms or corporations in which they were interested, 1929* [1]

[Array of percentages of loans for individual banks]

17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*
0	(2) (E)	1	2 (M)
1	1	4 (K)	3
1 (A)	1	4 (J)	5
3	2	4	7
3	4 (H)	4	7
4 (B)	4		8
5	4		9
7	4		9 (L)
7	5		10 (N)
7	5 (I)		11 (O)
12	6 (F)		12 (Q)
14 (C)	7		13
16 (D)	7		15
17	11		19
21	11 (G)		20
21	16		21
24	20		22 (P)
			28
			52

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.
[2] Less than 0.5 percent.

It appears that, on the average at least, the managements of banks that later closed were somewhat more inclined to favor their own, and their employees' interests than were the managements of banks that

had more successful careers. There was much overlapping in the positions of banks in the several groups, however, and it is questionable whether, as a general rule, the extent of loans to a bank's own management and employees and their affiliated interests was a controlling factor in the later experiences of the banks. Such loans might be among a bank's best loans, and there frequently were cases where the commercial or agricultural holdings of a bank's management and employees were so important in a community that they naturally, and without any discrimination against the interests of others, absorbed a considerable part of the community's loan funds. On the other hand, in some cases the managements of banks exceeded all reasonable limits in trying to serve their personal interests.

Whether or not such loans are especially hazardous would appear to be a matter for determination in individual cases rather than in any aggregate sense. It seems generally to be regarded as better public policy, however, for bankers to obtain their financing from institutions other than those which they control.

EXCESS LOANS AND LOANS UNDULY CONCENTRATED AMONG FEW BORROWERS

In other classifications examiners listed the loans that exceeded statutory limits upon loans to one party and those which, though not exceeding legal limits, appeared to represent an undue concentration of loans among few borrowers, among affiliated interests, or in single industries. Loans of the first-mentioned class, commonly called excess loans, were in violation of law and were subject to official action on that score. Loan limits to one party have been fixed by law because of the risk involved when banks, instead of distributing their loan funds among many borrowers, lend them mainly to a few borrowers. It frequently happens, however, that the principle of diversification can be violated to a dangerous extent by measures that technically are within the law. When examiners discovered what appeared to be undue, though not illegal, concentrations of loan risks they listed such loans and warned bankers of the dangers involved.

Most of the banks in 1929 had no loans classified under the headings of excess or of unduly concentrated loans (table 20). Of the 17 banks selected for special study, bank H was the most criticized, having about 16 percent of its loans classified under these headings. It does not appear that concentrations of funds among few borrowers were carried to a substantially greater degree among banks that later closed than among banks that survived without reorganization.

TABLE 20.—*Percentage of loans which examiners classified as large lines, representing undue but legal concentrations of credit, and excess lines, 1929* [1]

[Array of percentages of loans for individual banks]

17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*
0 (A)	0 (E)	0 (J)	0 (L)
0 (B)	0 (F)	0 (K)	0 (M)
0 (C)	0	0	0 (O)
0	0	3	0 (Q)
0	0	27	0
0	0		0
0	0		0
0	0		0
0	0		0
0	2		0
0	3		0
2	4		3 (N)
4 (D)	5		4
4	6 (G)		7
5	7		8
6	11 (I)		8
22	16 (H)		9 (P)
			13
			30

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.

PAST-DUE LOANS

A fourth classification of loans made by examiners segregated the loans on which payments were in arrears. Examiners divided such loans into two groups, called statutory bad debts and other past-due paper.

The classification of past-due loans has significance from several viewpoints. As a rule, its chief bearing on the loan position is that it indicates whether banks are looking carefully after their loans. It is not necessarily true, however, that large amounts of past-due paper at any time reflect loose loan practices, as bankers sometimes allow paper to become past due merely in order to have it callable on demand. Conversely, small amounts of past-due paper do not necessarily signify that the loans are in good condition. By executing extensions or new debt instruments bankers can sometimes keep very poor loans out of the past-due classification. The value of the classification lies chiefly in what it suggests rather than in anything it proves.

TABLE 21.—*Percentage of loans which exmainers classified as past-due and statutory-bad loans, 1929* [1]

[Array of percentages of loans for individual banks]

17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*
1	2	22	3
1	4 (I)	26	3 (N)
2	6 (E)	26 (J)	5
2	7	32	6
2	8	47 (K)	6 (M)
6	12		7
7 (C)	17		7
10	18		13
12	18		16 (Q)
12 (D)	18		19
13	20		23
14	23		24 (O)
15	32 (F)		24
20	38 (H)		27
23 (B)	51		29 (P)
28 (A)	51 (G)		29 (L)
29	66		37
			42
			61

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For descriptions of groups of banks, see table 12.

In 1929 the banks that survived the depression without establishing trusts had on the average a substantially lower proportion of the loans past due than did banks in the other groups (table 21). But in this case also there was much overlapping of the positions of banks in the various groups. Obviously the amount of past-due paper held at the beginning of the depression was not a sure guide to the later experiences of the banks, though it probably had some bearing upon their positions.

SLOW, DOUBTFUL, OR WORTHLESS LOANS

Easily the most important classification of loans made by examiners was that which designated certain loans or portions of loans as slow, doubtful, or worthless. Whereas the other classifications mainly pointed to potential sources of danger, this classification listed the loans in which impairment of quality was considered to have become an accomplished fact. Moreover, a recapitulation of all slow, doubtful, and worthless assets, including loans, appeared near the end of the examiners' reports, and the volume of such assets was considered carefully in attempting to determine whether the capital of the banks was impaired. Thus the use made of the classification, as well as its character, gave it unusual prominence in the examination reports.

It is difficult to frame a precise definition of the meaning of the terms "slow," "doubtful," and "worthless." Examiners often differed among themselves as to the proper use of these terms, and the basis for classifying loans was changed from time to time. The clearest view of the classification may be obtained by noting how examiners classified various types of loans.

Several broad features of examination policy in 1929 are revealed by table 22. Perhaps the most striking feature is the small proportion of loans that examiners criticized, or, stated in the terms used in the table, the large proportion that examiners did not criticize. A second feature is the infrequent use of the terms "doubtful" or "worthless"

and the extensive use of the term "slow" in commenting upon criticized loans. Third, of the loans classified as slow, about two-thirds had their entire principal amounts (100 percent) placed in the slow category and another one-fifth had more than 75 percent of their principal amounts so classified. There was plainly a tendency for examiners to criticize virtually the entire amount of a loan if it were criticized at all, and the term "slow" was used almost exclusively as a means of criticism.

With increases in the size of loans, larger and larger proportions of the total number were criticized by examiners. Comparatively little information was available to examiners for use in classifying the general run of small loans. If such loans were not in arrears and if the borrowers were given a favorable report by the bankers, examiners usually passed them without criticism. Most of the large loans, however, were supported either by financial statements or collateral from which examiners could form an independent opinion of their quality, and these consequently received more careful study. This may explain to some extent why large loans were so much more subject to criticism than small loans, but the principal explanation is the greater risk attaching to large loans.

TABLE 22.—*Examiners' classifications of selected Wisconsin bank loans to farmers and others outstanding June 30, 1929, by size*

Size of loan	Loans	Loans classified by examiners as [1]—					Loans not classified by examiners
		Slow			Doubtful or worthless		
		100 percent	76 to 99 percent	1 to 75 percent	51 to 100 percent	1 to 50 percent	
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than $500	127	4	1	0	1	0	94
$500–$999	35	3	0	0	0	0	97
$1,000–$1,499	31	13	0	0	0	0	87
$1,500–$2,499	40	15	0	2	0	0	83
$2,500–$4,999	72	18	10	1	0	0	71
$5,000–$9,999	93	19	14	7	0	2	60
$10,000–$19,999	33	27	12	9	0	3	52
$20,000 and over	8	38	12	25	0	0	25
Loans to others:							
Less than $500	88	3	1	0	0	0	96
$500–$999	16	0	0	0	0	0	100
$1,000–$1,499	12	8	0	0	0	0	92
$1,500–$2,499	31	16	0	3	0	0	81
$2,500–$4,999	60	13	5	2	0	0	80
$5,000–$9,999	75	12	3	3	0	0	82
$10,000–$19,999	46	24	0	4	2	0	70
$20,000 and over	12	8	8	17	8	0	67

[1] Where some loans were classified partly as slow and partly as doubtful or worthless, the percentages add across to more than 100 percent.

The ages of the loans or the periods during which they had been outstanding had a bearing upon examiners' classifications. Examiners usually looked back over the records showing past activity of the loans and were more likely to criticize loans that had been outstanding without curtailment for long periods than loans of recent origin. From table 23 it seems clear, however, that examiners did not consider the past duration of loans to be very important.

As examiners did not usually inquire into the purposes for which loans had been used, this factor seldom had direct influence upon examiners. But these purposes had a substantial bearing upon the financial condition of the borrowers and upon the probable liquidation

and loss records of the loans. It is interesting therefore, that examiners in 1929 criticized none of the loans that had been used mainly for seasonal-operating or for current-personal purposes, which later had, in actual experience, excellent records in liquidation. Their criticisms were reserved for nonseasonal working-capital and fixed-capital loans, on which the later experience was less favorable. The loans most subject to criticism were those which grew out of the sale of the bank's own real estate. These usually had been made on a much less conservative basis than other fixed-capital loans.

TABLE 23.—*Examiners' classifications of selected Wisconsin bank loans to farmers and others outstanding June 30, 1929, by age, purpose, and basis for quick liquidation of loan*

Age, purpose, and basis for quick liquidation of loan	Loans [1]	Loans classified by examiners as [2]—					Loans not classified by examiners
		Slow			Doubtful or worthless		
		100 percent	76 to 99 percent	1 to 75 percent	51 to 100 percent	1 to 50 percent	
Age:							
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than 1 year	38	10	3	3	0	3	84
From 1 to 2 years	23	17	0	0	0	0	83
From 2 to 4 years	28	7	14	4	0	0	75
More than 4 years	111	26	13	3	0	2	58
Loans to others:							
Less than 1 year	74	1	0	0	0	0	99
From 1 to 2 years	19	5	5	0	0	0	90
From 2 to 4 years	27	22	0	4	0	0	74
More than 4 years	47	30	2	2	2	0	64
Purpose:							
Loans to farmers:							
Seasonal operations [3]	12	0	0	0	0	0	100
Nonseasonal working capital [4]	66	11	4	3	0	2	82
Fixed capital [5]	153	18	8	5	0	1	69
Sale of banks' own real estate	16	25	19	0	0	6	56
Loans to others:							
Seasonal operations [3]	36	0	0	0	0	0	100
Nonseasonal working capital [4]	71	10	3	3	0	0	84
Fixed capital [5]	81	19	1	1	1	0	78
Sale of banks' own real estate	4	50	25	0	0	0	25
Basis for quick liquidation:							
Loans to farmers:							
Current income	12	0	0	0	0	0	100
Nonseasonal working capital	68	16	0	3	0	0	81
Fixed capital	40	2	2	3	0	0	93
Loans to others:							
Current income	37	0	0	0	0	0	100
Nonseasonal working capital	57	7	4	0	0	0	89
Fixed capital	35	23	3	0	0	0	74

[1] Includes only loans of $500 or more of which main portion (80-100 percent) fell within the age, purpose, or basis for quick liquidation classifications indicated.

[2] Where some loans were classified partly as slow and partly as doubtful or worthless, the percentages add across to more than 100 percent.

[3] Loans for seasonal or temporary operating purposes and loans for current personal uses that had not been outstanding for more than 12 months.

[4] Loans for purchase or retention of nonseasonal working capital and securities, and personal and operating loans more than 12 months old.

[5] Includes loans for refinancing purposes.

Bank examiners relied to a large extent on financial statements, collateral records, and records showing past activity of the loans in attempting to determine whether the loans were secure and liquid. They criticized none of the loans that appeared to be payable within a short time from the current incomes of borrowers. These were mainly small personal loans and loans of the self-liquidating type, used to finance seasonal operations. Small numbers of apparently sound loans that appeared to depend for quick liquidation upon the refinancing or liquidation of nonseasonal working capital and fixed

capital were criticized, but there was no general disposition to criticize the "good but slow" variety.

Criticism was reserved mainly for loans of which substantial portions were poorly protected or which rested upon thin equities in borrowers' assets (table 24). These loans usually represented overextensions of credit or grew out of adverse changes in borrowers' circumstances or arose from special transactions such as the sale of the banks' own real estate. In criticizing large proportions of such loans as slow, and only small proportions as doubtful or worthless, examiners in 1929 evidently applied the term "slow" to many loans that were recognized to be of very doubtful character.

TABLE 24.—*Examiners' classifications of selected Wisconsin bank loans to farmers and others outstanding June 30, 1929, by portions of loans resting on thin equities in borrowers' assets*

Loans of which specified percentages rested on thin equities in borrowers' assets [2]	Loans	Loans classified by examiners as [1]—					Loans not classified by examiners
		Slow			Doubtful or worthless		
		100 percent	76 to 99 percent	1 to 75 percent	51 to 100 percent	1 to 50 percent	
Loans to farmers:	*Number*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
0	198	9	1	3	0	0	87
1–19	27	15	7	4	0	0	74
20–39	34	41	24	3	0	3	32
40–59	33	40	27	6	0	6	27
60–79	14	36	21	21	0	0	22
80–100	6	17	17	0	0	0	66
Loans to others:							
0	203	8	1	1	0	0	90
1–19	9	45	22	0	0	0	33
20–39	19	32	0	16	0	0	53
40–59	8	38	0	0	0	0	62
60–79	7	43	14	14	0	0	29
80–100	8	50	0	12	25	0	25

[1] Where some loans were classified partly as slow and partly as doubtful or worthless, the percentages add across to more than 100 percent.

[2] Includes only loans of $500 or more.

It must be concluded that, before the depression, the terms slow and doubtful were given, in practical application by examiners, meanings substantially different from the usual connotations of the terms. The doubtful classification was seldom applied even to loans or portions of loans that were very insecure. Junior real estate mortgages, for example, usually escaped this classification. The slow classification included some of the loans that were merely slow in payment, but was used more generally to designate loans that had a poorly protected equity to secure them. Well-secured loans, though obviously slow in the sense that they had been outstanding for long periods at the time of examination and normally would continue to be outstanding for a long time, were not often classified as slow. It appears that the classification "worthless" must have been reserved for loans that represented loss beyond any reasonable doubt.

CHANGES IN VOLUME OF LOANS CLASSIFIED AS SLOW, DOUBTFUL, AND WORTHLESS

The percentages of the banks' loans that were classified as slow, doubtful, and worthless in 1929, 1932, and 1934 are shown in table 25. During 1929–31, the percentages criticized in the various classes of

banks increased only slightly, but there was a sharp increase in criticized loans from 1931 to 1932 and further sharp increases to 1934. The loans of banks that survived without establishing depositors' trusts were less severely criticized than the loans of other banks until 1934. Then, by transferring the worst loans to depositors' trusts some banks so improved their portfolios that the criticized percentages of their loans fell below those of banks that survived without establishing trusts.

TABLE 25.—*Percentage of loans which examiners classified as slow, doubtful, or worthless, 1929, 1932, and 1934* [1]

[Array of percentages of loans for individual banks]

1929				1932				1934	
17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4	16 banks in group 1	14 banks in group 2	4 banks in group 3	11 banks in group 4	15 banks in group 1	14 banks in group 2
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1 (C)	3	6	[2] (M)	3 (C)	[3] 3	32	10 (M)	17 (D)	[3] 9
2	5	16 (K)	([2])	6	17 (E)	34 (K)	12	23	[3] 17
2	8 (I)	21	3	7	20 (I)	63 (J)	16	24	[3] 23 (E)
2	8	38	4	7	20 (G)	[3] 90	21 (Q)	34 (C)	[3] 25
4	8	46 (J)	6	11	[3] 26		41	39	[3] 28
4 (D)	10		10 (O)	21 (A)	34		41	47	[3] 34 (I)
5	12		11	24 (D)	34 (H)		53	48	[3] 42 (H)
6	12 (F)		14	24	35		65	52	[3] 44
6	13		16 (N)	26	35 (F)		79 (N)	55	[3] 49
10 (B)	16		16	29 (B)	36		79	60 (A)	[3] 57
10	19 (E)		21 (Q)	32	38		85	61	[3] 60
13	21		22	32	[3] 48			63	[3] 63 (O)
14	22		24	36	63			70 (B)	70 (F)
15	22		26	38	74			71	[3] 78
19	25		27	38				75	
22	37 (H)		30	40					
22 (A)	44 (G)		30 (P)						
			35						
			44 (L)						

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.
[2] Less than 0.5 percent.
[3] Indicates percentages for banks that had eliminated a portion of the loans through reorganization before date of examination.

The large increase during the depression in the percentages of loans classified by examiners as slow, doubtful, and worthless was a result of several developments. The total volume of loans was declining, the safety and liquidity of many loans had been undermined by depressed conditions, and examiners' classifications appear to have become more rigorous. It would be difficult, if not impossible, to measure accurately the force of these several factors in causing the percentages of criticized loans to rise from 1929 to 1934, but from data at hand a general idea of their relative importance may be gained.

It appears that such increases as occurred in the loans classified by examiners as slow, doubtful, and worthless from 1929 to 1933 were due mainly to deterioration of the quality of bank loans. During this period there was no noteworthy change in the method of classification. Good but slow loans seldom were criticized, and only a small part of the poorly protected loans was classified as doubtful or worthless. Beginning in 1933, however, examiners became much more rigorous in classifying bank loans. The classification slow was extended to include many of the loans that were good but slow, and a large propor-

tion of the poorly protected loans was classified as doubtful or worthless. Most of the increase of criticized loans from 1932 to 1934 appears to have been due to the increased rigor of examiners' classifications.

Coming at or about the time when the Nation-wide bank "clean-up" program was adopted to prevent the reopening of unsound banks closed during the bank holiday, and to clear the way for deposit insurance, the change in examination procedure presumably reflected the conviction that earlier standards for classifying bank loans had not proved effective. Certainly the more rigorous classifications employed from 1933 to 1935 might be expected to influence banks to maintain their loans in a more liquid, and a better protected, condition than was often the case before the depression. There was considerable objection to the new standards, however, principally on the grounds that criticizing good but slow loans tended to discourage banks from making many of the types of loans for which there was legitimate need on the part of the public.

Owing to such objections, the use of the classifications "slow," "doubtful," and "loss" (worthless) was dropped by Federal agencies in the summer of 1938. The change was reported as follows by the Federal Reserve Bulletin of July 1938—

> The "slow" classification has long been a misnomer and a cause of complaint. In place of this, and of the classifications heretofore headed "doubtful" and "estimated loss," there will be substituted the designations II, III, and IV. Class II includes loans or portions of loans which appear to involve a substantial and unreasonable degree of risk, by reason of an unfavorable record or other unsatisfactory characteristics, and in which the possibility of future loss exists unless they receive the careful and continued attention of the bank's management. Class III includes loans or portions of loans the ultimate collection of which is doubtful and in which a substantial loss is probable but not yet definitely ascertainable in amount, and Class IV is for listing loans or portions of loans which are estimated as loss. Loans in Class I are those in which the repayment appears to be assured, and such loans will not be listed in the examination reports.

CHARACTER AND PERFORMANCE OF BANKS' SECURITIES INVESTMENTS

In studying the investment policies and experiences of the banks it will be profitable to observe: (1) The relation of the banks' securities holdings to their total loans and securities, (2) the character of the securities held by the banks at various dates, (3) the depreciation of securities during the depression and its effect upon the banks, and (4) the policies of bank examiners with respect to the investment accounts of the banks.

Relation of Securities to Total Loans and Securities

The changing importance of loans and securities to Wisconsin banks is shown in figure 9. Among the banks generally, loans increased in importance from 1919 to 1922 or 1923. This change was due mainly to a more rapid liquidation of securities than of loans following the sharp recession of 1920–21. Starting about the end of 1923, however, there was a substantial expansion of earning assets, in the course of which the banks rapidly increased their holdings of securities other than issues of the United States Government. From this point until the recession of 1929–32 the proportion of securities holdings increased while that of loans decreased. After 1933, there were large increases

in the proportion of securities issued or guaranteed by the United States Government, substantial increases in other securities, and a sharp decline in the proportion of loans held by the banks.

An interesting point disclosed by these data is that averages for the two groups of surviving banks moved closely together, and that there

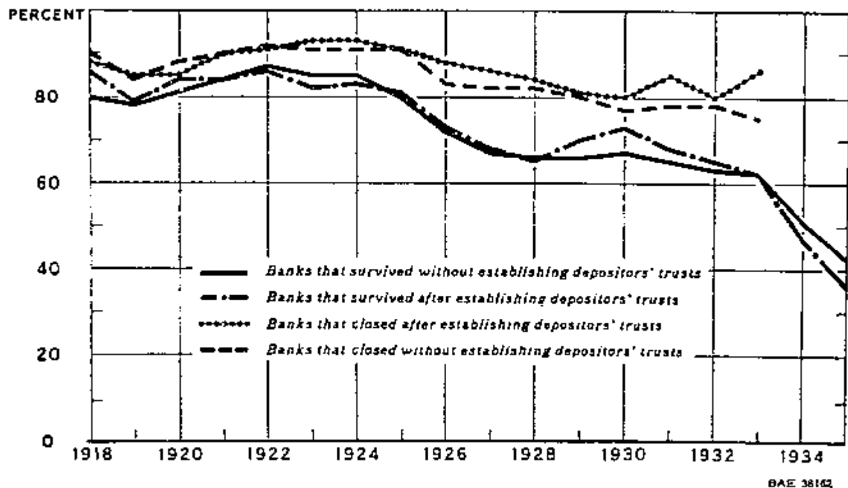

FIGURE 9.—RELATION OF LOANS TO TOTAL LOANS AND INVESTMENTS IN FOUR GROUPS OF COUNTRY BANKS, 1918–35.

(Total loans and investments=100)

Loans increased in importance relative to securities until 1922 or 1923 but thereafter were of declining importance. Throughout the period covered by this figure surviving banks had larger securities accounts, relative to their loan accounts, than did banks that closed during the depression.

was similar conformity in the movements of averages for the two groups of banks that were closed during the depression. In the surviving banks loans were relatively less important and holdings of securities were relatively more important than in the closed banks. The substantial difference in this respect between the surviving- and closed-bank groups suggests that, up to a certain point at least, Wisconsin banks were able to find more protection in securities than in loans. It will be pointed out later, however, that the solvency of banks was affected much more strongly by the character, than by the volume, of the securities held.

CHARACTER OF SECURITIES HELD

Data on the kinds of securities held by the banks in 1929, 1932–33, and 1935 were obtained from the itemized lists of securities included in examination reports. Reports for all operating banks were available for 1929 and 1935, but omissions of data for several of the banks in 1932 made it necessary to select a few reports dated between January and May 1933.

ISSUING ORGANIZATIONS

In 1929 the securities held by the banks consisted principally of United States securities and the securities of utility and industrial con-

cerns (table 26).[9] There were considerable holdings of foreign-government and real estate bonds. Little change in this distribution had occurred by 1932–33 except in banks that closed after establishing depositors' trusts. These banks sold most of their United States securities, thus increasing the relative importance of their other principal holdings. From 1932–33 to 1935 the surviving banks increased their holdings of securities issued or guaranteed by the United States Government and also their holdings of railroad bonds. Real estate and foreign-government bonds decreased in relative importance.

QUALITY OF SECURITIES

To classify the securities by quality it was necessary to use the ratings placed on bonds by commercial-rating agencies and, sometimes, to make arbitrary assumptions concerning the quality of unrated securities. As examiners used several commercial-rating services, bonds of the highest rating, including Moody's Aaa, Fitch's AAA, and Standard Statistics' A1+, were placed in a class designated grade 1 securities, and securities of lower ratings were placed in correspondingly lower grades.

Classifications of the securities held by the banks in 1929, 1932–33, and 1935, by quality, are given in table 27. At all times during this period, banks that survived the depression without establishing depositors' trusts had securities holdings of better average quality than did banks that had to be closed or reorganized. Moreover, the securities held by banks that survived after establishing trusts were superior to those held generally by closed banks.

TABLE 26.—*Distribution of bonds and other securities (book values), held by selected country banks in 1929, 1932–33, and 1935, by nature of the issuing organization*[1]

Nature of issuing organization	Bonds and other securities held in 1929 by—				Bonds and other securities held in 1932–33 by—				Bonds and other securities held in 1935 by—	
	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4	16 banks in group 1	15 banks in group 2
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
United States securities	18	10	49	20	19	10	7	17	26	22
United States guaranteed securities	0	0	0	0	0	0	0	0	13	13
Federal and joint-stock land bank bonds	4	0	0	0	1	0	0	0	1	4
Wisconsin county and municipals	5	4	2	6	5	2	5	3	6	4
Other State county and municipals	4	3	3	3	9	2	1	5	5	4
Foreign government bonds	7	10	4	7	8	10	3	7	2	4
Other foreign bonds	2	4	3	3	3	3	1	2	2	2
Steam railroad bonds	6	5	3	4	7	8	5	5	11	11
Utility bonds	27	33	13	21	28	34	35	26	21	23
Industrial bonds	16	23	18	16	12	18	20	19	10	12
Real estate and miscellaneous bonds	10	7	5	15	6	6	14	11	2	1
Other securities	2	1	0	3	2	1	0	5	1	0
Total	100	100	100	100	100	100	100	100	100	100

[1] For description of groups of banks, see table 12.

[9] United States securities serving as collateral for the circulating notes of national banks have been omitted from all of the tables hereafter.

TABLE 27.—*Distribution of bonds and other securities (book values), held by selected country banks in 1929, 1932–33, and 1935, by the quality of the securities*[1]

Quality of securities	Bonds and other securities held in 1929 by—				Bonds and other securities held in 1932–33 by—				Bonds and other securities held in 1935 by—	
	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4	16 banks in group 1	15 banks in group 2
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
United States securities	18	10	49	20	19	16	7	17	26	22
United States guaranteed securities	0	0	0	0	0	0	0	0	13	13
Federal land bank bonds	4	0	0	0	1	0	0	0	1	4
Grade 1 bonds	9	8	5	6	7	4	0	2	2	2
Grade 2 bonds	8	7	4	3	8	6	1	3	6	5
Nonrated State, county, and municipal bonds	4	3	1	4	4	2	5	3	4	3
Grades 3 and 4 bonds	34	40	26	28	22	22	32	14	30	28
Grades 5 and 6 bonds	10	14	9	19	18	22	23	22	11	15
Grade 7 and other low-rated bonds	2	1	1	1	7	12	10	10	1	5
Nonrated other bonds	8	8	5	16	4	6	10	8	2	2
Defaulted State, county, and municipal bonds	0	1	0	0	1	1	0	0	0	0
Defaulted other bonds	1	1	0	1	7	8	12	16	3	1
Other securities	2	1	0	3	2	1	0	5	1	0
Total	100	100	100	100	100	100	100	100	100	100

[1] For description of groups of banks, see table 12.

There were extremely large differences, however, in the quality of the securities held by banks within each group. For 1929 such differ-

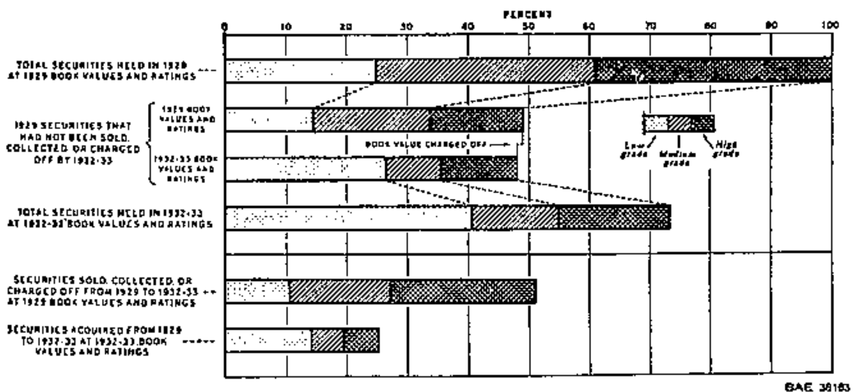

FIGURE 10.—SECURITIES HELD BY 15 COUNTRY BANKS IN 1929 AND 1932–33: SECURITIES SOLD, CHARGED OFF, OR COLLECTED AND SECURITIES ACQUIRED FROM 1929 TO 1932–33, CLASSIFIED BY GRADE.

(Book value of all securities held in 1929=100)

The deterioration of the banks' securities portfolios from 1929 to 1932–33 was due mainly to greater liquidation of high- and medium-grade securities than of low-grade securities. The new securities purchased, however, were predominantly of low grade.

ences are shown in table 28. Many banks survived despite the fact that they entered the depression with considerable amounts of low-

grade securities, and many failed even though their securities were mostly of high grades.

As the depression developed, the quality of the banks' securities holdings appears to have deteriorated. In each group of banks the proportion of high-grade securities declined and the proportion of low-grade securities increased from 1929 to 1932–33. The changes that occurred during this period may be illustrated by data on 15 of the banks selected for special study (fig. 10). Sales and collections of high-grade securities were proportionately much greater than those of medium- and low-grade securities; and the securities purchased by the banks appear to have been of lower grades than those sold. Moreover, there was a downward revision of the ratings placed on securities by the commercial-rating agencies. By 1932–33 the banks not only held a smaller volume of securities than in 1929, but their securities were of considerably lower average quality.

TABLE 28.—*Percentage of securities held by selected country banks which were classified as of high, medium, and low grades, 1929* [1]

[Array of percentages of securities for individual banks]

High-grade securities [2]				Medium-grade securities [3]				Low-grade securities [4]			
17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
8	10 (G)	25	1	0	34	7	0 (L)	4	11	0	0 (P)
10	10	43 (K)	8	10	34	9 (J)	0 (P)	5	12	0	6 (N)
19	12	59	9	11 (A)	36	34	12	11 (A)	14 (H)	13 (J)	15
25 (D)	17 (F)	78 (J)	12 (M)	16	37 (H)	36 (K)	15	11	17 (I)	21 (K)	21
32 (C)	19	93	13	26	39	41	16 (M)	13	17	41	28
32	24		14	27	43 (G)		19	14 (B)	19		33
33	24		18 (Q)	31	44		20 (O)	15	22 (E)		34
33	24		19	39	45 (F)		22	17	23		34
37	25		24 (L)	40	45		30 (N)	20 (C)	24		39
40 (B)	30 (E)		27	45 (D)	45		30	25	30		41 (Q)
42	30 (I)		30	45	48 (E)		36	27	31		45 (O)
46	32		35 (O)	46 (B)	50		37	28	32		45
48	32		36	47	51		37	30 (D)	34		47
63	38		50	48 (C)	53 (I)		39	36	38 (F)		49
78 (A)	49 (H)		61	49	56		41 (Q)	41	40		49
86	49		64 (N)	50	57		42	45	40		72 (M)
95	49		73	54	58		45	47	47 (G)		76 (L)
			100 (P)				48				80

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For a description of groups of banks, see table 12.
[2] Includes United States securities, Federal land bank bonds, rated bonds of grades 1 and 2, and all nonrated State, county, and municipal bonds that were not in default.
[3] Includes only rated bonds of grades 3 and 4.
[4] Includes defaulted bonds and other securities not classified as of high or medium grade.

From 1932–33 to 1935 this trend was reversed, the banks increasing both the volume of their securities holdings and the proportions of high- and medium-grade securities. To a considerable extent the newly acquired securities consisted of issues made or guaranteed by the Federal Government. Moreover, large amounts of defaulted bonds and other substandard securities were charged off during this period either to profit and capital accounts or to depositors' trusts. Notwithstanding these measures, many of the banks operating in 1935 held substantial proportions of low-grade securities.

MATURITIES OF SECURITIES

The maturity distributions of securities held by the banks in 1929, 1932–33 and 1935 are shown in table 29.

In 1929 less than half of the securities held by the banks had maturities in excess of 10 years. As the depression developed, short-term securities were liquidated to a greater extent than long-term securities, and such securities as were purchased had principally long maturities. By 1932–33, long-term securities represented nearly 60 percent of the banks' total holdings. A further increase in the proportion of long-term securities occurred from 1932–33 to 1935. During all these years the maturity distributions found in individual banks differed widely, some banks having large, whereas others had small, proportions of long-term securities.

TABLE 29.—*Distribution of bonds and other securities (book values), held by selected country banks in 1929, 1932–33, and 1935, by maturities of the securities* [1]

Maturity of securities	Bonds and other securities held in 1929 by—			
	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4
	Percent	*Percent*	*Percent*	*Percent*
Bonds:				
Past due	1	1	0	1
1929–30	13	8	5	13
1931–32	11	12	15	10
1933–34	6	7	2	6
1935–39	19	15	40	22
1940–49	19	24	15	24
1950 and later	29	31	23	20
Unclassified	0	1	0	1
Other securities	2	1	0	3
Total	100	100	100	100

Maturity of securities	Bonds and other securities held in 1932–33 by—			
	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4
	Percent	*Percent*	*Percent*	*Percent*
Bonds:				
Past due	1	1	1	1
1932–33	8	6	15	10
1934–35	11	6	4	6
1936–37	6	6	13	6
1938–42	16	15	15	17
1943–52	29	31	20	33
1953 and later	26	34	32	21
Unclassified	1	0	0	1
Other securities	2	1	0	5
	100	100	100	100

Maturity of securities	Bonds and other securities held in 1935 by—	
	16 banks in group 1	15 banks in group 2
	Percent	*Percent*
Bonds:		
Past due	1	0
1935–36	5	4
1937–38	10	6
1939–40	9	10
1941–45	11	15
1946–55	40	37
1956 and later	23	28
Unclassified	0	0
Other securities	1	0
	100	100

[1] For description of groups of banks, see table 12.

SECONDARY RESERVES

Virtually all discussions of investment policy stress the need for banks to differentiate between bonds acquired for investment account and bonds acquired for use as secondary reserves. With respect to the latter, the Bank Management Commission of the American Bankers Association has stated that "the secondary reserve must be of the character and volume to meet two different kinds of primary reserve replenishment situations." These are described as "predictable conditions," which are mostly seasonal, and "nonpredictable emergency situations." The statement continues as follows:

> It is evident, therefore, that items eligible for the seasonal secondary reserve requirements must consist of items having properly timed maturities and of such high quality that there is an absolute certainty that these items will be paid in cash at maturity.
>
> Since the time element of the emergency part of the secondary reserve may be difficult, if not impossible, to predetermine the maturity factor for items in this part of the reserve cannot be so definitely planned. However, * * * a substantial percentage of the items * * * should be timed to mature each month over a period of not to exceed 3 years. Again maturity schedule items must be of such a nature that it is an absolute certainty that they will be collectible in cash at maturity, or items which can be disposed of at a moment's notice without loss in the acquisition cost price.[10]

From this statement it clearly is considered that the secondary reserve should include only high-grade, readily marketable items having maturities generally less than 3 years. Such requirements are more strict than those commonly recognized by bankers before the depression. Then a great diversity of attitudes prevailed, some bankers holding much the same views as are expressed above, others feeling that all United States securities, not merely the short-term issues, should be included in the secondary reserve, while still others apparently regarded all or most of their marketable bonds as a form of secondary reserve. As there were no hard and fast rules for separating the secondary reserve from the investment account, three sets of figures have been compiled to show the proportions of the securities held in 1929 by selected country banks that might have been regarded as secondary reserves (table 30).

According to the strict concept promulgated by the American Bankers Association, the securities accounts of most of the banks were almost devoid of secondary reserves; only a negligible portion of the securities met the tests imposed. When the concept is liberalized to include short-term securities of medium grades, the proportions of the securities that could qualify were still very small. Only when all United States securities are included and the permissible term for other high-grade securities is lengthened to 5 years, does it appear that the majority of Wisconsin banks had provided themselves with substantial secondary reserves. Even under this very liberal procedure, however, less than 30 percent of the securities owned by the majority of the banks could be regarded as secondary reserves.

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[10] AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION. INVESTMENT POLICIES OF BANKS. Amer. Bankers Assoc. Booklet 11, 20 pp. 1939. See p. 9.

TABLE 30.—*Percentage of securities held by selected country banks which might have been regarded as secondary reserves, 1929* [1]

[Array of percentages of securities for individual banks]

High-grade securities maturing 1929–32				High- and medium-grade securities maturing 1929–32				All United States securities, other high-grade securities maturing 1929–34, and medium-grade securities maturing 1929–32			
17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4	17 banks in group 1	17 banks in group 2	5 banks in group 3	18 banks in group 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
0 (B)	0	0	0 (M)	0	2	0	0 (M)	12	4 (G)	26	0 (M)
0	0	3 (K)	0	9 (B)	3	7 (K)	0	15	4	34 (K)	1
0	0	10 (J)	0	9	3	14 (J)	0	18	5	55	4
2 (D)	0	15	0	10	4 (G)	19	2	19	12	77 (J)	9
4	2 (E)	17	1	10	9 (I)	19	6	24	15 (F)	92	13
4	2		2	12	9		7	25 (C)	15		14
6	4 (G)		2	14	10 (E)		8	26	15		17
7	4 (I)		3	15 (D)	11		8	33	16 (I)		22
8	6 (F)		3	15	12 (F)		9	36	18		22
8	8		4	18 (C)	14		13	37 (D)	22		24 (L)
12 (C)	12		6 (Q)	18	16		14 (O)	38	25 (E)		26
12	12		9 (O)	21	17		17 (Q)	42 (A)	26		28 (Q)
12	12		18 (P)	22 (A)	20		18 (P)	42 (B)	27		33
22 (A)	13		18	25	21		19	43	28		40 (O)
23	15		21	29	22 (H)		21	45	31		50
28	18 (H)		22	39	23		24 (L)	53	34		57 (N)
36	18		24 (L)	41	23		28	61	35 (H)		60
			38 (N)				52 (N)				100 (P)

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For a description of groups of banks, see table 12.

It may thus be stated with assurance that country banks in Wisconsin, as a rule, entered the depression with very small secondary reserves. Though similar data for 1932–33 and 1935 have not been compiled, the continued low percentages of short-term securities held by the banks indicates that according to a strict interpretation, secondary reserves remained low in these later years also. If all securities issued or guaranteed by the United States Government may properly be included, however, there was a substantial increase in secondary reserves between 1932 and 1935.

DEPRECIATION OF SECURITIES AND EFFECTS UPON BANKS

Of what significance was it whether the banks held securities of high or low grades or of long or short maturities? What bearing did the volume of secondary reserves have upon the banks' success in meeting the problems of the depression? The answers to such questions are found in the relationships between the grades and maturities of securities and the depreciation that developed in the banks' securities accounts.

DEPRECIATION OF VARIOUS CLASSES OF SECURITIES

In 1929 only a few classes of the securities that were held by the 58 country banks were listed by examiners at values substantially below par. By 1932–33, however, examiners' reports show most classes of securities to have been heavily depreciated, some of them losing the larger part of their values (table 31). Classes of securities on which the depreciation from par value exceeded 50 percent included joint-

stock land bank bonds, foreign industrial bonds, steam-railroad bonds, real estate and miscellaneous securities, and in the rating classes, defaulted bonds and all classes of bonds rated below grade 4. Though the book values of these classes of bonds in 1932–33 had been charged down to levels substantially below par, there remained immense losses on the books of the banks in all of the heavily depreciated types. Book losses were less than 10 percent in only a few classes of bonds—securities issued by the Federal Government, Federal land bank bonds, bonds rated grades 1 and 2, and unrated municipals. Substantial book losses were represented by the depreciation of securities of grades 3 and 4, which generally are considered acceptable for bank investment under present supervisory practice.

By 1935 the situation had been changed in numerous respects. Large amounts of new securities had been purchased, the bond market had risen far above the bottom levels of the depression, and book losses had been retired on an extensive scale. As a consequence there was a substantial appreciation of market over book values in numerous classes of securities. But the improved relationship of market to book values should not obscure the fact that many classes of securities were still seriously depreciated in 1935 and that the improvement in the book position of the securities portfolios had involved the banks in drastic charge-offs to profits, reserves, and even capital accounts. In many banks, depositors had assumed most of the depreciation on securities in order to facilitate reorganization of the banks.

TABLE 31.—*Relationship between par value, market value, and book value of bonds held by 46 country banks in 1932–33*

Class of bonds	Ratio of—		
	Market value to par value	Book value to par value	Market value to book value
	Percent	*Percent*	*Percent*
Issuer:			
United States Government	97	101	96
Federal land banks	91	99	92
Joint stock land banks	18	54	33
Wisconsin municipalities	100	101	99
Other municipalities	88	97	91
Foreign governments	54	89	61
Foreign industrial concerns	39	71	55
Steam railroads	49	90	54
Utilities	58	90	64
Industrial concerns	56	89	63
Others	42	88	48
Quality:			
Grade 1 [1]	97	100	97
Grade 2	94	97	97
Grades 3 and 4	75	95	79
Grades 5 and 6	46	89	52
Grade 7 and other low grades	28	81	35
Nonrated municipals	97	100	97
Nonrated others	68	95	72
Defaulted municipals	47	88	53
Defaulted others	15	70	21
Maturity:			
Past due	37	70	53
1932–33	69	95	73
1933–34	74	95	78
1935–36	66	90	73
1937–42	70	93	75
1943–52	61	90	68
1953 and later	59	90	66

[1] Does not include United States securities and Federal land bank bonds which are shown above separately.

RELATION OF DEPRECIATION TO QUALITY AND MATURITIES OF SECURITIES

The data presented in table 31 show that the banks sustained much greater book losses on low-grade than on high-grade bonds during the depression, and suggest that book losses may also have varied with the maturities of securities. To test this latter point more thoroughly, table 32 was prepared from data on 14 of the 17 banks that were selected for special study. It shows that the book losses existing on the high- and medium-grade securities held by these banks in 1932–33 were considerably greater on long maturities than on short maturities, but that maturities had little relationship to the book losses existing on low-grade bonds.

By the time of the 1932–33 examinations there had been substantial write-downs in the book values of many securities, hence the above data do not reveal the full extent of the price depreciation on securities. A clearer picture of the relationship between price depreciation and the quality and maturity of securities is afforded by another study, recently made in the Bureau of Agricultural Economics, of the behavior of various classes of corporate bonds during the depression.[11]

It was the plan of the study to ascertain how investments assumed to have been made during 1929 in securities of various ratings and maturities would have fared during the period 1929–35. From 10 to 15 bonds listed on the exchanges in 1929 were selected to represent each of 30 rating-maturity classes, consisting of the 5 highest rating classes and 6 maturity classes of securities. In most classes there was a fairly close approach to equal representation of railroad, utility, and industrial bonds. The bonds were selected according to the ratings assigned in 1929 by one of the principal commercial-rating agencies, and once a bond was placed in a given rating class it was continued there regardless of any changes that may have been made in its rating after 1929.

TABLE 32.—*Percentage of market value to book value of bonds held by 14 of the 17 banks selected for special study at time of 1932–33 examinations, by grade and maturity of bonds* [1]

Grade of bonds	Ratio of market to book value for bonds maturing in—					
	1932–33	1934–35	1936–37	1938–42	1943–52	1953 and later
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
High	100	100	100	97	97	89
Medium	90	72	82	84	63	69
Low	40	44	27	40	34	38

[1] The data cover only 14 of the original 17 banks, 1 bank having sold all its bonds and 2 banks having closed before examination in 1932.

Table 33 shows the percentage relationships of the sums received and currently receivable, as of the last of June 1932, to the cost of the investments thus assumed to have been made in 1929. All of the securities in grades 1, 2, and 3 that matured during 1929 and 1930 had been paid by the last of June 1932, or refunded on terms that permitted the holder to receive cash payment, and the amounts received exceeded slightly the values of the securities in 1929, since the

[11] Garlock, Fred L. LOAN POLICIES OF COUNTRY BANKS AS INFLUENCED BY TYPE OF INVESTMENT HOLDINGS. U. S. Bur. Agr. Econ., Agr. Finance Rev. 1(2):20–26. [1938] [Mimeographed.]

securities were slightly below par at this earlier date. Relatively few of the securities maturing after 1932, however, had been paid or redeemed by the middle of 1932; the positions of investments in such securities were governed mainly by the prices quoted in 1932.

In 1932 the extent of the depreciation in the assumed investments clearly was related both to the quality, which presumably had been reflected by the 1929 ratings, and to the maturities of the securities composing the investments. The lower the ratings and the longer the maturities of the securities, the greater was the depreciation. Exceptions to these tendencies appearing in the table are probably due to the small samples that were used to represent the various rating-maturity classes of securities. In all, however, more than 400 securities were covered by the tabulation and this number should provide a reliable measure of the general relationships between redemptions and price movements and the ratings and maturities of securities.

TABLE 33.—*Percentages actually realized, and presumably realizable, as of the last of June 1932, from investments made in 1929 in corporate bonds of various ratings and maturities*

Rating of bonds in 1929	Proportion for bonds maturing in—						Average all bonds
	1929–30	1931–32	1933–34	1935–39	1940–49	1950 and later	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1	101	101	86	90	95	87	93
2	101	101	95	76	74	60	84
3	102	100	73	75	63	51	77
4	96	89	57	61	36	38	63
5	100	65	59	40	30	26	53
Average, all ratings	100	91	74	68	60	52	....

Conditions were unprecedentedly severe in 1932. More moderate conditions prevailed in 1931 and 1935. Though no data are presented for these years, price depreciation then also varied with quality (rating) and maturity. As of the end of June 1931, investments in high-grade securities, regardless of maturities, were above their 1929 values, but investments in medium-grade securities of long maturities were substantially depreciated and there was severe depreciation of investments in low-grade securities maturing after 1935. By the end of June 1935, investments in grade 1 securities of all maturities had recovered to levels above those of 1929, but there was still substantial depreciation of investments in securities of grades 2 and 3 having long maturities, and investments in most of the unmatured securities of grades 4 and 5 remained badly depreciated.

Depreciation differing so widely with various classes of securities, the book losses appearing in the securities accounts of individual banks were dependent to a large extent upon the types of securities in their portfolios. Only a few banks, excepting several which had transferred large amounts of depreciation to depositors' trusts, had book losses amounting to less than 10 percent of the book values of their securities at the time of 1932–33 examinations (table 34). Notwithstanding the wide differences among individual members of each group, the banks that survived without reorganization generally had less book loss than other banks, owing mainly to the fact that their bonds were superior in quality to those of other banks.

TABLE 34.—*Percentage book losses on all securities held at time of examination, 1932–33* [1]

[Array of percentages of book loss for individual banks]

16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4
Percent	*Percent*	*Pe cent*	*Percent*
5	([2,3])	35 (K)	10 (N)
6	([2,3])	[3] 36	13
12	[3] 5	53 (J)	38
15	[3] 5	69	44
17	17		44
18 (A)	27		44 (Q)
20	27		47 (M)
24	33		47
26	38		51
29	41 (E)		56
34	41		63
35 (C)	42 (H)		
38	48 (I)		
42	57 (G)		
43 (D)	61 (F)		
53 (B)			

[1] Letters in parentheses indicate the percentages for the 14 banks selected for special study. For description of groups of banks, see table 12.
[2] Appreciation.
[3] Indicates the percentages for banks which had eliminated a portion of depreciation through reorganization before date of examination.

EFFECTS OF DEPRECIATION UPON SOLVENCY OF BANKS

Opinion differs as to the proper treatment of depreciation on securities. It seems best, therefore, merely to compare the depreciation on securities with various portions of the banks' capital structures and leave it to the reader to judge how the solvency of the banks was affected by depreciation on securities. Such comparisons are made in table 35 for the 46 banks on which examination reports for 1932–33 were available.

It will be seen that in only 6 of the 46 banks was the depreciation on securities less than 100 percent of total profits and reserves, and in 4 of these the data reflect conditions after the banks had eliminated the weaker assets, including depreciation on securities, through the establishment of depositors' trusts. The banks which were to survive the depression without establishing depositors' trusts appear to have been much better fortified with profits and reserves, in relation to depreciation on securities, than any of the other groups of banks.

The middle section of table 35 shows the relation of depreciation on securities to the reserves, undivided profits and surpluses of the banks at the time of examination in 1932–33. When depreciation was more than 100 percent of these items, it was sufficient, if regarded as a loss, to impair the capital stock of a bank. Depreciation on securities exceeded 100 percent of the surpluses, profits, and reserves of all but 13 of the 46 banks, and of these, 5 had eliminated a portion of the depreciation on their securities by establishing depositors' trusts. The percentages generally were lower, however, in the cases of banks that survived without establishing depositors' trusts than in banks of the other groups.

Table 35.—*Relation of depreciation on securities to various portions of the capital structures of 46 banks at time of examination 1932–33* [1]

[Array of ratios for individual banks]

Ratio of depreciation to reserves and undivided profits				Ratio of depreciation to reserves, undivided profits, and surplus				Ratio of depreciation to all capital funds			
16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
54	([2,3])	167(J)	276(M)	19	([2,3])	[3] 7	25(N)	10	([2,3])	[3] 2	6(N)
77	([2,3])	528(K)	295	52(B)	([2,3])	167(J)	106	13	([2,3])	15(J)	9
111(A)	[3] 18	547	347	64	[3] 10	262(K)	131(M)	24	[3] 4	37	35
146(D)	[3] 40	([3,4])	449	83(D)	[3] 22	294	164	28	[3] 8	135(K)	41(M)
186	177(E)		503(Q)	95	85		176	29(A)	41(E)		53
187	205		531	96	114(E)		178	29(B)	48		58
199	267		610	103	139		188	31	53		78
209(C)	457		803	109	169(G)		230(Q)	40	61(G)		90
217	507(H)		913	110	172		266	53	64		100(Q)
240(B)	707(I)		2,512(N)	114	185(I)		275	58(D)	71		105
243	964		15,960	137(C)	188		449	58	84(H)		110
311	1,434(G)			170	276(H)			63	98		
465	1,437			177	342			63	106(I)		
563	1,716(F)			228	522			64(C)	184		
878	4,699			299	538(F)			94	319(F)		
1,386				456(A)				100			

[1] Letters in parentheses indicate the percentages for the 14 banks selected for special study. For descriptions of groups of banks, see table 12.
[2] Appreciation.
[3] Indicates the percentages for banks which had eliminated a portion of depreciation through reorganization before date of examination.
[4] Bank had no profits or reserves.

As may be seen in the third section of table 35, depreciation on securities equaled a large part of the total capital funds of most banks and in several banks was considerably in excess of the capital funds.

EFFECTS OF DEPRECIATION UPON LIQUIDITY OF BANKS

It was shown in figure 10 that 15 of the 17 banks selected for special study had liquidated by 1932–33 about half of the securities which they held in 1929. The approximate liquidation obtained on securities of various grades and maturities is shown in table 36. Virtually all of the high-grade securities maturing during the period 1929–32 inclusive, had been liquidated by the time the banks were examined in 1932 or 1933. On such securities there apparently was no appreciable loss of liquidity during the depression. Sales and collections of other securities maturing before 1933, even those of low grade, were also very large; and more than half of the high- and medium-grade bonds maturing during 1933 and 1934, and of high-grade bonds maturing after 1950 had been sold by the time the depression reached its worst stages. There were substantial sales of high- and medium-grade bonds of other long maturities, but of the low-grade securities only those of short terms were liquidated extensively.

Of the securities held by the banks at time of examination in 1932–33, 73 percent were depreciated more than 10 percent and 69 percent were depreciated more than 20 percent from their book values. Table 37 shows the percentages of the securities in various grade-maturity classes on which there were book losses exceeding 10 and 20 percent, respectively. It seems clear that virtually all of the low-grade securities and longer-term medium-grade securities had depreciated to the point where banks could not afford to sell them.

TABLE 36.—*Percentage collections and sales during period 1929 to 1932–33, of bonds held in 1929 by 15 selected banks, distributed according to grade and maturity of bonds* [1]

Grade of bonds	Proportion for bonds maturing in—				
	1929–32	1933–34	1935–39	1940–49	1950 and later
	Percent	*Percent*	*Percent*	*Percent*	*Percent*
High	98	74	44	43	58
Medium	86	60	29	46	31
Low	78	16	22	21	28

[1] These data are based on par values so as to eliminate partial write-offs of book value. However, as the entire values of securities occasionally were written off, the data may include some items that were written off instead of collected or sold.

TABLE 37.—*Percentage of bonds held by 14 of the 17 banks selected for special study at time of examination in 1932–33 that contained book losses exceeding 10 and 20 percent respectively, by grade and maturity of bonds* [1]

Grade of bonds	Proportion for bonds maturing in—					
	1932–33	1934–35	1936–37	1938–42	1943–52	1953 and later
Bonds depreciated more than 10 percent from book value:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
High	0	0	0	1	3	51
Medium	55	79	63	76	90	97
Low	93	84	95	91	98	99
Bonds depreciated more than 20 percent from book value:						
High	0	0	0	1	3	20
Medium	9	79	28	37	90	84
Low	93	84	95	91	98	98

[1] The data cover only 14 of the original 17 banks, 1 bank having sold all its bonds and 2 banks having been closed before examination in 1932.

The data in tables 36 and 37 indicate clearly that banks had the least difficulty, so far as loss of liquidity was concerned, with high-grade securities, and with short-term securities. High-grade securities were strongly resistant to price depreciation and short-term securities were paid out in large part before the depression reached its most acute stages. Medium- and low-grade securities of other than short maturities, however, became sufficiently depreciated to discourage sales before bankers could foresee the need for extensive liquidation. In these latter classes of securities, which unfortunately bulked large among the banks' holdings in 1929, there was little liquidity during the depression.

From the independent study of the behavior of corporate bonds, referred to at an earlier point, it appears that the experience of Wisconsin banks with bonds of low and medium grades was not exceptionally bad. The percentages of corporate bonds that were depreciated more than 20 percent from their 1929 values at the end of June 1932 are shown in table 38. The only types of bonds of which large numbers did not become badly depreciated were grade 1 bonds of diversified maturities, grade 2 bonds maturing within 5 years, grades 3 and 4 bonds maturing within 3 years, and grade 5 bonds maturing within 1 year.

EXAMINATION POLICY WITH RESPECT TO SECURITIES

Examination procedure with respect to the securities held by banks has involved three features—itemizing and summarizing the securities, classifying portions of the securities as slow, doubtful, or loss, and commenting upon various points that were considered deserving of special mention. The principal changes in supervisory attitude toward the securities holdings of banks may be illustrated by comparing the practices of examiners in 1929, 1932, and 1935.

TABLE 38.—*Percentages of total numbers of corporate bonds included in various rating-maturity classes that were depreciated more than 20 percent from their 1929 values as of the last of June 1932*

Rating of bonds in 1929	Proportion for bonds maturing in—						Average all bonds
	1929-30	1931-32	1933-34	1935-39	1940-49	1950 and later	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1	0	0	27	27	7	27	16
2	0	0	8	47	60	73	31
3	0	0	40	47	60	67	39
4	7	27	70	87	100	67	63
5	0	40	73	87	100	93	66
Average all ratings	1	15	44	50	65	73	....

ITEMIZING AND SUMMARIZING THE SECURITIES

For many years examiners have prepared itemized lists of the securities owned or held by the banks as of each examination date. On these lists the securities have been described by name of issuing organization, interest rate, and maturity; and opposite the description of each security the par, book, and market values have been entered. At the end of the lists summaries have been placed, that show the distribution of securities according to the type of issuing organization. This method of itemizing and summarizing the securities was followed in each of the years 1929, 1932, and 1935, and the summaries were used as one basis for determining whether the securities holdings of the banks were adequately diversified.

In addition to classifying and summarizing the securities in this way, State bank examiners since 1928, and probably for a longer period, have entered the ratings of securities on their reports, and have prepared summaries showing the distribution of securities according to rating. The summaries found on reports dated from 1928 to 1930 contained only rough percentage distributions such as "A=42 percent; B=38 percent; C=8 percent; NL (not listed)=12 percent; total=100 percent."

Though the securities holdings of banks occasionally were criticized in 1928, 1929, and 1930, it does not appear that supervisory authorities gave very careful attention to the quality of the securities held by Wisconsin banks until 1931. In that year national bank examiners began entering the rating of securities on their reports and both State and national examiners began making careful summaries which showed the book and market values and the appreciation or depreciation of securities in each rating class. This sudden development or extension of interest in the quality of securities appears to have arisen primarily from the need to find a practicable method of dealing with the depreciation on securities.

A further development in the use of ratings had its inception in 1933 after the bank "clean-up" program had been inaugurated. At this time examiners began arranging the securities in four groups. Group I included securities issued or guaranteed by the United States Government, securities issued by Federal land banks and Federal intermediate credit banks, unrated State, county, and municipal securities not considered to be of substandard quality, and rated bonds of the four upper grades. In group II were placed securities issued by joint-stock land banks, substandard securities issued by

States, counties, and municipalities, bonds rated below the upper four grades, and unrated low-grade bonds of various kinds. Group III included defaulted issues, and group IV was reserved for stocks.

The principal significance of the groupings has grown out of their use as criteria for appraising the investment policies of banks. By gradual steps since 1932 supervisory authorities have been given enlarged powers, or have become more disposed to utilize existing powers, over the investment policies of banks. In 1933, the State banking department was given disciplinary power against the officers of banks whose loan and investment policies might be regarded as prejudicial to the best interests of the institutions which they manage. In 1936 the Comptroller of the Currency first exercised the authority granted his office in 1927 to define the grades of securities which national banks and State member banks should be authorized to purchase. The definitions given by the Comptroller of the Currency and the administrative policies of all supervisory agencies have been such as to discourage the purchase, and encourage the elimination, of securities falling within groups II, III, and IV.

CLASSIFICATION OF SECURITIES AS SLOW, DOUBTFUL, OR LOSS

In discussing the loans of banks it was pointed out that items considered by examiners to be deficient in quality were classified as slow, doubtful, or loss. The same system of classification was used in connection with the securities holdings of banks. Owing to the way in which the system was applied it is well to discuss the classification of depreciation on securities separately from the classification of market values of securities.

TABLE 39.—*Examiners' classification of depreciation on, and market value of, securities held by country banks in 1929, 1932, and 1935*

Item and year	Banks that had item	Banks in which specified percentages of item were classified by examiners as—									Banks in which item was not classified by examiner
		Slow			Doubtful			Loss			
		100 percent	50 to 99 percent	1 to 49 percent	100 percent	50 to 99 percent	1 to 49 percent	100 percent	50 to 99 percent	1 to 49 percent	
Depreciation on—											
Claims and judgments:	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
1929	2	0	0	0	0	0	0	2	0	0	0
1932	4	0	0	0	1	0	0	1	0	0	2
1935	2	0	0	0	0	0	0	2	0	0	0
Stocks:											
1929	6	0	0	0	2	[1] 1	0	2	0	[1] 1	1
1932	8	0	0	0	2	0	0	4	0	0	2
1935	2	0	0	0	1	0	0	0	0	0	1
Defaulted bonds:											
1929	15	1	0	0	1	0	2	6	0	0	7
1932	36	3	[1] 1	0	3	0	[1] 1	25	3	0	1
1935	16	0	0	0	1	0	0	11	0	0	1
Other low-grade bonds:											
1929 [2]	52	1	0	0	11	1	0	6	0	0	33
1932	40	3	0	0	1	1	0	4	1	2	28
1935	19	0	0	0	14	0	0	0	1	0	4
High- and medium-grade securities:											
1929 [3]											
1932	37	3	0	0	0	0	0	4	0	0	30
1935	2	2	0	0	0	0	0	0	0	0	0

[1] Same bank; item classified as doubtful and loss.
[2] Includes depreciation on high- and medium-grade bonds.
[3] Included with depreciation on low-grade bonds.

TABLE 39.—*Examiners' classification of depreciation on, and market value of securities held by country banks in 1929, 1932, and 1935*—Continued

Item and year	Banks that had item	Banks in which specified percentages of item were classified by examiners as—									Banks in which item was not classified by examiner
		Slow			Doubtful			Loss			
		100 percent	50 to 99 percent	1 to 49 percent	100 percent	50 to 99 percent	1 to 49 percent	100 percent	50 to 99 percent	1 to 49 percent	
Market value of—											
Claims and judgments:	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
1929	11	5	[2] 2	0	0	0	[2] 1	0	0	0	4
1932	8	4	0	0	0	0	0	0	0	0	4
1935	5	1	2	0	0	0	0	0	0	0	2
Stocks:											
1929	23	9	1	1	0	0	0	0	0	1	11
1932	18	5	0	0	1	0	1	0	0	0	11
1935	5	1	0	0	0	0	0	0	0	0	4
Defaulted bonds:											
1929	31	5	0	3	2	[1] 1	0	1	0	[1] 1	19
1932	40	4	0	0	1	0	0	0	0	0	35
1935	24	0	1	0	0	0	0	0	0	0	23
Other low-grade bonds:											
1929 [3]	56	0	0	0	0	0	0	0	0	0	56
1932	42	0	0	0	0	0	0	0	0	0	42
1935	28	0	0	0	0	0	0	0	0	0	28
High- and medium-grade bonds:											
1929 [4]											
1932	41	0	0	0	0	0	0	0	0	0	41
1935	29	0	0	0	0	0	0	0	0	0	29

[1] Same bank; item classified as doubtful and loss.
[2] Same bank; item classified as slow and doubtful.
[3] Includes high- and medium-grade bonds.
[4] Included with low-grade bonds.

CLASSIFICATION OF DEPRECIATION ON SECURITIES

Table 39 has been prepared to show how many of the 58 country banks included in the study had depreciation at various dates on several specified classes of securities, and how the depreciation was classified by examiners. In certain cases only fractional parts of the depreciation on securities were classified. The table shows whether such fractional parts were greater or less than 50 percent.

There were so few banks for which examiners reported depreciation on claims and judgments and on stocks that it is difficult to form a conclusive opinion as to examiners' methods of classifying such items. It appears, however, that depreciation on claims and judgments usually was classified as loss, while that on stocks was classified as either doubtful or loss. With claims and judgments and with many local stocks there were no price quotations from which to calculate a depreciation from market values, and the element listed as depreciation was actually the examiner's estimate of probable loss.

With depreciation on defaulted securities the data are more informative. Depreciation on such securities was reported for 15 banks in 1929, but in 7, or virtually half of them, the depreciation was not classified as slow, doubtful, or loss. By 1932 and continuing through 1935 this practice had been changed so that usually the depreciation on defaulted securities was classified as loss, though in 1932 the slow and doubtful classifications were used in a number of cases.

The 1929 examination reports did not distinguish between low-grade and other current bonds, and there apparently was no official policy with regard to the classification of depreciation on these respective grades of securities. In table 39, data covering depreciation on all current bonds are placed for the year 1929 in the space provided for depreciation on low-grade bonds. Of the 52 banks which were reported to have depreciation on current bonds in 1929, 33, or more than half, escaped classification of the depreciation as slow, doubtful, or loss. Among the remaining banks, depreciation on current bonds was classified most often as doubtful, though the classification loss was used frequently. Few banks had serious depreciation problems in 1929 and it probably was assumed by both bankers and supervisory officials that the situation would be corrected shortly by improved market conditions.

By 1932 the practice of distinguishing between the depreciation on low-grade bonds and the depreciation on other current bonds was well established. During the latter part of 1931 and early 1932, supervisory officials for national banks experimented with the plan of classifying the depreciation on securities rated below the upper four grades as 75 percent doubtful and 25 percent loss. There is no evidence in the data at hand that State bank supervisory officials ever adopted this plan; and its use among national banks soon had to be discontinued, as many banks were unable to charge off even 25 percent of the depreciation on low-grade bonds. Most of the examination reports covered by this study were made for dates in 1932 after the abandonment of the plan. In 28 of the 40 banks which had depreciation on low-grade bonds, the depreciation was not classified in any way. Among the remaining banks, depreciation on low-grade bonds was classified most often as wholly or in part loss, but in a number of cases, as slow or doubtful.

After adoption of the bank "clean-up" program and the introduction of deposit insurance, depreciation on securities rated below the upper four grades usually was classified as doubtful. That method of classification is reflected by the data for 1935.

Depreciation on high- and medium-grade securities generally was disregarded during 1932 in preparing the schedules of slow, doubtful, and worthless assets. In only 7 of the 37 banks which had depreciation on the upper four grades of securities was the item classified by examiners. In 4 cases it was classified as loss and in 3 cases as slow. By 1935 most of the banks showed appreciation in their high- and medium-grade securities accounts. Examiners classified the depreciation on such securities as slow in the 2 banks for which depreciation was reported.[12]

CLASSIFICATION OF MARKET VALUE OF SECURITIES

At no time during the period 1929–35 were the market values of current bonds classified by examiners as slow, doubtful, or loss (table 39). The only items ever so classified were the values, market or estimated, of bonds in default, stocks, claims, and judgments; and usually these, if classified at all, were placed in the slow category.

[12] In 1938 Federal supervisory officials adopted the policy of valuing low-grade current bonds at the average market price for the 18 months immediately preceding examination and of deducting 50 percent of the net depreciation in computing the banks' net sound capitals. The depreciation of high- and medium-grade bonds is no longer shown on their examination reports.

Considering the large elements of risk inherent in low-grade securities, it seems unfortunate that such securities were not classified before the depression in such a way as to indicate their hazardous character. It would not have been inappropriate to classify a considerable portion of the market values of such securities as slow, even though the bonds were readily salable, for this classification, as applied to loans, referred mainly to the presence of risk rather than to mere delay in payment, and low-grade bonds contained risks comparable with those inherent in the types of loans that were classified as slow. Once the bonds were badly depreciated it was too late for examination procedure to be of aid in avoiding banking risks. Since early in 1934, fortunately, supervisory officials have classified low-grade bonds as substandard risks. This has been done by means of groupings, however, rather than by use of the slow, doubtful, and loss schedule.

ATTITUDES REFLECTED BY STATE BANK EXAMINERS' COMMENTS

In addition to itemizing, summarizing, and classifying the securities holdings of banks, examiners sometimes commented upon or made recommendations regarding such holdings. No record of the comments of national bank examiners was obtained, but a record of State bank examiners' comments indicates that it was not their practice during the period covered by this study to make extended written statements covering the securities.

In 1929 examiners commented upon the securities of only 11 of the 41 State banks possessing securities accounts (table 40). Considering the fact that low-grade securities amounted to more than 25 percent of the total securities holdings of 24 of the banks in 1929, it seems clear that many more banks might properly have received pointed criticism. Moreover, the depreciation problem was not severe in 1929 and general conditions need not have deterred examiners from commenting adversely upon the banks' holdings.

TABLE 40.—*Summary of comments made by examiners from State Banking Department on the bonds held by selected State banks in Wisconsin in 1929, 1932, and 1935*

Nature of comments	Comments made by examiners		
	1929	1932	1935
Quality of securities:	*Number*	*Number*	*Number*
Bond account good	2	1	2
Bonds not adequately diversified	4	0	1
Bonds of poor quality	1	1	1
Total	7	2	4
Recommendations:			
Increased reserves for depreciation needed	4	3	0
Depreciation on defaulted bonds should be charged off	1	0	0
Defaulted bonds should be eliminated	0	1	0
Bonds should be carried at cost instead of par	0	0	1
Bonds need attention	0	0	1
Total	5	4	2
Condition of banks:			
Bank has no secondary reserves	1	0	0
Depreciation impairs capital	0	2	0
Bonds are banks' greatest problem	0	3	1
Total	1	5	1
Total comments	13	11	7
Banks covered by comments	11	9	7
Banks not covered by comments	30	20	14

By 1932 there was little use in commenting on the quality of the securities or on the facts that the securities were depreciated and that reserves to cover depreciation were needed. The bond summaries showed these facts all too clearly and little could be done about the situation either by bankers or by supervisory officials. Such comments as were made by examiners, most of them reciting the need for reserves and pointing to the seriousness of the situation, were mainly in the nature of occasional added comment on self-evident conditions. At this time examiners, as a rule, merely stated the amount of the depreciation that had occurred. Such statements were not included as comments in preparing the above tabulation.

By 1935 most of the depreciation had been eliminated from the securities portfolios of surviving banks, and the refined summaries and classifications then in use made it unnecessary for examiners to comment at length upon the quality of the securities, unless they were prepared to recommend a substantial revision of the banks' holdings. Whether the effort eventually made to improve the quality of the securities held by banks was not yet under way, or whether it was conducted by direct correspondence with the banks, is not revealed by the data at hand, but examination reports contained few suggestions for the banks.

CHANGES IN FINANCIAL CONDITION OF COUNTRY BANKS

It is desirable to consider more directly and comprehensively the changes that took place during the depression in (1) the assets and liabilities of country banks, (2) their earnings and expenses, and (3) examiners' appraisals of the conditions of banks.

Assets and Liabilities

At the beginning of the depression the liabilities of country banks in Wisconsin were represented chiefly by time and savings deposits. For the banks covered by this study, the average percentages of time and savings deposits to total deposits in 1929 were as follows: Group 1 banks, 61 percent; group 2 banks, 69 percent; group 3 banks, 70 percent; group 4 banks, 69 percent. Time and savings deposits ranged in different banks from 33 percent to 88 percent of total deposits. The resources of country banks consisted mainly of local capital loans, the capital securities of large corporations, and the obligations of various political units. A substantial part of the assets was represented by low-grade bonds, poorly protected loans, and real estate, all of which involved large risks of loss for the banks.

During the depression, a severe drain upon the liquid resources of the banks developed from shrinkages of deposits. Declining values created extensive losses and depreciation in their assets. The banks were not prepared to withstand such strains. Their lending power was almost completely destroyed, many could not meet the demands of depositors, and the majority sustained capital impairments.

SHRINKAGES OF DEPOSITS

The extent to which bank deposits declined during the depression is indicated by table 41, which covers such of the 58 country banks included in the study as were in active operation on June 30, 1932, and June 30, 1933. Average deposit shrinkages were smaller for

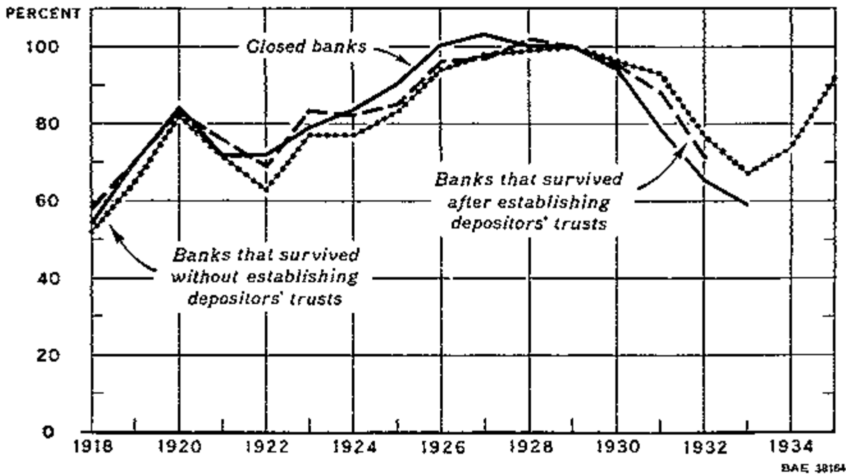

FIGURE 11.—TOTAL DEPOSITS OF SEVERAL GROUPS OF COUNTRY BANKS, 1918–35.

(Average total deposits during 1929=100)

The deposits of country banks in Wisconsin have increased during periods of advancing prosperity and decreased during periods of recession. In this figure the deposits of banks that established depositors' trusts are not carried beyond 1932, as they were reduced abnormally by waivers in later years.

banks that survived the depression without establishing depositors' trusts than for banks in other groups, but in each group the shrinkages sustained by individual banks varied over a wide range. By 1933 deposits in many of the banks had declined to levels more than 40 percent below the levels of 1929, and in some banks the shrinkages

TABLE 41.—*Percentage deposit shrinkages from 1929 to June 30, 1932, and June 30, 1933* [1]

[Array of percentages of deposits for individual banks]

Deposit shrinkages to June 30, 1932			Deposit shrinkages to June 30, 1933		
16 banks in group 1	16 banks in group 2	18 banks in groups 3 and 4	16 banks in group 1	16 banks in group 2	7 banks in groups 3 and 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
(2)	13	19 (Q)	7	22 (E)	33
4	14 (E)	23 (K)	14	31 (F)	37 (P)
10	15	24	16	33	38 (J)
11	17 (F)	26	25	33 (I)	42 (M)
13 (C)	19	28 (J)	28 (C)	[3] 43	44
14	19 (I)	29	30	49 (H)	[3] 44 (K)
20	27	31	31	[3] 49	44
21	27	34 (M)	32	[3] 49	
25	28 (H)	37 (P)	35 (D)	50 (G)	
27	34	38 (L)	35	[3] 52	
28	37 (G)	38 (N)	39 (A)	[3] 56	
30 (D)	40	41	41	[3] 56	
32 (A)	[3] 50	41	43	[3] 57	
38	[3] 62	45	43	[3] 58	
40	[3] 65	47	57	[3] 64	
47 (B)	[3] 76	48	59 (B)	[3] 71	
		57			
		[3] 67			

[1] Letters in parentheses indicate the percentages for the banks selected for special study. For description of groups of banks, see table 12.
[2] Increase of deposits.
[3] Indicates percentages for banks which had "cut" in deposits due to reorganization before dates shown above.

exceeded 50 percent. An interesting feature of the deposit shrinkages is that deposits of the several groups of banks began declining at different dates (fig. 11). The deposits of closed banks started declining in 1927, whereas the decline for banks that established trusts began in 1928, and that for banks surviving without establishing trusts began in 1929.

Though the shrinkages of deposits from 1929 to 1933 were intensified by "withdrawals" for purposes of hoarding, their basic causes lay in the business recession and its effects upon the Wisconsin economy. Country-bank deposits in Wisconsin have increased during periods of advancing national prosperity, such as 1918–20 and 1922–29, and decreased during periods of receding prosperity, such as 1920–22 and 1929–33 (fig. 11). Business expansion and rising farm prices usually have required, and provided a basis for, enlarged extensions of credit, whereas adverse business developments and falling farm prices have reduced the demand for credit and the basis on which it could safely be extended. With a prolonged and severe business recession, such as that following 1929, a drastic decline of bank deposits was to be expected in Wisconsin as well as elsewhere, even in the absence of withdrawals for hoarding purposes.

Contrary to the expectations of many bankers, who considered time and savings deposits to be much more stable than demand deposits, the two types of deposits declined in almost identical proportions during the depression following 1929 (fig. 12). Though demand deposits probably were the more subject to seasonal, and other short-run, fluctuations, longer run variations in demand deposits and time deposits were similar throughout the entire period 1918–35.[13] During times of business expansion, both demand and time accounts mounted rapidly, producing similar problems of investment for the banks, and during times of business contraction, both classes of deposits declined substantially, producing similar problems of liquidation. The experiences of country banks in Wisconsin from 1918 to 1935 give little, if any, support to the frequently expressed view that time and savings deposits require less liquid assets for their protection than do demand deposits.

ADJUSTMENTS TO DECLINING DEPOSITS

Shrinkages of deposits during the depression placed the banks under pressure to reduce their loans and investments. The banks did not possess cash reserves of sufficient size to meet the declines in their deposits, and their ability to borrow from other banks was limited. Moreover, many banks regarded borrowing as a measure to be adopted only as a last resort. A considerable part—often the principal part—of the funds needed to meet deposit shrinkages was therefore obtained by liquidating loans and investments.

The extent to which the 17 banks selected for special study reduced their loans and investments from 1929 to the end of 1932 is shown in table 42. All 4 of the banks that survived the depression without establishing depositors' trusts, as compared with only 2 of the remaining 13 banks, made reductions exceeding 30 percent. Table 42 also shows the percentage reductions in loans and investments that would have been required to equal the shrinkages of deposits that had taken place by the end of 1932 (or to the date of reorganization or failure

[13] An exception is noted in the case of the banks that survived without establishing depositors' trusts. Time deposits were rather stable in this group of banks during the depression of 1920–22, but did not prove stable in 1929–33.

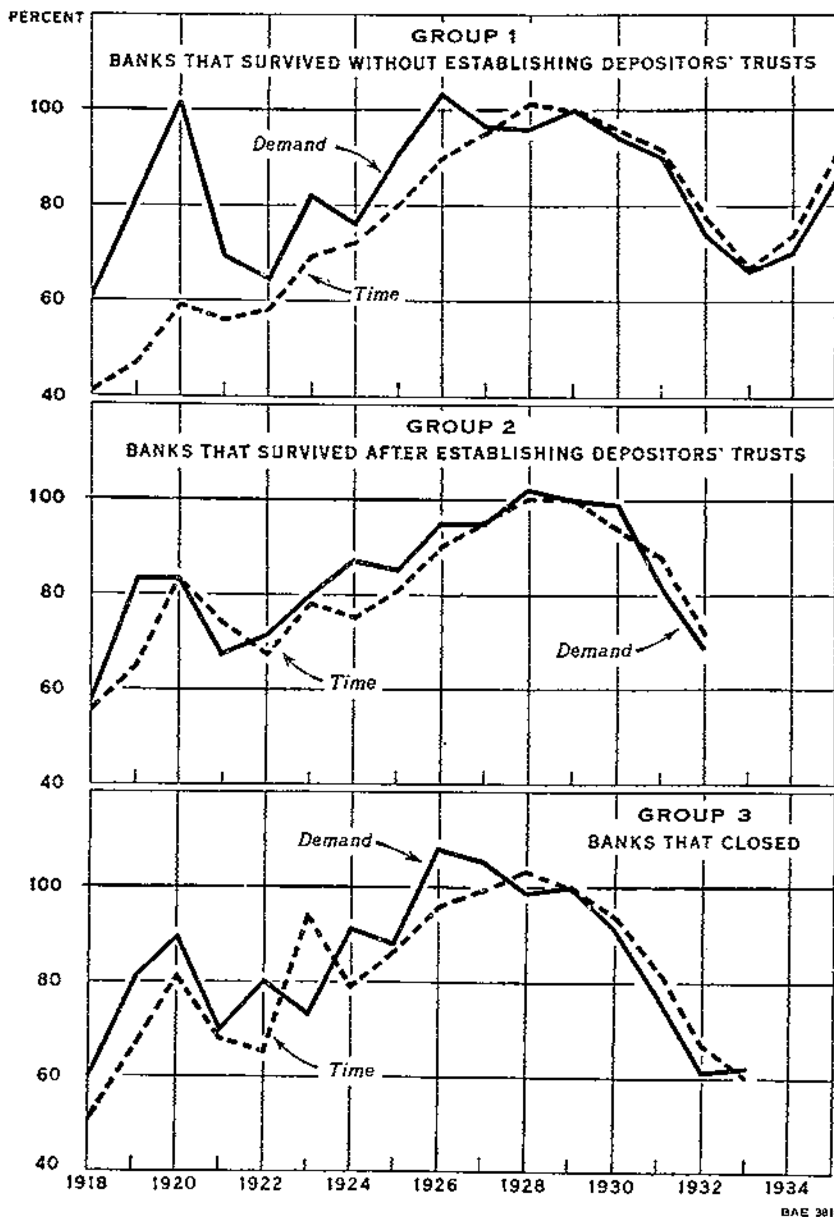

FIGURE 12.—DEMAND AND TIME DEPOSITS OF SEVERAL GROUPS OF COUNTRY BANKS, 1918–35.

(Averages of deposits during 1929=100)

Demand and time deposits have followed similar trends, though demand deposits have been the more quickly responsive to changes in economic conditions.

if such occurred before December 31, 1932) and the excess or deficit of the reductions actually accomplished over those required to equal the shrinkages of deposits. Bank C was the only bank in which the reduction of loans and investments was as great as the decline in deposits. Comments in column 7 of table 42 indicate the measures that were taken by other banks to meet deposit shrinkages. Heavy borrowing did not prevent many from almost exhausting their reserve funds.

TABLE 42.—*Percentage reduction of the outstanding loans and investments of 17 selected banks, 1929–32, and percentage reduction required to equal deposit shrinkages, 1929–32*

Group and bank [1]	Reduction of outstanding loans and investments from 1929 to Dec. 31, 1932			Reduction of total outstanding loans and investments required to equal deposit shrinkages to Dec. 31, 1932	Excess (+) or deficit (−) of actual over required reduction	Additional measures employed to meet shrinkage of deposits, 1929–32
	Loans	Investments	Total loans and investments			
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	
Group 1:						
Bank A	36	34	36	39	−3	Reduced cash reserves.
Bank B	29	77	38	54	−16	Almost exhausted reserves and borrowed heavily.
Bank C	58	−36	32	21	+11	None required.
Bank D	44	10	37	44	−7	Reduced cash reserves and borrowed lightly.
Group 2:						
Bank E	−10	37	3	26	−23	Reduced cash reserves, liquidated real estate, and borrowed lightly.
Bank F	34	5	19	31	−12	Reduced cash reserves and borrowed lightly.
Bank G	27	28	27	50	−23	Almost exhausted reserves and borrowed heavily.
Bank H	36	28	31	38	−7	Reduced reserves.
Bank I	26	10	20	34	−14	Reduced reserves and borrowed moderately.
Group 3:						
Bank J	7	85	21	36	−15	Almost exhausted reserves and borrowed moderately.
Bank K [2]	19	27	22	24	−2	Borrowed lightly.
Group 4:						
Bank L [3]	24	70	25	52	−27	Almost exhausted reserves and borrowed heavily.
Bank M	17	24	18	41	−23	Do.
Bank N [4]	35	65	41	64	−23	Almost exhausted reserves and borrowed moderately.
Bank O [5]	22	60	28	35	−7	Almost exhausted reserves and borrowed lightly.
Bank P	13	100	16	44	−28	Almost exhausted reserves and borrowed heavily.
Bank Q	30	1	20	26	−6	Almost exhausted reserves and borrowed moderately.

[1] For description of groups of banks, see table 12.
[2] To day before reorganization, September 1932.
[3] To date of failure, November 1932.
[4] To date of failure, December 1932.
[5] To date of failure, January 1932.

Despite shrinkages in their deposits, country banks were expected throughout the depression to make new loans and renew outstanding loans in accordance with the needs of their borrowers. As it was their business to serve local credit requirements, the banks generally lent in substantial volume, and extended the customary renewals, during the first year or so of the depression.[14] Moreover, securities

[14] See figs. 5 and 6.

were purchased in considerable volume, principally to replace liquidated securities, though some banks increased their holdings.[15] The depths to be reached by the depression were not foreseen and the banks continued operations, as far as possible, on a normal plane. As the depression deepened, however, more and more of the proceeds obtained by liquidating assets were absorbed by depositors and the banks had to reduce drastically their new loans and investments. By the end of 1932, both lending and investment had virtually ceased. Moreover, the banks were finding it necessary to exert heavy pressures upon borrowers for the liquidation of outstanding lines of credit. Most of the securities held by the banks had become frozen through depreciation.

Except as the banks borrowed from other institutions, the funds used both for meeting deposit shrinkages and for carrying new loans and investments were obtained principally by realizing upon the earning assets held at the beginning of the depression. By the end of 1932 all the 17 banks, except bank P, had liquidated such assets in an amount exceeding their needs for meeting deposit shrinkages (table 43). The difference between the liquidations shown in table 43 and the net reductions of outstanding loans and investments shown in table 42 represents the new loans and investments which were still outstanding at the end of 1932. It appears that the banks, on the average, used only about half the funds obtained by liquidating assets held at the beginning of the depression for meeting deposit shrinkages. The remainder was used for carrying loans and investments made after 1929.

TABLE 43.—*Percentage liquidation, 1929–32, of loans and investments held in 1929 by 17 selected banks and percentage liquidation required to meet deposit shrinkages, 1929–32* [1]

Group and bank [2]	Liquidation to Dec. 31, 1932, of loans and investments outstanding in 1929			Liquidation of total loans and investments required to meet deposit shrinkages to Dec. 31, 1932	Excess (+) or deficit (−) of actual in relation to required liquidation
	Loans	Investments	Total loans and investments		
	Percent	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:					
Bank A	50	49	50	39	+11
Bank B	54	79	59	54	+5
Bank C	82	57	75	21	+54
Bank D	74	46	68	44	+24
Group 2:					
Bank E	53	53	53	26	+27
Bank F	48	33	41	31	+10
Bank G	54	48	53	50	+3
Bank H	55	52	53	38	+17
Bank I	62	50	57	34	+23
Group 3:					
Bank J	41	85	49	36	+13
Bank K [3]	39	43	41	24	+17
Group 4:					
Bank L [4]	59	100	59	52	+7
Bank M	53	52	53	41	+12
Bank N [5]	64	83	68	64	+4
Bank O [6]	38	65	42	35	+7
Bank P	38	100	40	44	−4
Bank Q	56	45	52	26	+26

[1] Includes liquidations resulting from collections, sales, conversions, refundings, charge-offs, and appropriations of collateral.
[2] For description of groups of banks, see table 12.
[3] To day before reorganization, September 1932.
[4] To date of failure, November 1932.
[5] To date of failure, December 1932.
[6] To date of failure, January 1932.

[15] See fig. 10.

In view of the difficulties experienced by the banks in meeting deposit shrinkages, it may appear that they were unwise in using so large a part of the proceeds of liquidated assets for making new loans and investments. This conclusion has some justification with respect to the purchase of securities, but it must be remembered that security purchases were not large after deposit shrinkages had begun seriously to deplete the banks' reserves. It would appear to be more proper to question the types, rather than the volume, of the securities purchased, inasmuch as most of the securities were of medium and low grades and bore long maturities. The banks' lending activities seem to have been justified by the fact that their borrowers needed credit and it was one of the banks' functions to meet local credit requirements.

Indeed, it was unfortunate from the standpoint of both the banks and their communities that the banks were not able to extend credit more freely after the middle of 1931. Borrowers undoubtedly needed considerable amounts of the outstanding loans which they were forced to pay and could have used advantageously more new credit than they received. The restriction of credit handicapped local farming and business operations in addition to forcing personal sacrifices upon individual borrowers. For the failure of loan service which occurred during these years the banks also have had to pay dearly. The many new credit institutions that were established to relieve the credit stringency created by the curtailment of bank loans have remained in existence and now compete with banks.

IMPAIRMENT OF SOLVENCY

In addition to the difficulties encountered in meeting depositors' demands, and the failure to serve borrowers' requirements adequately, the banks became so seriously involved with doubtful or insecure assets during the depression that their solvency was imperiled, if not lost (table 44). During 1929 the doubtful or insecure assets generally averaged less in amount than the banks' capital funds, though in some banks a major part of the capital funds was absorbed by these items, and in four banks, J, L, O, and P, such items exceeded the capital funds. By the end of 1932, the conditions of banks had changed to such an extent that only three banks, B, C, and D, had sufficient capital funds to cover the doubtful or insecure assets. Several of the banks had failed or had been reorganized, and it was clear that most of the remaining banks were in perilous condition. Of the banks which, at the end of 1932, had poorly protected loans and depreciation on real estate and securities in excess of the capital funds, only one bank, A, escaped failure or reorganization.

TABLE 44.—*Percentage of poorly protected loans and of depreciation on securities and real estate to the capital funds of 17 selected banks in 1929 and 1932*

Group and bank [1]	Average for 1929			December 31, 1932		
	Poorly protected loans and depreciation on real estate	Depreciation on securities	Poorly protected loans and depreciation on securities and real estate	Poorly protected loans and depreciation on real estate	Depreciation on securities	Poorly protected loans and depreciation on securities and real estate
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:						
Bank A	55	2	57	83	32	115
Bank B	24	4	28	73	26	99
Bank C	3	2	5	14	56	70
Bank D	21	2	23	27	54	81
Group 2:						
Bank E	42	5	47	63	38	101
Bank F	20	10	30	61	310	371
Bank G	94	4	98	129	66	195
Bank H	1	12	13	19	86	105
Bank I	24	3	27	60	94	154
Group 3:						
Bank J	112	0	112	317	12	329
Bank K	69	12	81	[2] 209	[2] 145	[2] 354
Group 4:						
Bank L	171	0	171	[3] 309	[3] 2	[3] 311
Bank M	66	2	68	166	42	208
Bank N	97	2	99	[4] 184	[4] 8	[4] 192
Bank O	144	2	146	[5] 216	[5] 18	[5] 234
Bank P	302	0	302	[6] 346	[6] 0	[6] 346
Bank Q	17	9	26	27	93	120

[1] For description of groups of banks, see table 12.
[2] Data as of day before reorganization, September 1932.
[3] Data as of date of failure, November 1932.
[4] Data as of date of failure, December 1932.
[5] Data as of date of failure, January 1932.
[6] Bank virtually doubled capital funds by assessment in 1931; hence increase in poorly protected loans and depreciation on securities and real estate was much greater than change in above percentages would indicate.

CAUSES OF DIFFICULTY

The difficulties encountered by the banks in trying to meet depositors' demands, serve the credit requirements of their communities, and maintain their own solvency, arose from the fact that their assets could not be adjusted readily to changes in the volume of deposits or in the level of values. For the most part their securities were long-term obligations of medium and low grades which became heavily depreciated, and consequently unsalable, during the depression and the loans represented capital advances on which the annual liquidation was small even under the most favorable conditions. The liquidations obtained on various classes of assets were approximately as is shown in the following tabulation:

Type of assets, classified as of 1929

	Liquidated 1929 to end of 1932, percent
1, commercial paper, call loans, and local loans appearing to be payable within 1 year from borrowers' current incomes	100
2, high-grade securities maturing 1929–32. (Includes securities issued or guaranteed by the U. S. Government, Federal land bank bonds, nonrated municipals, and other bonds of grades 1 and 2)	100
3, medium-grade securities maturing 1929–32. (Includes securities of grades 3 and 4.)	85
4, low-grade securities maturing 1929–32. (Includes securities below grade 4.)	75
5, high-grade securities maturing 1933–34	75
6, medium-grade securities maturing 1933–34	60
7, high-grade securities maturing 1935 and later	50
8, conservatively made local loans appearing to depend for liquidation within 1 year on the liquidation or refinancing of borrowers' nonseasonal working capital, chattels, and securities:	
A, To farmers	40
B, To others	60
9, conservatively made local loans appearing to depend for liquidation within 1 year on the liquidation or refinancing of borrowers' fixed capital	40
10, medium-grade securities maturing 1935 and later	35
11, low-grade securities maturing later than 1932	25
12, local loans appearing to depend for liquidation within 1 year on the liquidation or refinancing of "thin equities" in borrowers' properties	15
13, other assets (except cash reserves)	10

IMPROVEMENT IN CONDITIONS OF BANKS, 1933–35

Following 1933, most of the surviving banks had large increases of deposits, reserves, and investments mainly in the form of United States Government securities. Losses were largely eliminated through improvement in the markets for securities and other capital assets, through establishment of depositors' trusts and other plans of reorganization, and through rehabilitation of the capital structures of banks. Real estate mortgages and other capital loans were given increased marketability through the strengthening, or the establishment of new refinancing agencies. The confidence of depositors was recovered by means of deposit insurance as well as by improvement in the general economic situation. In these and other ways the banks were restored to a much easier position than they occupied in 1932 and 1933.

To the latter part of 1935, when the data obtained in this study end, however, the changes effected in the structure of Wisconsin banks had only partially corrected the basic elements of weakness that were responsible for the difficulties of banks during the depression. The banks remained principally holders of capital loans and long-term bonds, and their deposits were still subject to withdrawal upon demand or short notice. In fact, comparing their positions in 1929 and 1935, the banks were less deeply involved with capital loans and long-term bonds at the earlier, than at the later, date. The volume of their self-liquidating loans and the more easily collectible working-capital loans, which had served so effectively as a means of meeting deposit withdrawals during the depression, was much smaller in 1935 than in 1929. For liquidity, the banks had become more dependent on the securities markets and on refinancing or rediscount agencies than before the depression. But the quality of their securities had been improved and many of the poorly protected loans had been eliminated.

EARNINGS, EXPENSES, AND LOSSES

Earnings, expenses, and losses of banks are related closely to their financial condition. Adequate net earnings provide the wherewithal for paying satisfactory dividends to stockholders and provide a means of strengthening the banks' capital structures for the protection of depositors. Low earnings not only prevent the accomplishment of one or both of these desirable ends but frequently spur banks to incur unjustified risks in an effort to increase their earnings. To an important degree, also, low earnings reflect such unsatisfactory conditions as excessive proportions of nonearning assets, lax collection policies, extravagant expense budgets, and excessive loss ratios. For these reasons the earnings records of the banks covered by this study are reviewed briefly at this point.

OPERATING EARNINGS AND EXPENSES

The average annual earnings, operating expenses, and net earnings per $100 of deposits during the period 1927–34 inclusive, and during several subdivisions of this period, are shown for four classes of banks in table 45. Only the records of banks that operated continuously throughout each period and for which complete records of earnings and expenses were available, are included.

During the 3-year predepression period, 1927–29, banks that were to survive the depression without establishing depositors' trusts had substantially larger net-operating earnings than banks that were later to be reorganized or placed in receivership. Their greater profits appear to have been due mainly to lower expenses, but partly to the fact that their earnings were slightly above the average for other groups of banks. It appears that the principal source of economy enjoyed by the banks of this latter class was interest on deposits.

TABLE 45.—*Average annual earnings and expenses of selected country banks, per $100 of deposits, 1927–34* [1]

Year and bank-group [2]	Banks	Gross earnings					Operating expenses						Net operating earnings
		Interest and discount	Exchange and collection charges	Service charges	Other earnings	Total earnings	Salaries and wages	Interest on deposits	Interest on borrowed money	Taxes	Other expenses	Total expenses	
	No.	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*	*Dol.*
1927–29													
1	17	5.96	0.12	0	0.27	6.35	1.46	2.08	0.07	0.25	0.77	4.63	1.72
2	17	5.64	.11	0	.35	6.10	1.35	2.55	.02	.23	.67	4.82	1.28
3	5	5.74	.06	0	.19	5.99	1.22	2.87	.21	.22	.46	4.98	1.01
4	17	6.17	.13	0	.48	6.78	1.52	2.62	.11	.28	1.02	5.55	1.23
1930–32													
1	16	5.98	.10	.02	.34	6.44	1.75	2.09	.09	.22	.95	5.10	1.34
2	13	5.86	.16	0	.45	6.47	1.70	2.49	.10	.25	.80	5.34	1.13
3	2	5.52	.03	0	.16	5.71	1.27	3.00	.10	.16	.46	4.99	.72
4	8	6.00	.17	0	.48	6.05	2.03	2.80	.31	.25	1.22	6.01	.04
1933–34													
1	16	5.13	.17	.09	.41	5.80	1.68	1.86	.23	.16	1.19	5.12	.68
2	16	4.40	.21	.11	.41	6.13	1.88	1.97	.23	.18	1.21	5.47	.66
3 [3]													
4 [3]													
1927–34													
1	16	5.80	.13	.02	.33	6.28	1.62	2.02	.11	.22	.93	4.90	1.38
2	12	5.66	.15	.02	.44	6.27	1.63	2.34	.09	.24	.85	5.15	1.12
3 [3]													
4 [3]													

[1] The banks for which data are presented in the several parts of this table include only those which operated throughout the respective periods and for which a complete record of earnings and expenses was available.
[2] For description of groups of banks, see table 12. [3] No banks operated the full period.

Much the same situation prevailed during the 3 recession years, 1930–32, except that, per $100 of deposits, expenses of operation increased and operating earnings decreased in all classes of banks. These changes resulted mainly from the fact that deposits declined more rapidly than salaries and wages were reduced; though there were increases in certain other items of expenses, notably interest on borrowed money and "other" expenses, which included the cost of supplies, heat, light, rent, and expenses connected with the operation of properties taken over by the banks in satisfaction of debt. Even in this period, however, banks that survived the depression without establishing depositors' trusts made larger net operating earnings than the other classes of banks had made during the predepression period.

None of the banks taken to represent closed institutions remained continuously in operation during the recovery years 1933 and 1934. For this period only the records of surviving banks were used, and these show clearly, in the item interest and discount, the effects of the lower interest rates and higher cash reserves that were incident to the period. Banks that established depositors' trusts had slightly larger earnings and expenses per $100 of deposits than banks that did not require reorganization, but the net earnings of the two groups of banks were approximately equal. This was the least profitable part of the entire period 1927–34. Approximately one-fourth of these banks made no net operating earnings whatever in 1933 and 1934 (table 46). It was at this time that service charges on deposit accounts first became a significant source of bank income.

TABLE 46.—*Average annual net operating earnings per $100 of deposits during the period 1933–34* [1]

[Array of amounts of earnings for individual banks]

16 banks in group 1	15 banks in group 2	16 banks in group 1	15 banks in group 2
Dollars	*Dollars*	*Dollars*	*Dollars*
-0.64 (B)	–0.64	0.85	1.09
–.40	–.26 (F)	.88	1.14
–.02	–.21 (G)	.93 (D)	1.20
–.02	–.08 (H)	1.19 (C)	1.21
.21	.25	1.52	1.26
.28	.26 (E)	1.52	1.35
.44 (A)	.91	1.55	1.39 (I)
.81	1.04	1.75	

[1] Letters in parentheses indicate the amounts for the banks selected for special study. For description of groups of banks, see table 12.

Records of continuous operation for the full period, 1927–34, are available for only two of the four groups of banks. In these two groups the gross earnings and all expense items except interest on deposits were nearly the same. The greater net earnings of banks that survived without establishing depositors' trusts are traceable mainly to the savings effected in the interest paid on deposits.

The savings effected in the interest paid on deposits by banks that survived without establishing depositors' trusts, resulted principally from the fact that the time and savings deposits of these banks represented, on the average, smaller proportions of their total deposits than was the case with the other groups of banks. Approximately the same rates of interest on time and savings deposits were paid by the banks of all groups. The differences among the groups of banks in

the interest paid on deposits were therefore due mainly to differences in the character of the banks' deposits. In part these differences in the character of the banks' deposits may have been due to management policy, but it seems more probable that they should be ascribed to community situations.

NET INCOME (AFTER LOSSES) AND ITS DISPOSITION

Table 47 shows the annual rates of (1) net income earned after charging out losses; (2) contributions and assessments; (3) funds raised through new issues of capital stock; (4) dividends paid; and (5) the increase or decrease in total capital funds per $100 of deposits, for the respective groups of banks during the period 1927–34 and several subdivisions thereof. In this table data for all banks that were in active operation at the beginning of the periods are entered and the annual rates refer to such parts of the periods as the banks remained in operation. It was possible to calculate net income, dividends, and changes in capital items for several banks on which there were no reports of operating earnings and expenses for certain years, as net capital changes could be computed from statements of condition, and examiners' reports frequently contained information on dividends, assessments, contributions, and new stock issues.

TABLE 47.—*Average annual net income, additions to capital, dividends, and net change in capital accounts of selected country banks per $100 of deposits, 1927–34* [1]

Years and bank group [2]	Banks	Net income, after charging out losses	Assessments and contributions [3]	New capital stock sold locally	Capital stock sold to R. F. C.	Dividends paid	Net increase (+) or decrease (−) in capital account
1927–29	*Number*	*Dollars*	*Dollars*	*Dollars*	*Dollar*	*Dollars*	*Dollars*
1	17	1.42	0	0	0	0.72	0.70
2	17	.73	.07	0	0	.50	.30
3	5	.13	0	0	0	.56	−.43
4	19	−.11	.60	.24	0	.45	.28
1930–32							
1	[4] 16	.10	.17	0	0	.55	−.28
2	[4] 16	−.31	.05	.15	0	.37	−.48
3	[5] 4	−3.06	0	0	0	.27	−3.33
4	19	−4.64	.93	0	0	.30	−4.01
1933–34							
1	[4] 16	−2.38	.25	.26	.94	.07	−1.00
2	[4] 16	−3.80	0	2.64	2.61	.05	1.40
3	[6] 2	−16.63	5.36	0	0	0	−11.27
4	[6] 6	−28.05	.29	0	0	0	−27.76
1927–34							
1	17	.17	.12	.06	.20	.53	.02
2	17	−.46	.11	.48	.48	.38	.23
3	5	−2.10	.29	0	0	.38	−2.19
4	19	−2.70	.61	.14	0	.36	−2.31

[1] The banks for which data are presented in the several parts of this table include all banks which were operating at the beginning of the respective periods, and the annual rates given in the table apply to such parts of the periods as the banks continued in operation.
[2] For description of groups of banks, see table 12.
[3] Includes only contributions and assessments collected before failure of bank. Assessments levied for benefit of liquidating trusts or receiverships are excluded. Class B debentures issued for purpose of writing off losses and which did not appear as part o a bank's capital structure are classified as contributions.
[4] Consolidation reduced number of banks from 17 to 16.
[5] Consolidation reduced number of banks from 5 to 4.
[6] Number of banks reduced by failure during preceding period.

Lack of complete data on some subjects, such as accrued losses not yet charged off, the losses ultimately sustained by the depositors of closed and reorganized banks, and the collections resulting from assessments against the stockholders of reorganized banks, make it impossible to place certain features of the banks' operating records on a strictly comparable basis. The data should be interpreted as

reflecting only the losses that were absorbed directly by the stockholders of the banks, not including accrued losses or losses incurred as a result of assessments for the benefit of creditors.

During the period 1927–29 banks that were to survive without establishing depositors' trusts had net income, after charge-outs, amounting on the average to $1.42 per $100 of deposits. This sum was used about equally for making dividend payments to stockholders and additions to capital funds. The net earnings of banks that were to establish depositors' trusts were only about half this rate, with the result that both dividends and additions to capital funds were much smaller. Banks later to close had virtually no net incomes, after charging out losses. Such dividends and additions to capital funds as were made approximately equaled, on the average, the sums raised through assessments, contributions, and sales of additional stock.

In the following period, 1930–32, only banks that were to survive without establishing depositors' trusts had, on the average, any net incomes. There were several reorganizations among other classes of banks, and most of the banks that were to fail closed their doors during the period. Table 48 shows how widely net losses were distributed among the banks during the 3 years of recession.

Data for the 2 years 1933 and 1934 are strongly colored by the "clean-up" program. All classes of banks had net losses, and there was a large disappearance of banking capital in spite of extensive contributions, assessments, and sales of new capital. The net losses of this period appear to have exceeded those of the period ending with 1932, largely because the losses actually incurred during the recession were not recognized in the banks' accounting procedures until 1933–34. The extremely high annual rates of loss per $100 of deposits shown for closed banks result from the facts that the banks remained in operation but a comparatively short time after 1932 and that all of the capital funds were considered to have been written off.

TABLE 48.—*Average annual net income earned (after charging off losses) per $100 of deposits during the period 1930–32*[1]

[Array of amounts of income for individual banks]

16 banks in group 1	16 banks in group 2	4 banks in group 3	19 banks in group 4
Dollars	*Dollars*	*Dollars*	*Dollars*
−2.05	−3.98	−5.60	−9.61
−.93	−1.08	−5.01	−8.05 (Q)
−.51	−.85	−.87 (J)	−7.97
−.25 (A)	−.68 (G)	−.03 (K)	−7.08
−.22 (C)	−.46		−6.57
−.16	−.37		−6.40
−.15	−.10 (H)		−6.25
.01	−.09		−6.09 (O)
.09	−.07		−6.04
.65 (D)	.07		−5.85
.65	.12		−5.78
.78 (B)	.25 (I)		−5.14 (L)
.80	.37		−3.71 (N)
.86	.46		−3.37
.87	.52 (F)		−1.10 (P)
1.12	.82 (E)		−.38
			.30
			.40
			.65 (M)

[1] Letters in parentheses indicate the amounts for the 17 banks selected for special study. For description of groups of banks, see table 12.

LOSSES TO STOCKHOLDERS OF BANKS

The data given in table 47 do not measure the full extent of the losses to stockholders resulting from the operation of banks during the depression. In table 49 such losses are stated more completely and in a way that relates them to the capital invested in the banks at the beginning of the depression.

Stockholders of closed banks lost all of the capital invested at the end of 1929 and a substantial sum afterwards invested in the form of contributions and assessments to keep the banks in operation. In addition, they were made liable for assessments in an amount exceeding 60 percent of the capital funds at the end of 1929. Establishment of depositors' trusts apparently worked much less hardship on the stockholders of banks than did outright failures, though in both cases depositors sustained large losses. Nevertheless, the stockholders of banks that established depositors' trusts lost over 40 percent of the capital funds invested at the end of 1929 and were made liable for assessments averaging 57 percent of such capital funds.

Compared with these losses the stockholders of banks that survived the depression without failure or establishment of depositors' trusts escaped with little damage, their losses amounting to about 20 percent of the amount invested at the end of 1929. Losses varied greatly among the stockholders of individual banks (table 50). In only one case were stockholders subject to no net loss from the bank's operations during the depression.

TABLE 49.—*Average changes in capital structure of 55 country banks and total losses sustained by stockholders, during the period 1930–34, expressed as percentages of the banks' total capital funds at the end of 1929*

Item	16 banks in group 1 [1]	16 banks in group 2	4 banks in group 3	19 banks in group 4
CHANGES IN CAPITAL STRUCTURE				
	Percent	*Percent*	*Percent*	*Percent*
Capital funds outstanding at the end of 1929	100	100	100	100
Additions to capital funds from:				
Contributions and assessments	6	1	16	12
Sale of capital stock locally	3	26	0	0
Sale of preferred stock and debentures to R. F. C	10	28	0	0
Total capital funds available, 1930–34, inclusive	119	155	116	112
Dividends paid	10	9	6	5
Net amount remaining after dividends	109	146	110	107
Operating deficits and losses charged off	19	41	110	107
Capital funds remaining after adjustment for operating deficits and losses	90	105	0	0
Gain (+) or loss (−) to capital account	−10	+5	−100	100
LOSSES TO STOCKHOLDERS				
Operating deficits and losses charged off	19	41	110	107
Assessments levied against stockholders for benefit of depositors' trusts and receiverships	0	57	60	68
Total losses to stockholders	19	98	170	175

[1] For description of groups of banks, see table 12.

Table 50.—*Relation of stockholders' losses resulting from operations, charge-offs, and liabilities created by assessments, during the period 1930–34, inclusive, to the total capital funds at the end of 1929* [1]

[Array of percentages of capital funds for individual banks]

16 banks in group 1	16 banks in group 2	4 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*
(2)	58	128	136
1 (C)	71	155 (J)	141
5	75	186 (K)	141
10	82	207	144
12	83 (F)		148 (L)
12	85 (E)		148 (Q)
14	85		153
15 (D)	86		157 (O)
18 (B)	89		159 (N)
20	93 (G)		162
23	94 (H)		167
25	101		169
29 (A)	121 (I)		172 (M)
48	143		177
52	144		180
69	172		181
			194
			260 (P)
			320

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.
[2] Gain of 24 percent to stockholders.

Examiners' Appraisals of Conditions of Banks

State bank examiners cannot be said to have prepared comprehensive summary statements embodying their views as to the conditions of the banks during the period covered by this study. Their findings and comments were scattered throughout their reports. The nearest approaches to summary forms and statements were represented by the schedule summarizing all assets classified as slow, doubtful, or worthless, and by a concluding section of confidential remarks. The latter dealt mainly with points of weakness for which corrections were sought, only occasionally reviewing points of strength. From these remarks, and the summaries of slow, doubtful, and worthless assets, however, it is possible to arrive at a judgment as to examiners' opinions of the banks.

Although differing in some respects, national bank examiners' reports also contained summaries of the assets classified as slow, doubtful, and worthless. These were made available for use in this study. The confidential remarks of national bank examiners, however, were not made available. Such data as are presented on the comments of examiners refer only to State bank examinations.

PREDEPRESSION APPRAISALS

Assets classified as slow, doubtful, and worthless consisted, in 1929 as in later years, chiefly of loans and securities, but included certain other items, among which real estate was the most important. Owing to their diversity, it is impossible to characterize precisely the items included in the classification but predominantly they were assets that already had depreciated in value or on which the risk of future loss was large.[16]

[16] See earlier pages dealing with examiners' classifications of loans and securities.

In table 51 the assets classified in 1929 as slow, doubtful, and worthless are compared with the total assets and the capital funds of the 58 country banks covered by the study. Examiners' comments on the conditions of the banks are summarized in table 52.

From both the comments of examiners and their classifications of assets it appears that the examination procedure followed in 1929 succeeded generally in separating the stronger from the weaker banks. Banks that were to survive the depression without reorganization usually received much less criticism than did banks that were to fail or to establish depositors' trusts. But in numerous cases, the comparative strength or weakness of banks apparently was not detected. Such shortcomings may be ascribed in part to the work of examiners, but appear to have been due mainly to the fact that the examination procedure was not well designed for appraising the banks' securities holdings.

APPRAISALS IN 1932

By 1932 the assets classified as slow, doubtful, and worthless had increased substantially in relation to the total assets and capital funds of most of the banks (table 53). The general effect of the changes was to reduce the appearance of marked superiority enjoyed by the banks that were to survive without establishing depositors' trusts. For some banks, such as A, E, G, H, and Q, however, examiners' classifications indicated an improvement in condition from 1929 to 1932 which does not appear to have been justified (table 44).

TABLE 51.—*Relation of all assets classified as slow, doubtful, and worthless, to the total assets and capital funds of country banks in 1929* [1]

[Array of ratios for individual banks]

Ratio of classified assets to total assets				Ratio of classified assets to capital funds			
17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4	17 banks in group 1	17 banks in group 2	5 banks in group 3	19 banks in group 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1 (C)	2	5	1	4 (C)	15	63	12
1	3	12 (K)	3	5	32 (I)	167 (K)	30
1	4 (I)	21	4	12	45	209	32
1	4	27	5 (M)	14	47	231	34
2	6	36 (J)	5	16	50	355 (J)	46 (M)
3 (D)	7 (F)		8 (O)	25 (D)	70 (H)		65
3	7		10	27	88		73 (O)
3	8		11	36	99		96
6	10 (H)		12	39	104 (F)		109
7 (B)	12		13 (Q)	52	106		111 (Q)
7	12		13	57	107		118
10	14		15 (N)	69 (B)	154		143
10	14		15	72	173		187 (N)
11	14		20	85	181 (E)		192
11	20		26 (P)	107 (A)	247 (G)		218
14 (A)	21 (E)		27	121	250		246
17	30 (G)		28	127	376		314 (P)
			33				369
			40 (L)				450 (L)

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.

TABLE 52.—*Number of State banks to which bank examiners' comments on condition of banks were applied, 1927–29, 1932–33, and 1934–35* [1]

Item and comment	1927–29				1932–33 [2]				1934–35	
	11 banks in group 1	12 banks in group 2	5 banks in group 3	13 banks in group 4	10 banks in group 1	12 banks in group 2	5 banks in group 3	14 banks in group 4	10 banks in group 1	11 banks in group 2
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Management:										
Excellent	1	0	0	0	1	1	0	0	4	1
Good	8	5	1	1	5	1	0	2	4	5
Fair	0	2	0	1	1	1	0	0	1	3
Weak	0	2	2	3	0	2	2	2	0	1
Uncooperative	0	1	0	2	0	0	0	0	0	1
Antiquated	0	0	0	0	0	0	0	0	1	1
No comment	2	3	2	8	3	7	3	10	1	0
Financial condition:										
Excellent	1	0	0	0	0	0	0	0	1	0
Good	4	0	0	0	0	0	0	0	0	0
Fair	2	4	0	1	0	0	0	0	0	0
Poor	0	2	3	3	0	2	0	2	0	0
Serious	0	0	1	3	0	0	0	0	0	0
No comment	4	6	1	6	10	10	5	12	9	11
Liquidity:										
High	2	0	0	0	0	0	0	0	2	3
Good	0	0	0	0	0	1	0	0	4	1
Fair	3	9	0	0	0	2	0	0	1	2
Low	0	0	0	5	0	1	1	0	0	0
No comment	6	3	5	8	10	8	4	10	3	5
Earnings:										
High	0	0	0	0	0	0	0	0	0	1
Good	4	3	0	4	0	1	0	1	4	2
Fair	0	3	0	0	1	1	0	0	0	2
Low	0	2	0	1	2	2	0	4	6	3
No comment	7	4	5	8	7	8	5	9	0	3
Capital and reserves:										
Need more capital	0	3	0	0	0	0	0	1	1	0
Need larger reserves	2	3	0	2	4	0	0	0	2	0
Capital absorbed by real estate	0	0	1	0	0	1	1	0	0	0
Capital impaired	0	0	0	2	1	2	2	6	2	0
Need assessment	0	0	0	1	0	1	1	0	0	0
Need trust	0	0	0	0	0	4	0	0	0	0
No comment	9	8	4	9	6	5	1	7	5	11
Miscellaneous points:										
Cash reserves deficient	3	1	0	3	4	5	4	4	0	1
Excess borrowed money	0	0	2	4	2	3	1	4	0	0
Excess slow, frozen, doubtful, and worthless loans	1	4	3	9	2	7	3	8	5	7
Excess low-grade bonds	1	0	1	0	0	1	0	0	0	1
Excess real estate	0	5	2	3	0	2	1	3	0	0
Need consolidation	0	0	0	0	0	1	0	3	0	2
No comment	6	4	0	3	5	2	0	3	4	2

[1] Multiple comments sometimes make the number of banks for which comments are reported greater than the number of banks covered by the study. For description of groups of banks, see table 12.

[2] Comments from examination reports prepared in late 1931 were used for several banks that closed before being examined in 1932.

TABLE 53.—*Relation of all assets classified as slow, doubtful, and worthless, to the total assets and capital funds of country banks in 1932* [1]

[Array of ratios for individual banks]

Ratio of classified assets to total assets				Ratio of classified assets to capital funds			
16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4	16 banks in group 1	15 banks in group 2	4 banks in group 3	11 banks in group 4
Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
3	(2)	23 (K)	[2] (P)	17	(2)	290 (K)	[2] (P)
4	[3] 2	28	7 (M)	21 (C)	[3] 9	379	56 (M)
5 (C)	10 (I)	53 (J)	12	29	53 (H)	[3] 420	60
6	11 (H)	[3] 83	13 (Q)	49	62 (I)	465 (J)	94 (Q)
12	[3] 12		14	52	[3] 75		106
13	15		27	66	95		113
14 (D)	17 (E)		27	89 (D)	118 (E)		121
17	19 (F)		40	94 (A)	126 (G)		344
18 (A)	19 (G)		48 (N)	110	139		444 (N)
21	19		50	112	[3] 187		515
21	21		67	131	201 (F)		570
23	26			139	234		
23	[3] 29			168	282		
24	36			172 (B)	284		
29 (B)	38			174	404		
66				208			

[1] Letters in parentheses indicate the percentages for the 17 banks selected for special study. For description of groups of banks, see table 12.
[2] No data.
[3] Indicates percentages for banks which had eliminated a portion of assets through reorganization before date of examination.

The deterioration in condition indicated for most banks was moderate in relation to the changes that had actually taken place. Supervisory officials apparently refrained, as far as possible, from actions that might serve to aggravate a banking situation that was rapidly becoming critical. In conformity with this tendency examiners were extremely reticent about commenting upon the banks' conditions (table 52).

APPRAISALS IN 1934

In 1934, when the volume of criticized assets reached a peak, the need for cautious restraint on the part of supervising officers was no longer apparent. (The peak for national banks was reached in 1933.) An improved economic situation, and numerous facilities for rehabilitating banks, enabled supervisory authorities to require that banks retire their losses and strengthen or dispose of assets on which there was large risk of loss. Moreover, preparations for the introduction of deposit insurance and the realization that predepression standards of supervision had been too lax, imposed some degree of responsibility on supervisory officials to make their examination standards more rigorous.

The changes made from 1932 to 1934 in the methods of classifying loans and securities as slow, doubtful, and worthless have been described. A more rigorous attitude was taken also with regard to the real estate held by banks; and the banking offices, furniture, and fixtures frequently were valued on a basis that showed substantial depreciation.

As a result of these changes, the criticized assets increased greatly in relation to the total assets and capital structures of the banks, except as certain of the banks had eliminated weak assets by reorganization (table 54). Large increases in criticized assets occurred in

nearly all of the banks that survived without establishing depositors' trusts, and even in some of the banks that had established trusts.

To a small extent the verbal comments of examiners also reflect these changes in examination procedure (table 52). For example, management, liquidity, and earnings were commented upon more frequently than in 1932. Even in 1934 and 1935, however, the records taken of examiners' comments do not indicate that the positions of the State banks were reviewed thoroughly in examiners' concluding remarks.

In numerous ways not discussed, as well as in the classifications of loans and securities, the examination procedure has been improved greatly since predepression times, and examiners now appraise the conditions of banks much more thoroughly than formerly. In addition, the requirements of banks have been made more strict and supervisory authorities have been given additional powers to enforce these requirements, such as the power to force the removal of managements that persist in following unsound practices and the power to move for a discontinuance of deposit insurance. In these and other ways the protection afforded by public supervision of banks has been greatly enhanced.

TABLE 54.—*Relation of all assets classified as slow, doubtful, and worthless, to the total assets and capital funds of country banks in 1934* [1]

[Array of ratios for individual banks]

Ratio of classified assets to total assets		Ratio of classified assets to capital funds	
15 banks in group 1	15 banks in group 2	15 banks in group 1	15 banks in group 2
Percent	*Percent*	*Percent*	*Percent*
7	[2] (I)	41	[2] (I)
16	[3] 2	86	[3] 24
16	[3] 4	88 (C)	[3] 27
17 (C)	[3] 4	117	[3] 31
17	[3] 14 (H)	128	[3] 58 (H)
19 (D)	[3] 14	135 (D)	[3] 99
20	[3] 14	140	[3] 103
22	[3] 15 (E)	184	[3] 104 (E)
24	[3] 24	204	[3] 125
30	[3] 28	205	[3] 166
33	[3] 28	217	[3] 209
39 (A)	45 (F)	220	[3] 282
45	[3] 49	238 (A)	[3] 357 (G)
46	[3] 60 (G)	294	[3] 509
53 (B)	[3] 74	357 (B)	606 (F)

[1] Letters in parentheses indicate the percentages for the banks selected for special study. For description of groups of banks, see table 12.
[2] No data.
[3] Indicates percentages for banks which had eliminated a portion of assets through reorganization before date of examination.

MEASURES FOR STRENGTHENING BANKS

Interest now shifts to the question whether the banking system of Wisconsin can be so improved that economic disturbances of the future will not, like those of the past, be accompanied and aggravated by widespread banking difficulties and acute shortages of credit. Although much has been accomplished during recent years toward improving the banking system, not only in Wisconsin but throughout the country, it is the opinion of the writer that certain additional

measures should be adopted. These measures are discussed under two headings: (1) Proposed changes in methods of appraising conditions of banks, and (2) proposed changes in banking policy. First, however, it will be well to review the principal shortcomings demonstrated by Wisconsin banking and the measures already adopted for their correction.

Principal Shortcomings of Banks

Large numbers of banks in Wisconsin were unable during the depression to satisfy three of the essential conditions of sound, serviceable banking. They were unable: (1) To maintain the availability of depositors' funds, (2) to protect the principal value of such funds, and (3) to maintain the volume of credit needed in their communities and justified by borrowers' circumstances. The failure of banks in Wisconsin and elsewhere to satisfy these conditions not only subjected individual depositors and borrowers to heavy direct losses but had deflationary effects that produced indirect losses of probably even greater extent. Vast amounts of purchasing power were either destroyed or immobilized during the depression by the imperfect functioning of the banking system.

The unsatisfactory functioning of the banking system during the depression was due in no small measure to inherent characteristics of the system of independent unit banking. This system of banking, which is dominant in most parts of the country, has many virtues, but it also has certain defects that have caused it not to be dependable in times of difficulty. Among these defects are the inability of unit banks to share losses, their inability to make large deposit transfers without converting loans and investments into cash or credits at other banks, and their inability to extend credit unless adequate reserves are available to banks at the points where credit is to be extended. By way of contrast it may be pointed out that large branch-banking systems, with offices in all parts of a country, can sustain heavy losses at some offices without becoming insolvent, can transfer deposits merely by making book entries, and can use their available reserves as a basis for extending credit through any of their offices. Independent-unit banking offers the advantage of local control, but it also places upon each community the responsibility of absorbing its own losses and of providing the resources from which credit may be extended and deposits may be liquidated.

When economic conditions are favorable, unit banks have little difficulty in operating successfully, for losses are small, and if banks in a given locality should sustain deposit shrinkages, assets usually can be shifted easily to other sections of the country. When economic conditions in the country at large become unfavorable, however, declines in the prices of securities or disappearance of markets for certain classes of loans that normally have markets, make it impossible for the banks to convert their assets into funds that can be used to satisfy depositors' claims and meet local needs for credit. Moreover, heavy losses impair the solvency of many banks, causing them to be closed or "stabilized." The consequent freezing of deposits and shortages of credit, and the liquidations of assets that occur or are attempted, make conditions all the more unfavorable; depositors lose confidence in banks and withdraw funds for hoarding; and banking

difficulties increase in scope and intensity. Thus unit banking breaks down in a time of economic disturbance when a closely integrated type of banking might remain intact. Such a break-down occurred in Wisconsin and in other parts of the country during the depression.

It is important to recall, however, that there were great differences in the experience with various classes of bank assets. In most cases, short-term high-grade securities remained convertible and produced negligible losses even during the worst of the depression, and there were also small losses and considerable liquidity in local loans used to finance current farming and business operations and consumer purchases, and in the more conservatively made nonseasonal working-capital loans. Some of the long-term bonds could be sold and some of the loans representing long-term credit could be refinanced, at negligible loss, but as a general rule even good assets of these classes were difficult to liquidate and many produced considerable loss. Heavy losses were sustained and but small liquidation obtained from loans and securities of poor quality.

Despite the inherent weakness of unit banking it appears that Wisconsin banks could have met their commercial banking liabilities, protected their solvency, and rendered an adequate short-term credit service in their communities had they not been deeply engaged in savings banking. At the beginning of the depression most of the banks covered by this study had sufficient assets of the kinds that proved liquid and secure during the depression to assure their ability to pay their demand depositors in full, provided they had to meet no other liabilities. As there was no possibility that all demand deposits would be withdrawn, it seems probable that the banks, by operating in the more liquid and secure sectors of credit, could have functioned successfully as commercial banks.

Their participation in savings banking, however, had greatly increased their obligations to depositors over those related to commercial banking and had so increased their lending powers as to force them deeply into long-term loan credits and long-term securities. In the course of the depression, withdrawals by time and savings depositors accounted for about two-thirds of the total shrinkage of deposits and required a much greater liquidation of assets than could be accomplished with the kinds of assets that had been acquired in the banks' savings-banking operations. Moreover, the losses on such assets were greater than many banks could absorb. Thus the break-down of Wisconsin banking facilities appears to have resulted chiefly from the banks' savings and investment operations, which seem to have been especially ill-adapted to unit banking. As commercial banking and savings banking were combined in the same institutions, failure in the savings-banking portion of the banks' business brought also a disruption of commercial banking facilities.

In addition to these organizational causes of difficulty, there were other factors that prevented the banks from functioning smoothly. One of these factors was the failure of many bankers to stay within reasonably safe limits in their lending and investment practice. The large amounts of poorly protected loans and low-grade securities held by many Wisconsin banks at the beginning of the depression indicates that such banks had been engaged extensively in risky types of financing. Assets of these kinds caused banks to sustain losses, and to lose liquidity, out of all proportion to the needs of the case. Another

source of difficulty was the practice, which apparently developed most rapidly during the 1920's, of financing the operating and working-capital requirements of large commercial and industrial concerns by means of loans on securities and purchases of long-term bonds. Although Wisconsin banks adhered to the traditional practice of financing the requirements of local concerns on a short-term basis, they joined with banks in the financial centers in purchasing long-term bonds and making loans on securities to finance the requirements of large commercial and industrial concerns with a Nation-wide reputation.

This method of financing placed the large corporations in control of capital funds for long or indeterminate periods, and accordingly as the large corporations gained this advantage, banks lost their power to recall funds from the industries. Even when the depression brought lower inventories, lower operating costs, and a lower volume of receivables, so that the operating and working-capital requirements of the large corporations were reduced, country banks were unable to recall funds no longer needed by the large business corporations, or to require the corporations to shift their borrowings to banks in other sections where funds were more plentiful. The most that they could do was to collect call loans and try to find purchasers for the long-term bonds which they held. Such measures placed the securities markets under heavy pressures and, combined with dubious business prospects, caused drastic declines in the prices of securities. Though banks were able to regain possession of considerable amounts of funds by these measures, the burden of providing the funds fell not upon the borrowing industries but upon others, and the effect of attempting to liquidate a large portion of the investment securities outstanding was extremely deflationary.

Additional strongly depressing effects resulted from the fact that many of the long-term bonds depreciated to such an extent that they could not be sold without impairing the banks' capital structures. When banks were thus prevented from meeting depositors' claims, the ensuing receiverships or stabilizations immobilized purchasing power that otherwise would have been used in ways that would have helped to maintain business volume. Moreover, even when depositors' demands could be met, the banks' inability to sell such bonds frequently caused them virtually to cease making new loans and to force liquidation by local borrowers who had been financed with short-term loans. In many cases it was necessary to close out the very borrowers who could use credit most advantageously, merely because they could the most easily be forced to pay. Borrowers needing seasonal credit often had to be denied advances at a time when their proposed purchases would have done much to maintain business and arrest deflation.

It is not to be supposed, however, that adherence to the traditional practice of financing the operating and working-capital requirements of large business concerns by making short-term loans or by purchasing commercial paper and short-term securities would have enabled Wisconsin banks generally to remain solvent and to operate serviceably during the depression. Though this practice would have increased the liquidity of the banks, the improvement in this respect would hardly have sufficed to enable the banks to meet the combined demands of demand and time depositors and continue to provide

ample credit facilities to local borrowers. Moreover, even though substantial losses might have been avoided, it seems probable that losses would still have been so great as to impair the solvency of many banks. As long as time and savings depositors are permitted to withdraw funds virtually at will, unit banks engaged in savings banking are likely to have serious difficulties in meeting their liabilities and operating efficiently as local credit institutions during adverse periods, and the losses on assets of the types that have been common to savings banking in this State are likely to cause widespread insolvency.

Measures Adopted to Improve Conditions of Banks

Of the measures already adopted to strengthen the banking structure, four appear to be of outstanding importance. First was the creation of the Reconstruction Finance Corporation in 1932 and its continuation to the present time. The Corporation was of great assistance to many banks in meeting the demands of depositors in 1932 and 1933 and has since played an indispensable part in the program of strengthening the capital structures of banks. A second very important measure was the provision of deposit insurance. Such insurance adds greatly to the protection of depositors against losses from banking difficulties and gives banks a large measure of protection against runs by depositors. Third was the granting of enlarged lending powers to the Federal reserve banks. Their present authority to lend on virtually any sound asset places the Federal reserve banks in position to be of much more service to member banks than was possible under the earlier eligibility requirements. Fourth were the greater powers and responsibilities given supervisory authorities. With power to define the grades of securities that member banks are authorized to purchase and to require the removal of bank managements that are following unsound policies, supervisory officials have been able to exert a strong influence toward bringing about improvements in the capitalization and assets of banks and consolidations or absorptions of banks too weak to stand strongly alone.

Numerous other measures have operated to relieve or improve the banking situation even though they may have been intended primarily to serve other purposes. Notable among such measures are the strengthening of the Federal land banks; the creation of the Federal Farm Mortgage Corporation, the Home Owners' Loan Corporation, and the regional agricultural credit corporations; the devaluation of the dollar; and the adoption of various governmental programs involving public expenditures for relief, public works, and agriculture. The Federal land banks, F. F. M. C., H. O. L. C., and regional agricultural credit corporations enabled banks, particularly from 1933 to 1936, to refinance large amounts of assets that could not have been liquidated otherwise and, in many cases, saved banks from sustaining heavy losses. Devaluation of the dollar, combined with the gold- and silver-purchase programs contributed strongly to the increase of bank reserves and bank lending power that has occurred since early 1933. Public expenditures for relief, public works, and agriculture have helped to maintain the deposits of banks in places where falling prices, a slackening of business activity or growing unemployment tended to cause sharp declines of deposits. In addition, these and other

programs have resulted in the issuance of large amounts of Federal and federally guaranteed securities that have been available to banks for investment.

At present, the banking system appears to be in a strong position. Reserve ratios are at exceptionally high levels; the banks hold an unusually large proportion of their assets in forms that presumably may be sold or refinanced easily; the facilities for borrowing upon their assets are greater than ever before; and they have protection against deposit shrinkages not only in deposit insurance but also in governmental programs that transfer funds to areas from which economic conditions tend to cause a strong outflow of funds. Though it would not require much of a drop in security prices to impair, at least temporarily, the capitals of many banks, the present banking situation, appears to hold no immediate danger. There is a very considerable danger, however, that the situation may change in the course of time in ways that would seriously impair the strength of the banking system. The potentialities of such a development arise from two elements in the present situation.

First is the fact that banks have been able to find employment for only a portion of their lending power. If and when there are opportunities to increase their credit extensions, banks are likely to increase their loans and investments and to enlarge their liabilities. The potentialities of expansion, so far as bank lending power is concerned, are very great. Moreover, such expansion as occurs seems likely to appear chiefly in the field of long-term credits. For many years the general tendency has been for savings and investment banking to grow more rapidly than commercial banking. A development may be visualized, therefore, which would involve a substantial expansion of bank assets and liabilities, the liabilities being payable on demand or short notice and the assets consisting, in increasingly large proportions, of loans and investments representing extensions of long-term credit. Unless the behavior of bank deposits and the performance of bank assets of this type change radically from the patterns displayed in the past, a severe business recession could wreak havoc with a banking system in this position.

At present these patterns are strongly influenced by Government policies with respect to public expenditures and by financial agencies established by the Government. But these may be changed in the course of time, and this possibility is a second source of danger. Even now banks in many sections of the country would be under considerable strain if public expenditures for agriculture, public works, or relief were curtailed, for such expenditures serve—to mention only one effect—to maintain the deposits of many banks at far higher levels than would prevail without them. Moreover, the market for Federal securities is now supported by various Federal agencies at times when support is needed; and certain Federal agencies are engaged in refinancing borrowers on considerably more liberal terms than have been customary in the past. Such operations maintain stronger markets for bank assets than would otherwise prevail. If, as seems within the range of reasonable possibility, such supports were gradually reduced during a period of increasing business activity when banks were expanding their assets and liabilities, and were slow in being restored during a period of business recession, there

is little reason to doubt that wide-spread banking difficulties might occur again as in the past.

It is not necessary to contemplate any drastic changes in governmental policies and facilities to feel that a sounder banking situation would prevail if the banking system itself were strengthened so that it would be less dependent on such policies and facilities. Moreover, insofar as the banking system can be made capable of functioning smoothly and efficiently without assistance from Federal agencies, the burdens of Government during periods of economic disturbance can be lightened. When one adds to these considerations the possibility that Government policies and facilities may be changed at some time in the future, and that a substantial expansion of bank credit probably would weaken the banks, there appear to be compelling reasons for attempting to increase the inherent strength and flexibility of the banking system.

To accomplish these objectives, it seems necessary to change the policies and correct the organizational weaknesses that have interfered in the past with the efficient functioning of banks. The specific measures proposed are based on the assumption that unit banking will continue to be the dominant form of banking in Wisconsin. They accordingly are intended to suggest ways by which the serviceability of unit banks may be increased and made more dependable. Another assumption also underlies the suggested measures—that it is better for financial institutions to render dependable services within those fields for which they are especially well adapted, than to operate in virtually all fields of finance and run the risk of suffering a breakdown or becoming dependent on governmental aid whenever conditions become unfavorable.

Changes in Methods of Appraising Conditions of Banks Proposed by Author

The first measure proposed is the development of more effective methods of predetermining whether banks could function serviceably even if conditions were to become unfavorable. Appraisals, it would seem, should be aimed at determining not only the ability of banks to meet possible demands from depositors, but also their ability to provide an adequate and dependable credit service in their communities. The probable effect of an unfavorable turn in conditions upon the banks' solvency should also be shown. Among the specific questions for which answers should be sought are the following: To what extent would unfavorable conditions bring shrinkages of deposits to the banks of any given area? To what extent would borrowers' needs for credit and their ability to protect credit satisfactorily be altered? To what extent would the banks' securities lose their liquidity through depreciation? To what extent would losses develop in the assets of banks? Would the banks be able to meet the anticipated shrinkages of deposits and still serve borrowers efficiently? Would losses impair the capitals of the banks and possibly force them into receivership?

Obviously such questions involve many uncertainties. It is not known whether or when conditions of depression will develop, how

severe they will be, nor in what particular ways they will affect a given bank. In some measure, these uncertainties present insuperable obstacles to accurate appraisal. Yet every experienced banker and examiner has considerable knowledge of the strains that actually have been placed on banks and their communities by conditions of depression, and it is probable that they can form a reasonably sound judgment as to whether banks could function serviceably under strains of equal force if such should develop in the near future. If appraisals take account of the past experience of banks under depression conditions, and if banks follow policies that seemingly will maintain them in position to withstand any strains that experience has indicated are within the realms of reasonable possibility, there should be much less disturbance from banking difficulties in the future than in the past. It is possible, also, that the restraining influence of such policies would tend to prevent the excessive expansions of credit that frequently precede economic depressions.

This study has shown how the depression following 1929 affected Wisconsin banks. Using data on the conditions of certain banks in 1929, and data on deposit shrinkages and on the performance of various classes of assets during the depression, an attempt was made to devise a method of appraisal that would have shown, if applied in 1929, how well (or how poorly) the banks were prepared for the depression that was to develop during the next few years. This method is described in the following pages to illustrate certain principles which, it is believed, might be employed to advantage in appraising the conditions of banks.

APPRAISAL OF LOCAL LOANS

Table 55 illustrates the methods used in analyzing the loans of banks.

The loans were first classified according to their bases for quick liquidation. For the purposes of illustration only a few broad classes of loans were used. Most of the small loans to consumers, often called personal loans, were combined with seasonal-operating loans, and with amounts normally expected to be paid within 1 year on other loans, to form the class designated as payable from current income. Loans on securities, except brokers' loans, were included among the loans classified as depending for quick payment upon the liquidation of working capital. Loans on urban homes were included among loans classified as depending for quick payment on the liquidation of fixed capital. Much more finely divided classifications might be used to advantage by bankers in analyzing the loans of their own institutions.

The next step was to estimate the liquidation that might feasibly be expected from each class of loans in case conditions became moderately depressed or acutely depressed, and the losses that probably would occur in each class of loans under these respective conditions. "Feasible" liquidation was taken to mean the liquidation that banks should and could require in order to keep their losses within reasonable bounds and that borrowers could make without serious handicap to their current operations. This concept was based on the assumption that banks are obligated to finance the reasonable requirements of their communities, regardless of con-

ditions, and, in so doing, must be prepared to sustain some losses; but that they should not allow the accumulation of large losses.

TABLE 55.—*Schedule for estimating performance of local loans under assumed conditions of business recession*

Class of local loans	Principal amount	Probable performance assuming condition of—							
		Moderately severe recession				Acutely severe recession			
		Feasible liquidation		Probable loss		Feasible liquidation		Probable loss	
		Percentage of book value[1]	Amount	Percentage of book value[1]	Amount	Percentage of book value[1]	Amount	Percentage of book value[1]	Amount
	Dol.	*Pct.*	*Dol.*	*Pct.*	*Dol.*	*Pct.*	*Dol.*	*Pct.*	*Dol.*
Class 1, sound loans which appear to be payable within 1 year from borrowers' current incomes		25		0		50		0	
Class 2, sound loans which appear to depend for payment within 1 year upon the liquidation or refinancing of farm chattels, the current assets of business firms, securities, notes, and mortgages		12		5		30		10	
Class 3, sound loans which appear to depend for liquidation within 1 year upon the sale or refinancing of farms, homes, and business properties		5		5		20		10	
Class 4, portions of loans that are in excess of conservative loan limits but are not worthless		10		50		15		75	
Class 5, loans worthless at present		0		100		0		100	
Total		XXX		XXX		XXX		XXX	

[1] The percentages are applied to the total book value of all outstanding loans in each respective class.

Under this concept, the income loans (class 1 loans), though usually paid in full within a short period, were not treated as a type of asset that could properly be reduced by 100 percent. Under any and all conditions borrowers require some current credits to finance seasonal operations and consumer purchases, and banks should be prepared to supply this credit. It was considered that reductions of 25 and 50 percent, respectively, were the most that banks ought to make in the outstanding volume of such loans under conditions of moderately severe and acutely severe recession.[17] This was not intended to suggest that banks should fail to collect virtually all of such loans at frequent intervals, but merely that they should be prepared to replace collected loans with new loans to the indicated extent.

Loans depending for quick payment on the liquidation of working capital and fixed capital (loans of classes 2 and 3) are, for the most part, credits that will be needed by borrowers for long periods, even in cases where the underlying assets may revolve rapidly; and if banks are to render a satisfactory service to their borrowing customers they must be prepared to carry the bulk of such loans for long periods and to make some new loans of these types. For this reason the percentages of feasible liquidation assigned to such loans were not large. The estimated loss ratios shown in table 55 were based on the

[17] These percentages are "over-all" estimates, not based, as would be preferable, on study of individual borrower's probable needs.

assumptions that some of the loans could just qualify as being satisfactorily protected at the time of appraisal and that bankers, through carelessness, would allow some unnecessary losses to accrue. Severe depressions, however, always bring heavy losses that must be borne by someone, and the bank that earnestly strives to be helpful cannot avoid sustaining a part of these losses.

In case of unfavorable developments, there would be very large losses and very small liquidation on loans, or portions of loans, that were poorly protected at the time of appraisal (class 4 loans). That conclusion is supported by the experience of Wisconsin banks as depression developed after 1929. Immediate attempt should be made to strengthen such loans, and if such measures prove unsuccessful the safest plan, except possibly under acutely depressed conditions, is to take the losses necessary to clear such loans from the books. Even if charged off, such loans, of course, should receive continued attention in the hope of salvaging as much value as possible from them.

Needless to say, loans regarded as worthless at the time of appraisal (class 5 loans) would not be expected to improve if general conditions turned unfavorable.

To some it may seem inconsistent that the feasible liquidation of loans should be estimated as greater under conditions of acutely severe depression than under conditions of moderately severe depression. It was presumed that many borrowers would voluntarily reduce new borrowings and outstanding lines as conditions become less favorable for the use of credit and that banks might have to require more and more liquidation to protect themselves against unreasonably large losses as the protection for loans becomes more slender.

Table 56 shows how the loans of the 17 banks that were selected for special study would have been classified in 1929. The unusual strength of the loans of bank C and the exceptional weakness of the loans of banks O and P were clearly revealed by use of this method. Even moderately severe depression would have been expected to produce heavy losses in the loans of several banks, such as banks A, G, J, L, O, and P; but other banks, such as C, D, H, and Q, apparently were in position to hold their losses at moderate levels under almost any conceivable conditions. The estimated feasible liquidations of loans varied in different banks from about 11 to 17 percent under assumed conditions of moderately severe depression, and from about 26 to 38 percent under assumed conditions of acutely severe depression.

Actually, as the depression developed from 1929 to 1933, banks which survived without reorganization generally reduced their loans more than the percentages shown for feasible liquidation and escaped with lighter losses than were estimated. Most of the other banks reduced their loans less than was estimated to have been feasible. Their losses have not even yet (in 1940) been ascertained definitely, but are virtually certain to exceed the estimates. It is believed that the management policies followed during the depression were chiefly responsible for these differences between the estimated and actual performances of loans.

TABLE 56.—*Local loans held in 1929 by 17 selected banks, classified by type, and estimated losses and feasible liquidation on loans under assumed conditions of business recession*

Group and bank [1]	Distribution of local loans in class—					Estimated feasible liquidation assuming—		Estimated loss assuming—	
	1	2	3	4	5				
	Sound loans appearing to be payable from—			Unsound loans					
	Current income	Nonseasonal working capital	Fixed capital	Poorly protected	Worthless [2]	Moderately severe recession	Acutely severe recession	Moderately severe recession	Acutely severe recession
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:									
Bank A	9	46	31	13	1	11	27	11	18
Bank B	20	42	34	4	0	12	30	6	10
Bank C	49	33	18	0	0	17	38	3	5
Bank D [3]	36	38	22	4	0	15	35	5	9
Group 2:									
Bank E	15	51	29	5	0	12	29	7	12
Bank F	17	37	43	3	0	11	29	6	10
Bank G	25	20	38	17	0	12	29	12	10
Bank H	26	31	43	0	0	12	31	4	7
Bank I	23	52	19	6	0	14	32	6	11
Group 3:									
Bank J	22	34	27	17	0	13	29	12	19
Bank K	23	26	41	10	0	12	29	8	14
Group 4:									
Bank L	24	40	17	18	1	13	30	13	20
Bank M [3]	16	37	36	11	0	11	28	9	16
Bank N	36	39	18	7	0	15	34	7	11
Bank O	12	35	32	21	0	11	26	14	23
Bank P	22	41	11	24	2	13	20	17	25
Bank Q	29	33	34	4	0	13	32	5	9

[1] For description of groups of banks, see table 12.
[2] Includes only loans classified by examiners as "loss."
[3] Estimated from classification of loans held in 1930.

APPRAISAL OF SECURITIES

For appraising the securities the method was intended to apply only after the fundamental quality of the securities had been determined.

Two forms were used for entering the book and market values and the depreciation on securities. On the first form were entered the data for all securities which, at the time of appraisal, were depreciated less than 10 percent from book value. A second form was used for securities which, at the time of appraisal, were depreciated more than 10 percent from book value. These distinctions were intended to serve merely as a rough means of separating the securities which bankers were likely to feel they could afford to sell, and which for that reason might be regarded as currently liquid, from those that were currently unliquid because bankers would be unwilling to sell. The two forms used in classifying the securities were almost identical, hence it is sufficient for illustration to show only one form as in table 57.

On both forms the securities were divided into six general classes. This break-down was based on the anticipated performance of the securities should conditions become acutely depressed, the first class being highly resistant, the second class being moderately resistant, and the third class being sensitive, to strongly depressing influences. Classes 4, 5, and 6 include, respectively, current bonds below the standard regarded as suitable for bank investment, defaulted securities, and stocks. For securities of each grade and maturity within these main classes the book and market values and the current depreciation or appreciation were entered.

TABLE 57.—*Schedule for estimating performance of securities under assumed conditions of business recession* [1]

Class of security	Book value	Market value	Depreciation or appreciation	Probable future performance assuming conditions of— Moderately severe recession: Liquidity: Percentage of book value [2]	Moderately severe recession: Liquidity: Amount	Moderately severe recession: Depreciation: Percentage of book value [2]	Moderately severe recession: Depreciation: Amount	Acutely severe recession: Liquidity: Percentage of book value [2]	Acutely severe recession: Liquidity: Amount	Acutely severe recession: Depreciation: Percentage of book value [2]	Acutely severe recession: Depreciation: Amount
Current bonds:											
Class 1:											
Grade 1 maturing within 5 years	*Dol.*	*Dol.*	*Dol.*	*Pct.* 100	*Dol.*	*Pct.* 0	*Dol.*	*Pct.* 100	*Dol.*	*Pct.* 0	*Dol.*
Grade 1 maturing within 5 to 10 years				100		0		85		10	
Grade 1 maturing within 10 to 20 years				100		0		80		10	
Grade 2 maturing within 3 years				100		0		100		0	
Grade 2 maturing within 3 to 5 years				100		0		90		5	
Grade 3 maturing within 3 years				98		0		98		0	
Grade 4 maturing within 1 year				90		5		90		5	
Class 2:											
Grade 1 maturing after 20 years				100		0		75		15	
Grade 2 maturing within 5 to 10 years				95		0		60		25	
Grade 3 maturing within 3 to 10 years				93		0		55		25	
Grade 4 maturing within 1 to 3 years				85		5		70		10	
Class 3:											
Grade 2 maturing after 10 years				90		0		45		35	
Grade 3 maturing after 10 years				87		7		35		45	
Grade 4 maturing after 3 years				75		12		15		45	
Class 4:											
Grade 5 maturing within 1 year				90		10		90		10	
Grade 5 maturing within 1 to 3 years				60		15		50		35	
All other				20		40		10		70	
Defaulted bonds:											
Class 5				20		40		10		70	
Stocks:											
Class 6, listed				20		40		10		70	
Class 6, local				(3)		(3)		(3)		(3)	
Total				XXX		XXX		XXX		XXX	

[1] This schedule applies only to securities which, at time of appraisal, are depreciated less than 10 percent from their book values.
[2] The percentages are applied to the total book value of all securities of each given class.
[3] Estimated.

The next step was to estimate the liquidity that would remain and the average depreciation that would occur in securities of each grade and maturity if conditions should become moderately depressed or severely depressed, as compared with conditions existing as of the time of appraisal. It was assumed that all securities that would not become depreciated more than 10 percent would remain liquid but that those on which the depreciation would exceed 10 percent would lose their liquidity. No estimates were made of the liquidity likely to remain, in case of depression, in securities already depreciated more than 10 percent from book value. Such securities were considered to be

unliquid at the time of appraisal and it was not expected that their position would be improved by a recession of market conditions.

Table 58 shows the results obtained by applying this type of appraisal to the securities held in 1929 by the 17 banks used for purposes of illustration. The strongest securities accounts were held by banks A, J, N, and P; the weakest accounts by banks F, G, L, M, and Q. Even in case of acute depression, more than two-thirds of the securities of the first-mentioned banks would be expected to remain salable and the average depreciation of securities in these banks would not be expected to exceed 20 percent. Securities held by the second group of banks, in contrast, would not be expected to withstand even a moderately severe recession without greater loss of liquidity and greater average depreciation than would be expected from the securities of the first group of banks if there were an acutely severe recession.

TABLE 58.—*Securities held in 1929 by 17 selected banks, classified by type, and estimated liquidity and depreciation of the securities under assumed conditions of business recession* [1]

Group and bank [3]	Distribution of securities by class [2]						Estimated liquidity assuming—		Estimated depreciation assuming—	
	Standard			Substandard			Moderately severe recession	Acutely severe recession	Moderately severe recession	Acutely severe recession
	1	2	3	4	5	6				
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Group 1:										
Bank A	64	8	17	7	0	4	86	69	5	20
Bank B	45	6	35	14	0	0	82	51	9	30
Bank C	23	7	50	20	0	0	74	44	12	38
Bank D	30	11	32	27	0	0	71	45	15	36
Group 2:										
Bank E	31	6	46	17	0	0	78	47	10	35
Bank F	14	7	41	37	1	0	61	32	19	46
Bank G	4	12	37	46	1	0	55	24	22	52
Bank H	47	7	36	10	0	0	81	58	7	26
Bank I	21	11	52	15	1	0	78	42	11	37
Group 3:										
Bank J	38	45	5	12	0	0	89	67	5	20
Bank K	38	9	33	19	1	0	78	51	11	33
Group 4:										
Bank L	24	0	0	76	0	0	39	31	31	54
Bank M	0	5	5	90	0	0	27	13	36	66
Bank N	67	8	13	12	0	0	80	73	7	17
Bank O	41	4	13	42	0	0	63	45	18	39
Bank P	100	0	0	0	0	0	100	87	0	8
Bank Q	25	7	30	38	0	0	63	38	19	42

[1] Relates only to securities that were depreciated less than 10 percent from book value at time of examination in 1929; however, relatively few of the securities were depreciated more than 10 percent from book value at that time.

[2] The classes of securities are described in table 57. Securities in classes 1, 2, and 3 are now, in the main, listed by supervisory officials as standard for bank investment. Securities in classes 4, 5, and 6 are listed as substandard for bank investment.

[3] For description of groups of banks, see table 12.

Though strength or weakness may be estimated from the general classes within which securities fall, it is believed that the added degree of precision obtainable by use of the methods described justifies the work involved. A banker is much more likely to be impressed by the inferior character of his bond account if the results of an analysis show that in case of severe difficulty half the bonds will probably become too badly depreciated for sale and that depreciation is likely to average one-third of the book value of the bonds, than if the analysis merely shows that about 15 percent of the bonds are substandard for bank investment. (See data for banks B and I.)

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SUMMARIZING THE LIQUIDITY POSITION

The form used in summarizing the amounts expected to be realizable from the loans and investments and from certain other assets of the banks is shown in table 59. Reserve accounts, cash and collection items, call loans and commercial paper, were considered to be wholly liquid or collectible for both present and possible future purposes. The market value of securities depreciated less than 10 percent from book value at the time of appraisal was listed as the present liquidating value of securities, and the estimates obtained from analysis of the securities were used as the liquidating values under varying degrees of recession. It was assumed that the immediate feasible liquidation of local loans was nil, since borrowers would probably require for the time being all the credit they had obtained. Possibility of collecting poorly protected loans in the near future was disregarded. For liquidation to be expected from loans under varying degrees of recession the estimates of feasible liquidation obtained from analysis of the loans were used. Estimates also were made of the liquidation to be expected from other real estate and other assets.

TABLE 59.—*Schedule for estimating liquidity of bank under assumed conditions of business recession*

Class of assets	Present liquidity		Estimated liquidity assuming condition of—			
			Moderately severe recession		Acutely severe recession	
	Reference or percentage	Amount	Reference or percentage	Amount	Reference or percentage	Amount
		Dol.		*Dol.*		*Dol.*
1. Cash and collection items.	100 percent of present amount.		100 percent of present amount.		100 percent of present amount.	
2. Call loans	do		do		do	
3. Commercial paper	do		do		do	
4. Securities (only those depreciated less than 10 percent from book value at time of appraisal).	Present market value.		As computed on security schedule.		As computed on security schedule.	
5. Local loans	None		As computed on loan schedule.		As computed on loan schedule.	
6. Other real estate	do		10 percent		15 percent	
7. Banking house, furniture and fixtures.	do		None		None	
8. Other assets	Estimated		Estimated		Estimated	
Total	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	
Deduct borrowed money: i. e., bills payable and rediscounts.	100 percent of present amount.		100 percent of present amount.		100 percent of present amount.	
Net liquid assets for payment of deposits.	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	
		Pct.		*Pct.*		*Pct.*
Relation of net liquid assets to present deposits.	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	

When the appropriate amounts had been entered for the various classes of assets in the columns headed "Present liquidity" and "Estimated liquidity, assuming conditions of moderately severe and acutely severe recession" the amounts in each column were added. From the totals thus obtained the amounts currently owed on out-

standing bills payable and rediscounts were deducted. The resulting net amounts, it was assumed, should be available for meeting deposit shrinkages, and a comparison of such amounts with the volume of deposit liabilities should indicate the percentage shrinkages of deposits that the banks were in position to meet under existing conditions, or under varying degrees of recession without depriving local borrowers of credits which they might need and be able to protect.

Table 60 shows the results obtained by applying the analysis to the conditions of the banks in 1929. Of the four banks which survived the depression without establishing trusts, all but one appeared able to withstand deposit shrinkages exceeding 45 percent, in case of an acutely severe depression, without depriving local borrowers of required credits. Only two of the five banks which survived after establishing trusts, and one of the eight banks which were placed in receivership, appeared to possess this degree of liquidity. An interesting feature of the data is that some banks seemed able to withstand greater shrinkages of deposits, without unduly restricting local credits, under conditions of recession than under the conditions existing in 1929, whereas the reverse was true of other banks. Such gains as appeared likely to develop in liquidating power under conditions of depression were due to loans, whereas losses of liquidating power were traceable mainly to securities. Bank F, which had a high current liquidity ratio in 1929 because of its large holdings of securities appeared less able to survive a severe depression than bank N, whose current liquidity ratio, due to its large loan portfolio, was only about one-third as high as that of bank F. This appearance was borne out by the facts. Bank N met much larger deposit shrinkages before failing than did bank F, before being reorganized.

As 1929 was followed by an acutely severe recession it was possible to test, roughly at least, the validity of this type of analysis when applied to the assets held by banks in 1929. Table 61 shows the results of such a test.

TABLE 60.—*Percentage of deposits that 17 selected banks appeared, in 1929, able to pay without depriving local borrowers of required credit*

Group and bank [1]	Deposits payable at time of appraisal	Deposits payable under assumed conditions of— Moderately severe recession	Acutely severe recession
	Percent	*Percent*	*Percent*
Group 1:			
Bank A	50	54	59
Bank B	27	34	43
Bank C	55	57	59
Bank D	34	39	47
Group 2:			
Bank E	31	36	41
Bank F	58	45	39
Bank G	24	28	36
Bank H	76	69	61
Bank I	49	50	47
Group 3:			
Bank J	26	35	45
Bank K	41	40	41
Group 4:			
Bank L	4	17	34
Bank M	28	26	37
Bank N	22	31	44
Bank O	20	24	34
Bank P	9	22	36
Bank Q	37	33	38

[1] For description of groups of banks, see table 12.

TABLE 61.—*Percentage shrinkages of deposits which 17 selected banks appeared, in 1929, able to withstand in case of an acute business recession, compared with shrinkages of deposits actually sustained during the 1929–33 recession.*

Bank [1]	Deposit shrinkages that banks—		Excess (+) or deficit (−) of deposit shrinkages which banks appeared able to withstand over those which were sustained	Deposits paid from borrowed money
	Appeared, in 1929 able to withstand in case of acute recession without depriving local borrowers of required credit	Actually sustained from 1929 to time when deposits reached lowest points during active operation of banks [2]		
	Percent	*Percent*	*Percent*	*Percent*
C	59	35	+24	0
K	41	19	+22	0
A	59	41	+18	6
E	41	23	+18	7
I	47	32	+15	6
H	61	47	+14	0
J	45	36	+9	9
Q	38	31	+7	1
D	47	42	+5	2
F	39	35	+4	3
O	34	34	0	3
P	36	40	−4	12
N	44	52	−8	8
G	[illegible]	45	−9	15
M	[illegible]	47	−10	17
L	34	47	−13	7
B	43	62	−19	14

[1] Banks are arranged in order according to the size of the excess or deficit of the shrinkages that banks appeared able to withstand over those that actually were sustained during the depression.
[2] In the case of reorganized and closed banks, which include all but banks A, B, C, and D, deposit shrinkages occurring after payments to depositors were first suspended, or as a result of waivers by depositors, are not included.

In making these estimates, it was a fundamental consideration that banks should not refuse new loans to, or enforce drastic collection measures against, worthy borrowers who could use credit advantageously but that they should require liquidation when necessary to protect themselves against large losses. Unfortunately, these conditions were not met by the banks. Moreover, banks could have avoided much depreciation and loss of liquidity by disposing of securities before the depression became severe, and to some extent they took advantage of their opportunities. Despite the differences between the policies followed by the banks and those assumed in making the estimates, banks for which the liquidity estimated in 1929 exceeded the liquidity needed during the depression generally were able to meet deposit shrinkages with little or no borrowing from other banks, whereas most of those for which the estimated liquidity was less than that needed during the depression had to borrow heavily in order to meet the shrinkages of their deposits.

SUMMARIZING THE SOLVENCY POSITION

The form used in summarizing the items affecting the solvency of banks is shown in table 62. On this form were entered the current amounts of loss and depreciation on the various classes of assets and estimates of the losses and depreciation that would be likely to occur under conditions of moderately severe or acutely severe recession. The estimates used for loans and investments were those derived from the previously described analyses of these assets. When the columns had been added, the totals were compared with the capital funds of the banks.

TABLE 62.—*Schedule for estimating solvency of banks under assumed conditions of business recession*

Class of assets	Current losses and depreciation		Estimated losses and depreciation assuming condition of—			
			Moderately severe recession		Acutely severe recession	
	Reference or percentage	Amount	Reference or percentage	Amount	Reference or percentage	Amount
		Dol.		*Dol.*		*Dol.*
1. Local loans	100 percent of currently worthless loans.		As computed on loan schedule.		As computed on loan schedule.	
2. Securities depreciated at time of appraisal less than 10 percent from book values.	Current depreciation.		As computed on security schedule.		As computed on security schedule.	
3. Securities depreciated at time of appraisal more than 10 percent from book values.	do		do		do	
4. Other real estate	do		Estimated		Estimated	
5. Banking house, furniture and fixtures.	do		do		do	
6. Other assets	do		do		do	
Total	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	
		Pct.		*Pct.*		*Pct.*
Relation to present surplus, profits, and reserves.	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	
Relation to present capital, surplus, profits, and reserves.	XXXXXXXXXX		XXXXXXXXXX		XXXXXXXXXX	

Table 63 shows the relation between the total capital funds of the banks and the losses and depreciation existing in the assets of the banks in 1929 and the losses or depreciation anticipated in the event that conditions should become depressed. Many of the banks appeared unable to withstand even a moderately severe recession without incurring losses and depreciation in excess of their entire capital accounts, and only bank C appeared capable of surviving an acutely severe recession without impairing, temporarily at least, the position of its depositors. The weakest banks appear to have been banks F, K, L, O, and P.

It was not feasible, with available data, to test accurately the validity of the classifications of estimated probable losses and depreciation, for no attempt was made to measure actual losses in 1932 or early 1933, and examiners were very lenient in making their classifications of losses on loans at that time. But a general confirmation of the worth of the estimates is found in the fact that only banks A, B, C, and D survived the depression without loss to depositors, and these banks had heavy charge-offs despite the fact that improvements in the markets for securities held in 1932–33 or purchased afterwards caused much of the depreciation in their securities accounts ultimately to disappear.

TABLE 63.—*Percentage of current losses and depreciation, and of losses and depreciation anticipated in case conditions should become depressed, to the total capital funds of 17 selected banks in 1929* [1]

Group and bank	Current losses and depreciation	Losses and depreciation anticipated assuming condition of—		Group and bank	Current losses and depreciation	Losses and depreciation anticipated assuming condition of—	
		Moderately severe recession	Acutely severe recession			Moderately severe recession	Acutely severe recession
Group 1:	*Percent*	*Percent*	*Percent*	Group 3:	*Percent*	*Percent*	*Percent*
Bank A	7	59	121	Bank J	3	97	173
Bank B	7	56	125	Bank K	20	127	273
Bank C	1	29	75	Group 4:			
Bank D	2	57	117	Bank L	10	132	211
Group 2:				Bank M	6	114	199
Bank E	26	88	170	Bank N	47	116	177
Bank F	15	178	398	Bank O	3	120	216
Bank G	12	95	169	Bank P	51	202	296
Bank H	19	55	141	Bank Q	9	77	158
Bank I	9	60	143				

[1] For description of groups of banks, see table 12.

The primary purpose of an analysis such as this is not to forecast the future but to indicate what should be done to strengthen a bank's position so that it can protect the interests of its depositors, borrowers, and stockholders. The specific percentages used in estimating liquidations, depreciations, and losses may not be the best that could have been employed for appraising the positions of banks in 1929 and may be less accurate for some future period. But it seems certain that if these, or any other, percentages that are based on past experience or on reasonable estimates of probable future performance are used in an effort to determine what changes would be likely to occur in a bank's position in the event of a general business recession, many bankers will be surprised to learn how precarious are their positions.

For example, table 64 shows the liquidity and solvency positions of several surviving banks in 1935, as estimated by applying the same percentages as were used for determining their positions in 1929. It will be recalled that an extensive shift from loans to cash reserves and securities holdings took place during the period 1929–35. This change produced an immense increase in the current liquidity of the banks but only a slight increase, on the average, and actual decreases in some cases, in the liquidations estimated to be feasible if an acutely severe recession should develop. The most significant change, however, occurred in the solvency positions of the banks. In 1935 the conditions of the banks were such as to make it seem probable that in all cases an acutely severe recession would create losses and depreciation far greater than could be covered by the banks' capital structures.

TABLE 64.—*Liquidity and solvency ratios of six selected banks in 1935*

Bank	Deposits payable			Losses and depreciation to total capital funds		
	At time of appraisal	Assuming condition of—		At time of appraisal	Assuming condition of—	
		Moderately severe recession	Acutely severe recession		Moderately severe recession	Acutely severe recession
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
A	62	60	54	8	93	204
B	38	37	43	17	106	186
C	92	76	53	4	66	173
D	56	56	52	18	89	193
F	73	44	42	3	208	355
G	42	36	49	12	32	123

It may be maintained that a temporary depreciation of securities does not constitute a permanent loss and that, with the growing tendency of supervisory officials to disregard depreciation of approved securities, a bank need not worry about depreciation provided its securities are of good grades. For purposes of public banking policy it may be desirable to disregard depreciation of sound securities when computing a bank's net sound capital. But no banker is likely to find his position comfortable if depreciation seriously impairs the capital structure of his bank, nor is he likely to borrow against the depreciated securities merely to render a good loan service to borrowers. For this reason the liquidity position of a bank (taking liquidity to mean the ability to meet deposit shrinkages without depriving worthy local borrowers of required credits) may be reduced greatly by depreciation of securities, regardless of the policies of supervisory agencies.

When appraising the solvency of his bank, it seems advantageous for the individual banker to calculate the entire depreciation that might reasonably be anticipated in the event of an unfavorable turn, so that he will be called upon to reach a deliberate decision whether, considering all factors, he is justified in continuing the risks that appear to be present in the bank's current condition.

CHANGES IN BANKING POLICY PROPOSED BY AUTHOR

Unit banks operating with liabilities payable on demand or short notice must maintain a considerable proportion of their assets in a collectible or easily transferable form and must confine their operations to sectors of moderate risk. Otherwise they may sustain overwhelming losses or be unable to meet the demands of depositors and the needs of their borrowers. These requirements limit the fields of credit in which such banks may operate successfully.

In the past many Wisconsin banks have extended their operations far beyond the limits within which they could operate successfully except under favorable economic conditions. Had they stayed within the liquidity and risk sectors that would have enabled them to function serviceably during 1929–33, it is probable that they would have had to operate before the depression with considerably reduced loans and investments and smaller liabilities to depositors. In this event many of the services that were rendered by Wisconsin banks would have had

to be rendered by other financial institutions. The chances are, however, that other institutions, if operated under appropriate safeguards, could have met the conditions brought by depression in the unliquid and high-risk sectors of credit more successfully than did commercial banks.

Although it is not possible with available data to estimate the curtailments, if any, that would be necessary under present conditions to assure that Wisconsin banks would be able to function satisfactorily should conditions turn unfavorable, such curtailments probably could be indicated with reasonable accuracy for individual banks by the use of appraisal methods similar to those just discussed. Moreover, through adoption of certain loan and investment policies, banks can go far toward assuring that the assets which they hold will be of types appropriate to their needs; and through asset control the banks collectively can exert a strong influence over the volume and character of their liabilities.

The loan and investment policies which seem, to the writer, most appropriate for country banks in Wisconsin handling deposits payable on demand or short notice are outlined below.

(1) Anticipate, in formulating the loan and investment policy, that it may be necessary at some future time to meet shrinkages of at least 50 percent of the total deposit volume, irrespective of whether the deposits are carried as demand, time, or savings accounts. Such shrinkages as occur probably will be spread over a period of several years, so that a gradual liquidating policy may be employed. Though it is inconceivable that deposits in the country at large ever would shrink 50 percent, unless the banking system virtually collapses, agricultural areas are subject to seriously adverse trade and financial balances in times of depression and country banks may sustain drastic deposit shrinkages even when deposits in the financial centers are increasing.

(2) Supply as much as possible of the credit used by acceptable local borrowers for current production, consumer purchases, and the maintenance or increase of nonseasonal working capital. The provision of such credits is a primary function of commercial banking. Moreover, when made on a conservative basis and when serviced carefully, loans for these purposes usually can be adjusted to changes in the circumstances of borrowers, and a large proportion will be reduced substantially during periods of depression because borrowers no longer will find it profitable to use as much credit as in periods of more active business and higher costs. Such loans thus possess considerable liquidity and are relatively easy to protect against loss.

(3) So far as the circumstances of borrowers warrant, make nonseasonal working-capital loans on a term basis with provision for systematic repayments.[18] Loans of this type normally are paid from borrowers' savings and, wherever feasible, should be made on terms that will protect borrowers against untimely demands for payment. If adequate provision for liquidity is made in the manner suggested below, it will not be necessary for banks to collect any large part of such loans during periods of depression; hence there will be no need to place trustworthy borrowers under the obligation to make complete liquidation at short notice.

[18] Devices for the protection of such loans are described in Term Loans by Commercial Banks, pp. 34-38, by the Institute of International Finance of New York University, prepared under the direction of the Committee on Banking Practice of the Association of Reserve City Bankers.

(4) Periodically analyze each borrower's position in an effort to estimate the changes that would occur in the event of a severe depression. From the standpoint of liquidity, it would be important to estimate, not the amounts that could be collected in a forced liquidation, but the amounts by which borrowers could reduce their loans without curtailing operations that it would be worth while for them to continue. From the standpoint of safety, the analysis would attempt to estimate the liquidation that might have to be required in order to save the banks from sustaining heavy loss. Such estimates would necessarily involve much inaccuracy, but would help to prevent bankers from overrating the liquidity and safety of loans.

(5) During favorable periods try to improve the position of poorly protected loans so that it will not be necessary to require liquidation to save banks from undue loss in the event that adverse economic conditions develop. Such adjustments may be made most easily and with the least depressing effects when economic conditions are favorable.

(6) Do not plan on collecting any local loans to meet deposit shrinkages except those loans, or portions of loans, that borrowers are able to pay without interfering with operations that can profitably be continued. For meeting the deposit shrinkages anticipated under depression conditions, make such provision as appears to be needed, over and above the amounts that could be collected without harm to local borrowers, by purchasing commercial paper, acceptances, and short-term high-grade securities. Assets of these types may be collected or sold with little difficulty even under severely adverse conditions. They also have the advantage of being admirably suited for the open-market operations of the Federal Reserve banks.

(7) Employ such additional lending power as is available in making fixed-capital loans to local borrowers and in purchasing high-grade bonds. Most country banks in Wisconsin will still have considerable lending power after satisfying the needs of acceptable local borrowers for operating- and working-capital loans and making adequate provision for liquidity by purchasing commercial paper, acceptances, and short-term high-grade securities. The fixed-capital loans should be made, so far as possible, on a term basis in order to provide borrowers with a credit service fitted to their needs. The bonds should be almost exclusively of grades 1 and 2, with maturities staggered, and preference might best be given bonds with maturities under 10 years. As a general rule, it will be better for country banks to make fixed-capital loans in their own communities with this portion of their lending power than to purchase the bonds of distant corporations and political units, for it is more important that country banks help to provide an adequate local capital market than that they contribute to distant capital markets. Moreover, they can exert much more control over local borrowers to whom they have made direct loans than over distant organizations whose long-term bonds they have bought.

These policies, it will be observed, provide not only for maintaining the availability of depositors' funds but also for rendering a continuous credit service adapted to the needs of local borrowers. Both functions must be performed successfully if country banks are to render a dependable service to their communities and are not to prove a weak link in the economic organization during periods of difficulty. An

adequate secondary reserve of commercial paper, acceptances, and short-term high-grade securities that can be sold or collected when country bank deposits are being transferred to other areas is essential to these purposes. It is essential also that country banks do not become overloaded with local loans and long-term bonds, regardless of quality, and that they restrict poorly protected loans and medium- and low-grade bonds to a very small volume.

CHANGES IN FINANCIAL PRACTICE AND ORGANIZATION

Although these policies would differ little, if at all, from those long advocated as essential to good banking practice, their general adoption would involve a substantial modification of customary banking practice. Secondary reserves would be much larger than those customarily held and country banks could no longer serve as liberal sources of venture capital by making loans involving large risks and purchasing long-term bonds of low and medium grades. Owing to these limitations, the banks might find that a considerable part of their lending power could not be employed. Their serviceability would thus be reduced in the sense that they would not be able to operate in so many fields of credit as in the past. Offsetting the restriction of service in this respect, however, would be improvements in the protection given depositors and in the dependability and quality of the credit services rendered to borrowers. A narrowing of the range of services performed by banks appears to be the price that must be paid for improvements in the quality of their services.

If country banks were to adopt such policies, their action probably would be followed by other important changes in financial practice and financial organization. One change to be expected would be a growing tendency for large business corporations to finance their operating and working-capital needs by the issuance of short-term obligations. Because the lending power of country banks would be limited not only by the amount of their available reserves and by the demand for credit, but also by their ability to obtain adequate secondary reserves, the demand created for commercial paper and high-grade securities of short maturity might be expected to encourage the issuance of such obligations. No considerable change could be expected under present conditions but if the demand for credit on the part of large business corporations ever reached a point where it became less easy than now for them to finance their requirements on their own terms, they might find it necessary to raise funds in this way. Such a change in the financial practice of large business corporations would not only increase the liquidity of the entire banking system, but also extend the fields within which country banks could operate safely and serviceably.

A second change to be expected from the adoption of these policies would be the development or the expansion of other financial institutions to take over a part of the business previously conducted by country banks. Through limitation of the loans and investments of country banks the tendency would be to reduce their deposit liabilities, and it may be assumed that the reduction would take place chiefly in time accounts as there are other institutions capable of handling such accounts, but no others that handle deposits subject to check. Thus the policy suggested would tend to limit country banks much more closely than in the past to commercial-banking functions and would

create a need for other institutions to absorb the venture capital financing and at least a part of the savings-banking business that has customarily been conducted by country banks. Some of this business might easily be absorbed by existing institutions, but it might be necessary to establish additional institutions, particularly to supply venture capital. It would seem desirable to surround all such institutions, those existing at present as well as those to be established, with such safeguards as would be appropriate to the fields of credit in which they would specialize.

SPECIALIZATION THROUGH REORGANIZATION

In many respects it appears that the transition to a greater degree of specialization in banking could be accomplished with the least disturbance if existing country banks were reorganized to the end that some would be confined to commercial-banking operations and others to savings-banking operations. Such a reorganization could be accomplished in large measure merely by shifting assets, liabilities, and capital funds among existing institutions, although it appears that special provision would have to be made for institutions to supply venture capital. To limit the operations of existing banks without making provision for institutions to operate primarily in the long-term credit field would create a gap in credit facilities that would interfere with the flow of credit and capital into productive enterprises. Any steps taken towards developing specialized commercial-banking institutions should therefore be accompanied by action for the creation of adequate savings-banking and loan and investment facilities. It appears that existing banks could be most easily adapted to such a change by splitting and recombining their functions.

If a reorganization of this kind were effected, the several types of institutions probably would function as follows:

Commercial banks would handle deposits subject to check, and such time and savings deposits as they could attract without the payment of interest. Their earning assets would consist mainly of conservatively made operating- and working-capital loans, commercial paper, and high-grade bonds maturing within 5 years. Such banks should be able to meet all deposit shrinkages likely to occur, protect depositors against loss, avoid forced liquidations of local loans, and continue lending in substantial volume, during the most unfavorable times.

Savings banks would serve depositors and other investors who might wish a medium of safe investment and who would be willing to sacrifice immediate availability of their funds and high nominal rates of return for such an investment. They probably would be able, under most circumstances, to redeem their obligations at the will of depositors but would not enter into definite agreements to do so. Such securities as they might purchase would consist almost entirely of high-grade bonds of diversified maturities. Their loans would be mainly term loans secured by real estate mortgages and by mortgages on farm chattels. Not being subject to runs by depositors, such banks could make loans of these types on terms suited to the borrowers' needs without fear of being caught in an unliquid position. Their loans, however, would be made on a conservative basis consistent with their promises of safety to depositors.

Loan and investment companies would be organized to operate in a less secure field than is proper for savings banks and a less liquid

field than is proper for commercial banks. Medium-grade bonds of diversified maturities and term loans involving substantial, though not excessive risk, would constitute the bulk of their assets. Their creditors would have no reason to expect the safety provided by savings banks but would expect, in favorable times, returns considerably in excess of the savings-bank rate. There would be no just cause for complaint if such institutions should become frozen, or if their obligations should depreciate substantially in value, during unfavorable periods. In the past some mortgage-loan companies, which raised their funds through the issuance of debentures, have performed functions very similar to those contemplated for loan and investment companies. The investment-trust plan of organization might serve well in this field. There is also a possibility that some form of insurance might be developed to spread the risks of this type of banking and thus facilitate the accumulation of risk capital for investment.

A specialization of banking functions, such as that here proposed, would be inapplicable in many of the smaller towns of Wisconsin because the banking resources of such places are insufficient to support more than one banking institution. From table 65, however, it appears that, although specialized loan and investment companies probably could be developed only in places of more than 5,000 population, communities of 2,500 population or more generally appear able to support at least one specialized commercial bank and one specialized savings bank. For places of less than 2,500 population, other arrangements would be necessary. Banks in such places could be required to departmentalize their businesses and operate each department along the lines suggested for specialized institutions. It is probable, however, that many small places might be served just as conveniently, and more adequately, by branches of specialized banks located in nearby larger places. At the end of 1938, 103 places in Wisconsin were served by bank receiving stations.

ADVANTAGES OF REORGANIZATION

The benefits that would result from such a reorganization may be outlined as follows:

(1) Although savings depositors would have to sacrifice the right of immediate withdrawal, they usually would be able to obtain their funds at will, and as protection against loss they would have not only deposit insurance but a sound underlying banking position. Demand depositors could be reasonably certain that their funds would be available when needed regardless of economic conditions. On funds which commercial and savings banks could not accept for safe or liquid keeping, depositors would have to accept the risk that losses and lack of immediate availability would develop if conditions should become unfavorable. They would have previous knowledge of the volume of such funds, however, and could bargain with loan and investment companies and other investment institutions to obtain returns commensurate with the risks taken with their funds.

TABLE 65.—*Wisconsin towns and cities having 2 or more banks and aggregate deposits of $1,000,000 or more, December 31, 1938* [1]

Population	Total towns and cities [2]	Towns and cities having 2 or more banks and aggregate deposits of $1,000,000 or more		Population	Total towns and cities [2]	Towns and cities having 2 or more banks and aggregate deposits of $1,000,000 or more	
		Total	Percentage of all places			Total	Percentage of all places
	Number	*Number*	*Percent*		*Number*	*Number*	*Percent*
Less than 1,000	261	3	1	10,000-19,999	8	6	75
1,000-2,499	82	13	16	20,000-39,999	13	13	100
2,500-4,999	33	24	73	40,000-99,999	4	4	100
5,000-9,999	20	16	80	100,000 and over	1	1	100

[1] Compiled from first edition of Rand McNally Bankers Directory for 1939.
[2] Excludes places having no banks and 103 places that were served only by offices of banks located in other places.

(2) Borrowers probably would find credit for long-term purposes less easily available during future periods of economic expansion than in past expansion periods. But such credits as they might obtain from savings banks and loan and investment companies for long-term purposes would be extended on a basis better suited to their needs, and they would not be in such danger as in the past of having their loans called at the very time when it would be most inconvenient to pay. Moreover, the supply of funds for making new loans would be more stable.

(3) The general public would gain in several ways. Expansions of credit during periods of increasing prosperity would probably be much better controlled than in the past, since the power of commercial banks to expand credit on the basis of long-term loans and investments would be sharply curtailed. Such increases as might occur in the volume of funds seeking investment or safekeeping would result more from thrift on the part of the public, and less from overextensions of commercial-bank credit, than in the past. During unfavorable periods great benefits should result from the fact that the liabilities of savings banks and loan and investment companies would not be subject to demands for immediate payment. Thus the public would also be relieved from much of the deflationary influence exerted by the existing banking system in periods of economic recession. In these ways a reorganization of banks along the lines described might be expected to contribute to economic stability.

(4) The problem of regulating banks would be simplified. As there would be savings banks to supply intermediate- and long-term credits on a conservative basis, and loan and investment companies to supply such credits for ventures involving considerable risk, the public would not need to depend on commercial banks for these types of advances. The laws and regulations could therefore require liquidity of commercial banks without depriving the borrowing public of intermediate- and long-term credit facilities, and could require safety of savings banks without depriving the public of credit for financing relatively high-risk ventures.

For these advantages the public probably would have to make some sacrifice in convenience of banking service; and, of course, there would be a substantial shifting in the relative positions of existing banks.

Such costs could be held to a minimum if the policies proposed were adopted as long-run objectives to be put into effect gradually. In view of the relatively strong current banking situation, there appears to be no need for haste, but it would seem desirable to institute such changes in time to prevent commercial banks from becoming more deeply involved in the field of long-term credits and to assure that the banking system will remain in a strong position even if there should be a considerable expansion of credit and if Federal policies should be modified. It seems probable, moreover, that specialized savings institutions, and specialized loan and investment companies, would be much more effective than commercial banks even at present in financing capital formation, because such institutions would be justified in extending more long-term credit and credits better suited to the needs of borrowers.

SUMMARY AND CONCLUSIONS

Country banks in Wisconsin at the beginning of the depression were engaged more extensively in savings banking than in commercial banking. Their deposits consisted principally of time accounts, and their assets were mainly capital loans to local farmers and business concerns and long- and medium-term bonds. Many of the bonds and loans involved such large risks as to indicate that the banks had supplied considerable amounts of venture capital.

The depression brought severe shrinkages of deposits which required that the banks liquidate a substantial portion of their loans and investments. At the same time the security for many of the banks' loans was undermined and large amounts of securities became so depreciated that the banks could not afford to sell them. The assets with which the banks had the best success with respect to both liquidation and losses were call loans, commercial paper, short-term high-grade bonds, and loans used to finance the current operations of farmers and business concerns. Huge losses were sustained on long-term bonds of medium and low grades, and there was considerable loss on the banks' capital loans, particularly those that had not been well protected at the beginning of the depression.

Notwithstanding the difficulties of the depression period, the banks liquidated a larger volume of assets than was needed to meet depositors' demands. Most of this excess liquidation occurred during the first 2 years of the depression before deposit shrinkages were very great. Such proceeds of liquidation as were not needed at this time for meeting depositors' demands were reloaned or reinvested. By the latter part of 1931, however, deposit shrinkages were absorbing virtually all the funds that could be obtained by liquidating assets and the banks' new loans and investments were reduced to very low levels. Heavy pressures were exerted upon borrowers, moreover, for the liquidation of their outstanding capital loans.

Despite the virtual cessation of new lending and investment and the pressures that were brought to bear on borrowers to reduce their continuing lines of credit, many country banks sustained depletions of reserves that caused them either to close their doors or to invoke stabilization procedures involving waivers by depositors. Still greater numbers were closed or stabilized owing to insolvency. Of the banks operating at the end of 1929 in places of less than 5,000 population,

the deposits of all but 19 percent were affected by restrictions of one kind or another before the depression was over, and the deposits of 57 percent were either waived in part to depositors' trusts or left with receivers for final liquidation.

Numerous steps have been taken during recent years to enlarge rediscount and refinancing facilities, to improve the quality of bank assets, to safeguard depositors, and to reduce the probability of runs upon banks. Public expenditures have been of great assistance to many banks. These measures, however, afford only partial protection against the defects of the banking system. Country banks are still susceptible to severe deposit shrinkages, wholly apart from those resulting from runs by depositors. Moreover, they are still engaged principally in capital financing. As country banks are not likely to borrow heavily, except as a last resort, it is still possible that future depressions, like those of the past, will be accompanied by acute shortages of country bank credit and forced liquidations of the capital loans held by country banks. The possibility would have to be regarded as a probability if bank credit should be expanded substantially further or if Federal policies should be changed to give less assistance to banks.

Emphasis has been placed on the need of the country for a banking system that is capable of withstanding the strains of depression. This is because widespread banking difficulties are almost exclusively a depression phenomenon. So long as depressions may continue to occur, the problem of avoiding such difficulties seems to be that of developing banks that can withstand greater strain than banks of the past have been able to withstand.

It seems not an unreasonable assumption, moreover, that the severity of depressions might be reduced materially if the banking system could be made more capable of maintaining its solvency and performing its credit functions under unfavorable conditions. The recession from 1929 to 1933 must have been intensified greatly by the freezing for longer or shorter periods of vast sums of bank deposits, by forced liquidations of bank assets, and by the evaporation of bank lending power over wide reaches of the country. Not only did these developments force large amounts of securities, real estate, and capital goods on the markets, but they also reduced the purchasing power of the public and, perhaps equally as bad, altered the distribution of purchasing power in such manner as to render much of it ineffectual.

The disturbance occasioned by banking difficulties might have been avoided to a great extent by a better organization and management of the banking system. Though it probably was inevitable that extensive insolvency should have developed in the savings- and investment-banking structure under the conditions that arose during the depression, it was not necessary that the commercial-banking structure should have become insolvent also, or that either savings and investment institutions or commercial banks should have made such drastic forced liquidations of assets. Insolvency in the commercial-banking structure, at least in Wisconsin, was due mainly to losses incurred in the savings and investment operations of commercial banks, and might have been avoided, for the most part at least, had commercial banking been separated from these types of operations. Forced liquidations were occasioned principally by the practice of financing

the long-term capital market with funds repayable on demand or at short notice. Had savings and investment institutions been protected against demands for payment, and had commercial banks confined themselves to commercial banking, forced liquidations during the depression would have been greatly reduced.

The possibility of avoiding such developments in future depressions by separating commercial banking from other types of banking, by requiring commercial banks to be operated according to commercial-banking principles, and by altering the contractual arrangements between savings- and investment-banking institutions and their creditors, is worthy of serious consideration. Numerous inconveniences that might be experienced in trying to bring about a reorganization of this kind seem clearly to be outweighed by the advantages of the stronger and more serviceable banking institutions which might confidently be expected to result from such a reorganization. Nor would the advantages gained be confined to better protection against the disintegration of banking facilities in times of depression. Specialized institutions, operating under safeguards appropriate to their respective fields, would be more serviceable at all times, and subject to more effective public supervision, than the present system of combination banking.

A reorganization of banking in these directions would not conflict with efforts to stabilize economic conditions through the use of social controls or with measures taken to strengthen the banking system through improvement of discount and refinancing facilities. On the contrary, the main effect should be to reduce the need for governmental action. By strengthening its fabric and by adapting it better to the work it is needed to perform, the banking system can be made to exert a more stabilizing effect on the economy and the burdens upon Government can thereby be reduced.

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