FEDERAL RESERVE BANK

OF NEW YORK

[Circular No. 1030
April 14, 1931]

A Comparison of the Operating Ratios of Representative Member Banks in the Second Federal Reserve District For the Year 1930

Grouped according to size of banks and character of business

FOLLOWING the practice of past years, this bank has prepared an analysis of the 1930 operating ratios of representative member banks in this district based on quarterly condition reports and semi-annual earnings reports. The 1930 ratios are compared in the following tables with those of 1929 and 1928 for groups of banks of varying size, and also for groups of banks classified according to the proportion of time deposits to gross deposits.

The ratio of gross earnings to total available funds was somewhat lower in 1930 than in 1929 for all groups of banks, due in part to a reduction in the proportion of funds employed in loans, which in general give a somewhat higher rate of return than investments, and in part to a lower rate of income from both loans and short-term investments. The large New York City banks were especially affected by the rapid decline in interest rates on loans and in yields on high-grade, short-term investments, of which they were the principal buyers. Banks in the smaller localities usually maintain the same rates on loans year after year, regardless of conditions in the New York money market, and do not ordinarily make heavy investments in such securities as short-term United States Treasury certificates and Treasury bills, the yields on which fluctuate closely with open market conditions.

Expenses did not show reductions corresponding to the decline in gross earnings, so that the ratio of expenses to gross earnings was higher for all groups of banks. Due largely to the present inflexibility of interest rates paid on deposits, especially outside of the large cities, interest payments took a larger proportion of gross earnings than in the preceding year. The only principal item of expense which was generally lower than in 1929 was interest on borrowed money, which declined partly because of reduced indebtedness and partly because of the lower rates of discount on loans from the Reserve Bank and also from the city correspondents of country banks.

By far the most important effects of the depressed business conditions during 1930 are reflected in unusually heavy losses charged off on loans and on securities. Losses charged off on securities were particularly heavy for the smaller banks and especially those whose holdings included any considerable number of bonds chosen for their high yield, since bonds of this type suffered a severe decline in value toward the end of the year.

Partly because of the reduced rate of net earnings, which was the lowest in the eight years covered by these studies, but more largely due to the heavy losses charged off, the ratio of net profits (after charge-offs but before dividends) to capital funds declined drastically (ratio 12, shown this year for the first time). No group of banks showed a ratio of net profits to capital funds as much as one-half as high as in either of the two preceding years; one group showed no net profits; and the two groups of banks smallest in size showed net losses for the year.

As usual a space has been provided under each group in Table 1 for the insertion of the figures of any bank which may wish to compare its operations with those of other banks of similar size.

Table 1—Average Operating Ratios of Representative Member Banks in Seven Groups

(40 selected banks in each group *a*)

Read the table as follows: In the banks of Group I (banks with loans and investments under $500,000) capital funds averaged 18.5 per cent of gross deposits in 1928, 18.3 per cent in 1929, and 18.5 per cent in 1930.

Banks grouped according to amount of loans and investments

Ratios expressed in percentages	General Average All Groups 1923-1930 Av.	1923	1924	1925	1926	1927	1928	1929	*1930*	I Under $500,000 1928	1929	*1930*	Your Figures
CAPITAL													
1. Capital funds *b* to gross deposits	16.1	16.1	15.6	15.3	15.4	15.3	15.7	16.9	*18.3*	18.5	18.3	*18.5*	
LOANS AND INVESTMENTS													
2. Loans and investments to total available funds *c*	85.0	85.1	84.4	84.8	84.3	85.0	85.3	86.0	*85.0*	84.8	86.7	*85.4*	
3. Loans to loans and investments	59.1	56.9	56.9	56.9	58.8	59.3	60.2	63.0	*60.7*	53.7	55.1	*54.5*	
DEPOSITS													
4. Demand deposits to gross deposits	50.8	57.2	55.2	54.4	52.0	50.2	47.4	45.4	*44.8*	43.7	39.7	*38.3*	
5. Interest paid on demand deposits to demand deposits *d*							1.0	0.9	*0.9*	0.4	0.3	*0.4*	
6. Interest paid on time deposits to time deposits *d*							3.4	3.6	*3.5*	3.6	3.7	*3.7*	
EARNINGS													
7. Income from loans to loans *d*							5.7	5.9	*5.6*	5.8	6.0	*6.0*	
8. Income from investments to investments *d*							5.3	5.3	*5.1*	5.4	5.2	*5.4*	
9. Gross earnings to total available funds *c*	5.4	5.2	5.2	5.2	5.4	5.4	5.5	5.7	*5.3*	5.4	5.6	*5.4*	
10. Net earnings to total available funds *c*	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.7	*1.4*	1.4	1.6	*1.3*	
11. Net earnings to capital funds *b*	13.0	13.6	13.4	13.7	13.8	13.3	13.0	13.3	*10.2*	10.6	11.8	*9.3*	
12. Net profits to capital funds *b e*						10.4	9.8	8.3	*1.2*	7.9	6.9	**2.1*	
SOURCES OF EARNINGS Ratio of the following to gross earnings:													
13. Income from loans *d*						86.0	52.7	56.1	*54.6*	47.5	52.1	*51.2*	
14. Income from investments *d*							34.0	31.2	*32.8*	40.7	37.3	*39.1*	
15. Profit on securities sold *e* (deduct ratio 26 for net)						7.4	6.5	5.7	*4.6*	6.7	5.6	*4.1*	
16. Income from Trust Department *d*						6.6	0.8	1.2	*1.6*	0	0	*0*	
17. All other earnings *d*							6.0	5.8	*6.4*	5.1	5.0	*5.6*	
DISPOSITION OF GROSS EARNINGS Ratio of the following to gross earnings:													
18. Salaries and wages	18.8	18.8	19.1	18.5	18.6	18.9	18.5	18.1	*20.0*	21.5	21.1	*22.8*	
19. Interest paid on borrowed money	1.3	1.6	0.8	1.0	1.2	1.0	1.6	2.1	*1.3*	1.6	2.1	*1.5*	
20. Interest paid on demand deposits *d*	36.3	34.3	35.9	36.2	36.1	36.7	8.2	7.0	*7.1*	3.6	2.2	*2.2*	
21. Interest paid on time deposits *d*							29.0	29.1	*30.8*	31.7	32.4	*33.5*	
22. All other expenses	14.8	15.9	15.5	15.0	15.0	14.5	14.2	13.8	*14.6*	15.4	14.7	*15.7*	
23. Total current expenses	71.2	70.6	71.3	70.7	70.9	71.1	71.5	70.1	*73.8*	73.8	72.5	*75.7*	
24. Net earnings (before charge-offs and recoveries)	28.8	29.4	28.7	29.3	29.1	28.9	28.5	29.9	*26.2*	26.2	27.5	*24.3*	
25. Losses charged off on loans and discounts	4.0	4.0	4.3	3.7	3.4	2.8	3.5	3.9	*6.5*	3.3	2.4	*5.0*	
26. Losses charged off on securities	4.5	4.4	2.6	2.0	2.0	2.0	2.7	6.1	*14.2*	1.8	6.3	*21.4*	
27. Net profits *e* (after all losses and depreciation charged off and recoveries, but before dividends)						23.1	22.2	19.5	*5.0*	20.1	16.8	**3.6*	

Ratios expressed in percentages	II $500,000 to $999,999 1928	1929	*1930*	Your Figures	III $1,000,000 to $1,999,999 1928	1929	*1930*	Your Figures	IV $2,000,000 to $4,999,999 1928	1929	*1930*	Your Figures
CAPITAL												
1. Capital funds *b* to gross deposits	18.6	19.4	*20.4*		15.8	16.7	*17.2*		13.2	14.3	*16.9*	
LOANS AND INVESTMENTS												
2. Loans and investments to total available funds *c*	86.0	87.5	*86.4*		88.3	87.9	*87.3*		88.8	89.1	*86.7*	
3. Loans to loans and investments	51.0	54.5	*51.2*		54.6	58.5	*56.8*		59.2	62.6	*62.7*	
DEPOSITS												
4. Demand deposits to gross deposits	43.9	42.0	*41.6*		36.6	35.3	*35.8*		35.0	34.2	*33.1*	
5. Interest paid on demand deposits to demand deposits *d*	0.4	0.4	*0.4*		0.7	0.7	*0.7*		1.0	1.0	*1.0*	
6. Interest paid on time deposits to time deposits *d*	3.5	3.7	*3.6*		3.5	3.7	*3.6*		3.6	3.7	*3.7*	
EARNINGS												
7. Income from loans to loans *d*	5.8	5.9	*5.8*		5.8	5.9	*5.7*		5.7	5.9	*5.7*	
8. Income from investments to investments *d*	5.6	5.5	*5.5*		5.5	5.4	*5.5*		5.7	5.5	*5.2*	
9. Gross earnings to total available funds *c*	5.5	5.6	*5.4*		5.8	5.7	*5.5*		5.6	5.8	*5.4*	
10. Net earnings to total available funds *c*	1.7	1.7	*1.5*		1.7	1.6	*1.5*		1.5	1.6	*1.2*	
11. Net earnings to capital funds *b*	12.8	12.2	*10.6*		13.8	12.8	*11.0*		13.7	13.9	*9.9*	
12. Net profits to capital funds *b e*	9.6	6.0	**2.2*		10.4	7.5	*0*		9.7	7.5	*1.2*	
SOURCES OF EARNINGS Ratio of the following to gross earnings:												
13. Income from loans *d*	46.4	48.7	*48.3*		49.6	54.6	*52.2*		52.7	56.5	*57.7*	
14. Income from investments *d*	42.6	41.9	*42.9*		38.4	34.9	*38.0*		36.5	32.3	*32.1*	
15. Profit on securities sold *e* (deduct ratio 26 for net)	6.8	5.6	*4.3*		8.5	6.7	*5.3*		5.9	5.9	*4.2*	
16. Income from Trust Department *d*	0	0	*0*		0.1	0.1	*0.2*		0.5	0.5	*0.6*	
17. All other earnings *d*	4.2	3.8	*4.5*		3.4	3.7	*4.3*		4.4	4.8	*5.4*	
DISPOSITION OF GROSS EARNINGS Ratio of the following to gross earnings:												
18. Salaries and wages	18.7	19.5	*21.1*		18.4	18.2	*20.2*		17.3	16.9	*18.5*	
19. Interest paid on borrowed money	1.4	2.1	*1.4*		1.1	1.8	*1.6*		1.1	1.7	*1.1*	
20. Interest paid on demand deposits *d*	3.3	2.2	*2.9*		3.1	3.7	*3.1*		5.5	5.7	*5.3*	
21. Interest paid on time deposits *d*	31.2	31.5	*33.2*		35.1	34.9	*36.4*		37.0	36.0	*38.5*	
22. All other expenses	15.2	14.8	*14.0*		13.5	13.2	*13.7*		12.6	12.1	*13.2*	
23. Total current expenses	69.8	70.1	*72.6*		71.2	71.8	*75.0*		73.5	72.4	*76.6*	
24. Net earnings (before charge-offs and recoveries)	30.2	29.9	*27.4*		28.8	28.2	*25.0*		26.5	27.6	*23.4*	
25. Losses charged off on loans and discounts	2.9	4.1	*3.5*		3.2	2.4	*6.2*		4.2	4.6	*6.9*	
26. Losses charged off on securities	2.5	9.2	*24.3*		4.3	8.6	*16.5*		2.9	5.3	*13.9*	
27. Net profits *e* (after all losses and depreciation charged off and recoveries, but before dividends)	25.1	16.6	*0.9*		21.9	17.2	*2.4*		18.9	15.5	*1.4*	

Ratios expressed in percentages	V $5,000,000 to $9,999,999 1928	1929	*1930*	Your Figures	VI $10,000,000 and up outside N. Y. C. 1928	1929	*1930*	Your Figures	VIIa $10,000,000 and up N. Y. C. 1928	1929	*1930*	Your Figures
CAPITAL												
1. Capital funds *b* to gross deposits	13.9	14.6	*15.5*		13.4	14.9	*16.0*		16.5	20.4	*23.5*	
LOANS AND INVESTMENTS												
2. Loans and investments to total available funds *c*	87.6	88.7	*87.7*		85.1	87.8	*85.7*		76.7	74.0	*75.5*	
3. Loans to loans and investments	63.1	63.9	*62.2*		65.1	69.5	*67.5*		74.9	77.1	*70.0*	
DEPOSITS												
4. Demand deposits to gross deposits	42.6	38.4	*36.1*		49.6	47.6	*48.9*		80.6	80.6	*79.9*	
5. Interest paid on demand deposits to demand deposits *d*	1.4	1.2	*1.2*		1.6	1.5	*1.6*		1.3	1.3	*1.1*	
6. Interest paid on time deposits to time deposits *d*	3.5	3.7	*3.7*		3.6	3.6	*3.5*		2.7	2.9	2.7	
EARNINGS												
7. Income from loans to loans *d*	5.7	6.0	*5.8*		5.7	5.8	*5.7*		5.1	6.0	*4.6*	
8. Income from investments to investments *d*	5.2	5.4	*5.0*		5.1	5.3	*4.9*		4.8	4.9	*4.4*	
9. Gross earnings to total available funds *c*	5.6	5.9	*5.6*		5.5	5.8	*5.5*		5.0	5.4	*4.6*	
10. Net earnings to total available funds *c*	1.6	1.8	*1.4*		1.5	1.7	*1.4*		1.7	2.0	*1.5*	
11. Net earnings to capital funds *b*	14.0	15.5	*11.7*		13.4	13.9	*10.5*		12.8	12.8	*8.4*	
12. Net profits to capital funds *b e*	10.4	9.9	*3.7*		9.9	9.9	*4.6*		10.9	10.2	*3.2*	
SOURCES OF EARNINGS Ratio of the following to gross earnings:												
13. Income from loans *d*	55.1	56.7	*56.8*		58.2	61.4	*61.4*		58.9	63.0	*54.9*	
14. Income from investments *d*	32.1	30.6	*30.8*		28.3	24.9	*24.9*		19.6	16.1	*21.9*	
15. Profit on securities sold *e* (deduct ratio 26 for net)	7.4	7.0	*5.5*		5.9	5.7	*4.4*		4.5	3.1	*4.2*	
16. Income from Trust Department *d*	0.8	1.0	*1.9*		1.6	2.1	*2.7*		2.7	4.9	*5.9*	
17. All other earnings *d*	4.6	4.7	*5.0*		6.0	5.9	*6.6*		14.3	12.9	*13.1*	
DISPOSITION OF GROSS EARNINGS Ratio of the following to gross earnings:												
18. Salaries and wages	16.6	16.0	*17.3*		16.3	16.6	*17.8*		20.5	18.8	*21.9*	
19. Interest paid on borrowed money	1.6	2.1	*0.9*		2.4	2.8	*1.9*		2.1	1.9	*0.5*	
20. Interest paid on demand deposits *d*	10.1	7.9	*7.4*		13.0	11.0	*12.5*		18.8	16.1	*16.6*	
21. Interest paid on time deposits *d*	31.1	32.4	*35.7*		28.2	27.3	*28.4*		8.6	9.1	*10.1*	
22. All other expenses	13.3	12.3	*13.5*		13.3	12.8	*13.9*		16.4	16.7	*18.2*	
23. Total current expenses	72.7	70.7	*74.8*		73.2	70.5	*74.5*		66.4	62.6	*67.3*	
24. Net earnings (before charge-offs and recoveries)	27.3	29.3	*25.2*		26.8	29.5	*25.5*		33.6	37.4	*32.7*	
25. Losses charged off on loans and discounts	3.3	4.6	*6.3*		4.4	4.9	*6.3*		3.2	4.6	*11.5*	
26. Losses charged off on securities	3.9	6.4	*9.1*		2.2	3.6	*6.4*		1.6	3.3	*7.6*	
27. Net profits *e* (after all losses and depreciation charged off and recoveries, but before dividends)	20.7	19.0	*8.5*		20.0	21.2	*11.8*		29.0	30.0	*13.6*	

a—Group VII, 28 banks in 1930, 30 banks in 1929, 35 banks in 1928, due to consolidations and mergers. *b*—Capital, surplus, and undivided profits. *c*—Capital, surplus, undivided profits, deposits, borrowed money, and notes in circulation. *d*—Not computed prior to 1928. *e*—Not computed prior to 1927.

Bank deposits are included in demand deposits. *—Deficit.

Ratios 1 to 11 are computed from the average figures of condition reports, and from yearly aggregate figures of section one of the semi-annual earnings reports; ratio 12 from figures of item 6 of section two of the semi-annual earnings reports, and from average figures of condition reports; ratios 13 to 24 from figures of section one of the semi-annual earnings reports; ratios 25 and 26 from figures of items 5 (*a*) and 5 (*b*) of section two, and item 1 of section one of the semi-annual earnings reports: ratio 27 from figures of item 6 of section two, and item 1 of section one of the semi-annual earnings reports.

The same banks were used in each year, except for a few substitutions for banks which changed their classes.

Table 2—Average Operating Ratios of Representative Member Banks Grouped According to Amount of Time Deposits

Read the table as follows: In banks with time deposits equal to less than 25 per cent of their gross deposits, capital funds averaged 18.8 per cent of gross deposits in 1928, 21.4 per cent in 1929, and 24.5 in 1930.

Ratios expressed in percentages	Banks grouped according to the percentage of time deposits to gross deposits: Under 25%			25% to 49.9%			50% to 74.9%			75% and up		
	1928	1929	1930	1928	1929	1930	1928	1929	1930	1928	1929	1930
CAPITAL												
1. Capital funds b to gross deposits	18.8	21.4	24.5	17.1	18.1	18.3	14.8	15.9	17.3	13.9	15.0	15.7
LOANS AND INVESTMENTS												
2. Loans and investments to total available funds c	78.3	74.8	75.9	85.2	86.0	84.2	86.3	88.0	86.6	89.4	90.9	89.3
3. Loans to loans and investments	70.7	74.0	70.1	65.1	68.4	63.5	58.0	61.1	59.9	49.5	52.1	51.5
DEPOSITS												
4. Demand deposits to gross deposits	90.0	90.9	89.2	58.8	60.0	60.0	36.9	35.8	35.9	20.5	20.2	20.3
5. Interest paid on demand deposits to demand deposits	1.3	1.3	1.2	1.2	1.2	1.1	0.8	0.8	0.8	0.7	0.7	0.7
6. Interest paid on time deposits to time deposits	2.4	2.6	2.4	3.4	3.4	3.5	3.6	3.7	3.7	3.7	3.9	3.9
EARNINGS												
7. Income from loans to loans	5.3	6.0	4.9	5.7	5.9	5.6	5.7	5.9	5.8	5.7	5.9	5.7
8. Income from investments to investments	4.9	4.8	4.3	5.2	5.3	5.0	5.4	5.5	5.3	5.6	5.5	5.3
9. Gross earnings to total available funds c	4.9	5.2	4.5	5.4	5.6	5.2	5.6	5.7	5.5	5.9	6.0	5.6
10. Net earnings to total available funds c	1.6	2.0	1.5	1.6	1.8	1.3	1.5	1.6	1.4	1.6	1.7	1.5
11. Net earnings to capital funds b	12.1	12.7	8.7	12.7	13.5	9.6	13.1	12.9	10.1	14.3	14.9	11.9
12. Net profits to capital funds b	9.7	10.7	5.5	10.4	8.5	0.3	9.5	7.2	*0.3	10.4	9.6	3.3
SOURCES OF EARNINGS Ratio of the following to gross earnings:												
13. Income from loans	59.4	63.7	58.7	59.5	62.4	57.4	51.2	54.7	54.8	43.9	47.0	48.2
14. Income from investments	23.7	18.1	22.2	28.3	24.9	30.1	36.5	34.2	34.5	43.6	40.7	41.2
15. Profit on securities sold (deduct ratio 26 for net)	4.0	3.4	4.1	5.0	6.1	4.3	7.1	5.5	4.1	9.2	8.5	6.7
16. Income from Trust Department	2.4	4.6	5.3	0.9	1.1	1.8	0.3	0.5	0.8	0.3	0.4	0.5
17. All other earnings	10.5	10.2	9.7	6.3	5.5	6.4	4.9	5.1	5.8	3.0	3.4	3.4
DISPOSITION OF GROSS EARNINGS Ratio of the following to gross earnings:												
18. Salaries and wages	22.5	20.3	22.8	20.4	20.8	23.2	17.6	17.9	19.6	14.8	14.1	15.9
19. Interest paid on borrowed money	2.5	2.5	1.0	2.2	1.9	0.9	1.4	2.2	1.5	0.8	1.4	1.0
20. Interest paid on demand deposits	20.6	18.2	18.9	11.6	10.6	10.8	4.6	4.3	4.5	2.0	1.8	1.9
21. Interest paid on time deposits	5.1	4.4	5.4	21.6	20.1	22.5	35.1	34.5	35.7	44.4	43.7	45.6
22. All other expenses	16.3	16.4	17.8	15.5	15.6	17.2	14.1	13.5	14.1	10.8	10.1	10.9
23. Total current expenses	67.0	61.8	65.9	71.3	69.0	74.6	72.8	72.4	75.4	72.8	71.1	75.3
24. Net earnings (before charge-offs and recoveries)	33.0	38.2	34.1	28.7	31.0	25.4	27.2	27.6	24.6	27.2	28.9	24.7
25. Losses charged off on loans and discounts	3.3	2.6	4.4	2.4	4.7	9.2	3.7	4.2	6.8	3.7	2.9	3.4
26. Losses charged off on securities	2.0	3.6	5.6	1.9	6.5	14.8	3.0	6.5	16.8	3.5	6.9	12.7
27. Net profits (after all losses and depreciation charged off and recoveries, but before dividends)	27.5	32.3	23.6	23.6	19.3	0.1	20.6	15.9	0.7	20.0	19.1	8.0
Number of banks in group	47	35	33	39	39	38	151	156	152	38	40	45

*Deficit. For other footnotes see Table 1.

FEDERAL RESERVE BANK
OF NEW YORK

[To accompany
Circular No. 1030]

April 14, 1931.

To all Member Banks in the
Second Federal Reserve District:

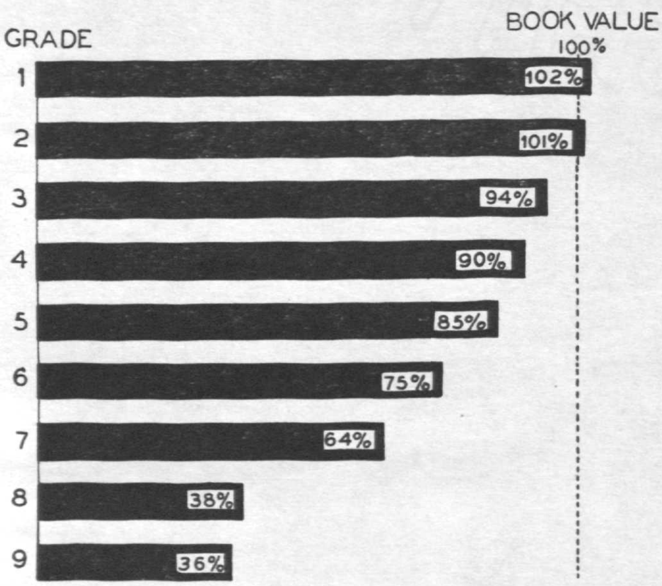
The enclosed copy of this bank's comparison of the operating statistics of representative member banks in this district is of special interest for the year 1930 as it reveals the effects on banks of the business depression through which the country has been passing. The figures show the points at which banks incurred losses and a study of them may suggest the desirability of changes in banking practice in order to avoid or diminish similar losses in the future.

The experience of the last year seems to indicate that in the case of certain groups of banks, consideration might properly be given, first, to greater flexibility in the rates of interest paid on deposits and dividends paid and, second, to the selection of bonds of higher grades.

Interest paid on time deposits absorbed a larger proportion of gross earnings than in any previous year for which figures are available. This was undoubtedly because the interest rates paid on these deposits were not sufficiently flexible to enable banks to adjust their out-payments to the generally lower return on their earning assets. With present low levels of interest rates it appears to be very difficult for commercial banks to continue to pay as high interest rates on time deposits as in more normal times, and still operate both safely and profitably.

Perhaps the most serious feature of the year's operations is to be found in losses on loans and on securities. For the 268 banks studied, losses charged off on loans constituted 6.5 per cent of gross earnings compared with an average of 4.0 per cent for the years 1923-1930, and losses on securities 14.2 per cent compared with an average of 4.5 per cent for 1923-1930. Probably the losses on loans were in many cases inevitable in view of the business depression. The losses on securities, however, were directly related to the quality of bonds held by different banks. Generally speaking the heaviest losses occurred in the smaller banks which have a large proportion of their funds invested in bonds, and which have been led, partly because of the high interest rates paid on time deposits, to purchase bonds with high interest yields. Such bonds in general have recently shown much more serious depreciation than higher grade bonds giving lower yields.

In order to secure more complete evidence upon this point an analysis has been made of the security holdings of one hundred member banks in this district on the basis of information in recent reports of examination. The following diagram summarizes the results. It shows a comparison of the market value with the book value of the bonds held by these banks, classified according to their quality as indicated by the ratings assigned by the various security rating services. The diagram shows that for the two groups of bonds of highest ratings—bonds giving relatively low yields with a high degree of safety—the market value at the time of recent examinations showed an appreciation over book value. All other groups of bonds showed depreciation from book value and this depreciation was in direct relationship to the quality of the bonds. Bonds which were in default at the time of examination, market prices of which would average even lower, were omitted from the diagram. The recent experience indicates the necessity, in a bank's selection of bonds, of having regard not alone to the price and yield of the bonds at the time of purchase, but more particularly to the quality of the bonds and their capacity to maintain their value during periods of adversity.



Recent Market Value Compared with Book Value of Various Grades of Bonds Held by 100 Member Banks in Second Federal Reserve District (Market value at time of latest examination)

J. H. CASE,
Chairman.