

Railroad

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Chairman Eells -

March 24, 1938

To: Board of Governors

From: Mr. Goldenweiser

Attached is a copy of a memorandum on the relation of the banks to the railroad problem hurriedly prepared in response to a request made of me by Commissioner Mahaffie of the Interstate Commerce Commission for available information on this subject. The memorandum presents an analysis of information assembled from call reports and examination reports by the Board's Divisions of Bank Operations and of Examinations and at our request by the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, and Chicago, and by the Federal Deposit Insurance Corporation.

In addition to aggregate figures taken from call reports showing for various groups of banks holdings of railroad bonds, capital funds, and total assets, analysis was made of data for individual banks showing ratios between book values of railroad bond holdings and capital and ratios of depreciation on railroad bonds.

The principal conclusion of the memorandum is that a permanent revaluation of railroad bonds at about the present level of market prices should not result in a widespread wave of bank failures, but that it would cause trouble for a considerable number of country banks, member and non-member, in the northern and eastern districts and for mutual savings banks. The exact number of banks that would be in difficulty could not be determined without an analysis of the "net sound" capital position of the banks holding large amounts of railroad bonds and of the quality of the bonds held. Such an analysis would require much more time than was available to us.

STRICTLY CONFIDENTIAL

March 21, 1938

RELATION OF THE BANKS TO THE RAILROAD PROBLEM

Summary

Since the banks of the country hold about one-sixth of the outstanding bonds of the railroads, the level of prices of railroad bonds is of great importance to the banking system. In view of the fact that railroad bonds comprise only three percent of the total assets of the banks, however, a readjustment in railroad bond prices would not have an important effect on the position of the great majority of banks. Some banks, however, largely concentrated in the northern and eastern States, would be considerably affected. It appears that a permanent readjustment in railroad bond values could be made without resulting in a broad wave of bank failures, but that a number of banks in some sections of the country might be seriously affected. This conclusion is based on the assumption of a reasonable decline in railroad bonds, rather than a severe collapse, temporary or otherwise, and makes no allowance for possible effects on other bond values.

The ratio of railroad bonds to total assets and to capital of banks varies considerably among different types of banks and also geographically. The ratio to capital is a more significant indication of how banks may be affected by declines in railroad bond values. This ratio, based on book values, is slightly over 10 percent for central reserve and reserve city member banks and for country banks in the southern and western States, while for country banks in the northern and eastern States it is generally more than 30 percent, and for mutual savings banks amounts to about 75 percent.

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Over a third of the country banks in the northern and eastern States hold railroad bonds amounting to more than 50 percent of their capital, and about 5 percent of them have bond holdings which exceed their capital funds.

A survey of a number of the reports of bank examinations made in recent months indicates that there has been an average depreciation from book value of about 20 percent in the railroad bond holdings of banks. This is somewhat less than the decline that has occurred during the past year in market prices of railroad bonds. This decline has varied from 15 to 50 percent for the different grades of bonds. Some of the factors causing this difference are discussed in this memorandum, the principal one presumably being that the banks carry bonds on their books at prices lower than the high market prices of last year. Further declines in railroad bond prices are likely to be more fully reflected in the value of the banks' holdings.

Nature of the problem

To estimate the effect on the position of the banks of the country of any broad readjustment in the financial structure of the railroads requires an analysis (1) of the amount of railroad bonds held by the banks, (2) of the quality of such bonds held, (3) of the effect on the capital position of banks of any substantial decline in the price of railroad bonds, and (4) of the effect on the earning position of banks of any reduction in interest payments on railroad obligations. Only a limited amount of the information needed to provide answers to these questions is readily available and most of that is in the form of aggregates by groups of banks. A proper appraisal of the problem requires information by individual banks. Such information as was immediately available to throw light on the problem is presented in this memorandum.

The amount of railroad securities held by banks

The banks of the country hold about one-sixth of all the railroad bonds outstanding. As shown in Table I, banks for which figures are available hold over \$2,000,000,000 of railroad bonds. The total amount of such bonds held by investors other than railroads is in the neighborhood of \$12,000,000,000. Of the more than \$2,000,000,000 of railroad bonds held by banks, member banks of the Federal Reserve System hold nearly \$900,000,000, nonmember insured banks about \$250,000,000, and mutual savings banks close to \$1,000,000,000. Table I does not include figures for private banks or for uninsured commercial banks, which form a relatively small part of the banking structure.

TABLE I. BANK HOLDINGS OF RAILROAD SECURITIES AND
RELATION TO CAPITAL FUNDS AND TOTAL ASSETS
December 31, 1937*

(Amounts in millions of dollars)

| | Holdings of railroad securities | Capital funds | Total assets | Ratio of railroad securities to | |
|-------------------------------------|------------------------------------------|------------------|-----------------|------------------------------------|------------------------------|
| | | | | Capital funds (percent) | Total assets (percent) |
| Member banks of the | | | | | |
| Federal Reserve System - total | 886 | 5,371 | 46,785 | 16.5 | 1.9 |
| Central reserve city banks | | | | | |
| New York City | 165 | 1,606 | 12,721 | 10.3 | 1.3 |
| Chicago | 20 | 255 | 2,906 | 7.9 | 0.7 |
| Reserve city banks | 203 | 1,735 | 16,825 | 11.7 | 1.2 |
| Country banks | | | | | |
| In 5 northern and eastern districts | 433 | 1,220 | 9,344 | 35.5 | 4.6 |
| In 7 southern and western districts | 64 | 555 | 4,989 | 11.6 | 1.3 |
| Nonmember insured banks - total | 246 | 1,057 | 7,417 | 23.3 | 3.3 |
| In 16 northern and eastern States | 214 | 674 | 4,623 | 31.7 | 4.6 |
| In 32 southern and western States | 32 | 383 | 2,794 | 8.4 | 1.2 |
| Mutual savings banks in | | | | | |
| 6 northeastern States | 927 | 1,226 | 10,277 | 75.6 | 9.0 |
| Total | 2,059 | 7,654 | 64,478 | 26.9 | 3.2 |

Explanation of items in table is given on attached sheet.

* Except as noted in explanation for nonmember insured banks and mutual savings banks.

EXPLANATION OF ITEMS IN TABLE I.

Railroad securities - Figures include primarily railroad bonds, although in a few cases some stocks may be included.

Capital funds - This item for member and for nonmember insured banks includes aggregate book value of capital stock, capital notes and debentures, surplus, undivided profits, reserves for contingencies, reserves for stock dividends on common stock, and retirement fund for preferred stock and/or capital notes and debentures. For mutual savings banks it includes aggregate book value of surplus and reserves.

Total assets - Figures for mutual savings banks represent total of capital funds and deposits, which approximates the figure for total assets.

Country member banks - Five northern and eastern Federal Reserve districts for which separate totals are given include the districts of Boston, New York, Philadelphia, Cleveland, and Chicago. Seven southern and western districts include the rest of United States.

Nonmember insured banks - All figures are for June 30, 1937, as figures for December 31, 1937 are not yet available. The figures for the two dates probably would differ but slightly. The 16 northern and eastern States for which separate totals are shown cover approximately the same territory as the five northern and eastern Federal Reserve districts. These States are Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Ohio, Michigan, Indiana, Illinois, Wisconsin, and Iowa.

Mutual savings banks - The 6 northeastern States covered are Maine, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania. Mutual savings banks in these States hold about 90 percent of deposits in all mutual savings banks in the United States. Figures are as of June 30, 1937 for Pennsylvania and October 30, 1937 for Massachusetts. Other figures are as of December 31, 1937.

Railroad bonds comprise a relatively small part of the total assets of commercial banks, being 2 percent in the case of member banks and 3 percent in the case of nonmember insured banks. Mutual savings banks, however, hold about 9 percent of their total assets in the form of railroad bonds. At city banks railroad bonds comprise only about one percent of total assets.

There is a marked geographical variation in the relative amounts of railroad bonds held by banks. Banks in the northern and eastern districts -- Boston, New York, Philadelphia, Cleveland, and Chicago -- hold much larger amounts of railroad bonds relative to their total assets than do banks in the southern and western districts. So-called country banks among the members of the Federal Reserve System in the five northern and eastern Federal Reserve districts and nonmember insured banks in the corresponding regions hold on the average nearly 5 percent of their assets in the form of railroad bonds. As previously stated, mutual savings banks which are largely in the northeastern States hold 9 percent of their assets in railroad bonds.

Holdings of railroad bonds by reserve city and country member banks in each of the Federal Reserve districts are shown in Table II. It will be noted that country banks in the St. Louis and Minneapolis districts also hold substantial amounts of railroad securities in relation to capital, although not as much as in banks in the more eastern districts. Member banks in Oregon and Washington, in the San Francisco Federal Reserve district, also have relatively large railroad bond holdings.

In view of this geographical concentration of holdings of railroad bonds by banks an analysis of the effect of the railroad situation upon the position of banks may be limited to a study of the situation in the northern and eastern sections of the country.

TABLE II. MEMBER BANK HOLDINGS OF RAILROAD BONDS
IN RELATION TO CAPITAL, BY FEDERAL RESERVE DISTRICTS
December 31, 1937

(Amounts in millions of dollars)

| Federal Reserve district | Central reserve and reserve city banks | | | Country banks | | |
|--------------------------|----------------------------------------|-----------------|-----------------|----------------|-----------------|-----------------|
| | Railroad bonds | Capital account | Ratio (percent) | Railroad bonds | Capital account | Ratio (percent) |
| 1. Boston | 7 | 170 | 4.3 | 56 | 215 | 26.2 |
| 2. New York | 179 | 1,661 | 10.7 | 144 | 364 | 39.6 |
| 3. Philadelphia | 46 | 197 | 23.5 | 124 | 299 | 41.5 |
| 4. Cleveland | 39 | 338 | 11.6 | 62 | 188 | 32.8 |
| 5. Richmond | 11 | 90 | 11.8 | 14 | 112 | 12.2 |
| 6. Atlanta | 8 | 87 | 8.6 | 6 | 86 | 6.6 |
| 7. Chicago | 37 | 393 | 9.5 | 47 | 154 | 30.6 |
| 8. St. Louis | 6 | 89 | 7.2 | 16 | 72 | 22.3 |
| 9. Minneapolis | 4 | 45 | 9.7 | 17 | 67 | 24.7 |
| 10. Kansas City | 11 | 94 | 11.6 | 4 | 74 | 5.1 |
| 11. Dallas | 2 | 78 | 2.3 | 2 | 77 | 2.0 |
| 12. San Francisco | 38 | 352 | 10.7 | 7 | 67 | 10.7 |
| Total | 388 | 3,596 | 10.8 | 498 | 1,775 | 28.0 |

Bank holdings of railroad securities in relation to capital

The ability of banks to absorb a substantial decline of a permanent nature in the values of railroad securities depends in large part upon the capital position of the banks holding these securities. In Table I it will be seen that the railroad securities holdings of member banks amounted to 16 percent of their capital funds, being close to 10 percent for central reserve and reserve city banks and for country banks in the southern and western districts and about 35 percent for country banks in the five northern and eastern districts. Nonmember insured banks in the northern and eastern sections of the country also hold railroad obligations amounting to over 30 percent of their capital funds, while mutual savings banks hold such obligations amounting to about 75 percent of their aggregate surplus and reserves, a figure which represents the margin of their assets over deposit liabilities as do the capital funds of stock banks.

Analysis of individual member banks in northern and eastern districts

It is not possible in a short time to make a detailed analysis of the capital position of all banks holding substantial amounts of railroad securities but in order to provide a partial answer to this question figures have been compiled showing the ratio of the book value of railroad securities held and the book value of all capital funds of each member bank in the five northern and eastern Federal Reserve districts, i. e. the Federal Reserve districts of Boston, New York, Philadelphia, Cleveland, and Chicago. A summary of these figures is presented in Table III which gives a distribution of banks according to the percentage of their railroad bond holdings to their capital funds.

TABLE III. RELATION OF RAILROAD BOND HOLDINGS TO CAPITAL OF MEMBER BANKS
IN FIVE NORTHERN AND EASTERN FEDERAL RESERVE DISTRICTS
December 31, 1937 ^{1/}

(Amounts in millions of dollars)

| Ratio of railroad bonds to capital (percent) | Central reserve and reserve city banks | | | Country banks | | |
|-------------------------------------------------------|-------------------------------------------|-------------------|--------------------|-----------------------|-------------------|--------------------|
| | Number of banks | Railroad bonds | Capital account | Number of banks | Railroad bonds | Capital account |
| Under 10 | 90 | \$ 60.2 | \$1,859.7 | 636 | \$ 10.3 | \$ 246.6 |
| 10 - 20 | 35 | 56.6 | 336.0 | 360 | 27.3 | 180.0 |
| 20 - 30 | 23 | 35.9 | 145.9 | 379 | 46.1 | 184.5 |
| 30 - 40 | 27 | 58.8 | 170.7 | 352 | 48.7 | 144.2 |
| 40 - 50 | 11 | 18.0 | 40.9 | 323 | 54.5 | 122.7 |
| 50 - 60 | 13 | 82.2 | 148.9 | 242 | 48.1 | 87.6 |
| 60 - 70 | 2 | .4 | .6 | 201 | 41.6 | 64.5 |
| 70 - 80 | 3 | 1.2 | 1.6 | 160 | 47.8 | 64.8 |
| 80 - 90 | - | - | - | 106 | 31.1 | 36.6 |
| 90 -100 | - | - | - | 77 | 23.5 | 25.0 |
| Over 100 | - | - | - | 141 | 51.6 | 42.6 |
| Total | 204 | \$313.3 | \$2,704.3 | 2,977 | \$430.6 | \$1,199.1 |

^{1/} Largely because some of the figures for Chicago district relate to March 7, 1938, the totals in this table do not agree with those given in Table I for country banks in these districts.

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The table shows that of the reserve city banks in these districts 60 percent hold railroad securities amounting to less than 20 percent of their capital funds and less than 10 percent hold such securities in amounts exceeding 50 percent of capital funds. Among country banks, on the other hand, only a third hold railroad securities in amounts of less than 20 percent of capital funds and about the same number hold such securities in amounts exceeding 50 percent of capital funds. Holdings of railroad securities exceeded 100 percent of capital funds in nearly 5 percent of the banks. The 1,000 country banks with the smaller amounts of railroad obligations are of larger size and account for over 35 percent of the capital funds of all country banks in these districts, while the 920 banks with railroad securities exceeding 50 percent of capital have little over a fourth of the total capital.

It should be considered that all of these computations are based on book values and no allowance is made for depreciation or appreciation that has occurred in market values but for which the banks' books have not been adjusted. This is discussed in a later section.

It might be assumed that those banks holding railroad securities amounting to over 100 percent of capital funds would be seriously injured by any permanent decline in value of railroad bonds and many of those having 50 percent of capital in such bonds might be placed in a difficult position.* The number in the former group is small, but that in the latter may be sufficient to be of considerable importance in a number of communities.

* To determine more precisely the number of banks that might be in a serious or difficult position would require an analysis of the "sound" capital position of individual banks and of the quality of the bonds held by each of them. Time did not permit such an analysis for the purposes of this memorandum.

Although it was not possible in a short time to make a careful check of the existing capital position of these banks in relation to total assets, a brief survey of the available reports of examinations made since October 1, 1937, and of member State banks in all districts, and of national banks in the New York district indicate that the capital positions of banks holding relatively large amounts of railroad obligations did not differ substantially from the average for all member banks. Of the 600 national banks in the New York Federal Reserve district, nearly 250 hold railroad bonds amounting to more than 50 percent of capital funds. The available data for 200 of these banks indicate that about two-thirds had ratios of capital to total assets of 12 percent or more, based on book values. The average for all member banks in the New York district and in the country is close to 12 percent. Of these 200 banks, 20 had ratios of capital to assets of less than 10 percent, and most of the 20, it may be observed, had relatively large amounts of railroad bonds in relation to capital. It would appear that these banks, which comprise about 3 percent of all national banks in that district, are in a particularly vulnerable position with respect to the railroad situation.

It should be considered that these comparisons are based on book values of capital and of assets, without allowance for some of the depreciation that has recently occurred in values of assets or in some cases of appreciation. In case there should be a more or less permanent decline in railroad bond values, it follows that banks holding relatively large amounts of railroad bonds, unless they are bonds of the highest grades, will require an adjustment in their capital positions to allow for such depreciation.

Analysis of nonmember banks in eastern States

No comprehensive data for individual nonmember banks are available, but the Federal Deposit Insurance Corporation has kindly supplied us with ratios of railroad bond holdings to capital account on June 30, 1937, for each nonmember insured bank in the States of New York, New Jersey, and Delaware. A tabulation of these figures is given in Table IV. It indicates that nonmember insured banks in these States are in about the same position as member country banks in the same States. About 25 percent of all banks in the group held railroad bonds amounting to less than 20 percent of capital, while about 40 percent of them with 30 percent of the total capital held such bonds amounting to over 50 percent of capital funds, and in the case of about 7 percent railroad bond holdings exceeded capital funds.

TABLE IV. RELATION OF RAILROAD BOND HOLDINGS TO
CAPITAL OF NONMEMBER INSURED BANKS IN NEW YORK,
NEW JERSEY, AND DELAWARE

| Ratio of railroad bond holdings to capital (percent) | Number of banks | Railroad bonds | Capital account |
|------------------------------------------------------------|-----------------------|-------------------|--------------------|
| (In thousands of dollars) | | | |
| Below 10 | 46 | 1,604 | 48,570 |
| 10 - 20 | 24 | 2,223 | 14,328 |
| 20 - 30 | 29 | 3,100 | 12,521 |
| 30 - 40 | 42 | 8,082 | 22,926 |
| 40 - 50 | 32 | 9,802 | 21,731 |
| 50 - 60 | 28 | 7,463 | 13,794 |
| 60 - 70 | 27 | 8,334 | 13,446 |
| 70 - 80 | 20 | 5,432 | 7,327 |
| 80 - 90 | 11 | 3,722 | 4,427 |
| 90 -100 | 14 | 9,217 | 9,807 |
| 100 and over | 22 | 5,275 | 4,106 |
| Total | 295 | 64,354 | 172,983 |

Member banks in southern and western districts

Aggregate figures given in Table I indicate that banks in the southern and western Federal Reserve districts hold much smaller amounts of railroad bonds than those in the northern and eastern districts. Largely for this reason no complete detailed analysis of individual member banks was made of the former districts. An analysis was made of State member banks, for which figures are available in Washington, and the results are given in Table V. These indicate that 248 of the 405 State member "country" banks in these districts hold no railroad bonds at all and that only 24 of these banks had such bonds in excess of 50 percent of capital. It seems that in general the railroad problem is not of serious concern to the banks in those regions, although in some sections railroad security holdings are larger than the average for the region.

TABLE V. RELATION OF RAILROAD BOND HOLDINGS TO CAPITAL
OF MEMBER BANKS IN SEVEN SOUTHERN AND WESTERN FEDERAL
RESERVE DISTRICTS

(Amounts in millions of dollars)

| Ratio of railroad bonds to capital (percent) | Reserve city banks | | | Country banks | | |
|-------------------------------------------------------|-----------------------|-------------------|--------------------|-----------------------|-------------------|--------------------|
| | Number of banks | Railroad bonds | Capital account | Number of banks | Railroad bonds | Capital account |
| None | 9 | .. | 11.4 | 248 | ... | 26.1 |
| Under 10 | 19 | 3.3 | 50.4 | 59 | 1.4 | 28.4 |
| 10 - 20 | 9 | 4.2 | 33.7 | 37 | 2.2 | 14.8 |
| 20 - 30 | 6 | 15.3 | 60.9 | 22 | 1.3 | 5.0 |
| 30 - 40 | 3 | 3.7 | 11.9 | 8 | 0.7 | 2.2 |
| 40 - 50 | <u>1/</u> | <u>1/</u> | <u>1/</u> | 7 | 0.9 | 1.9 |
| 50 - 60 | .. | .. | .. | 12 | 1.4 | 2.5 |
| 60 - 70 | .. | .. | .. | 5 | 1.3 | 1.9 |
| 70 - 80 | .. | .. | .. | 3 | 0.2 | 0.2 |
| Over 80 | <u>1/</u> | <u>1/</u> | <u>1/</u> | 4 | 0.8 | 0.7 |
| Total | <u>1/</u> 48 | <u>1/</u> 29.0 | <u>1/</u> 171.2 | 405 | 10.1 | 83.9 |

1/ Where only one bank falls in a group it is included in the total but not shown separately.

Bank earnings from railroad securities

It may be estimated that the railroad securities held by member banks yield them roughly \$40,000,000 of interest and dividend income per year or about 3 percent of the gross earnings and 10 percent of the net current earnings of the year 1936. ^{*} This amount, of course, does not give any recognition to the influence of capital gains or losses on such securities. As would be expected from the distribution of the securities, the proportion of income which is estimated to accrue in the several Federal Reserve districts varies considerably as a proportion of net current earnings. In the Philadelphia Federal Reserve district estimated earnings from railroad securities were about one-quarter of net current earnings, while in the Boston, New York, Cleveland, and Minneapolis districts the proportions were about one-eighth. In the other districts the proportion was less than 10 percent and in several it was less than five. The earnings from railroad securities would appear to be a somewhat greater proportion of the earnings of nonmember insured banks, and most certainly a substantial source of revenue for the mutual savings banks.

* The year 1936 is not a wholly satisfactory base for comparison since both gross and net current earnings are considerably below pre-depression levels but it is the least unsatisfactory of the recent years. Figures for 1937 are not yet available.

Railroad bond prices

Railroad bonds have recently been selling near their average levels of 1932, the low year of the depression so far as bond prices were concerned. The Dow-Jones average of "high-grade" rail bond prices is still well above the 1932 level, but the Dow-Jones average of "second-grade" rail bond prices has been lower than the 1932 average since the first of this year. The Standard Statistics average of 20 railroad bond prices, which represents a grade of quality intermediate between the two Dow-Jones indexes, was equal to its 1932 level in February and has since declined below that level.

After a steady recovery throughout most of 1935 and 1936, railroad bond prices reached their highs for the recovery in January, 1937. Many bonds, especially those of better quality, were at or above par at this time. Beginning in October, 1937, a sharp decline has been in progress which was interrupted only temporarily in December.

By the middle of March railroad bond prices were 20-50 percent below the highs reached in early 1937 and 10-40 percent below the average in 1934-1935. The lesser measures of decline relate to high-grade rails, the greater measures to "second-grade" bonds.

Depreciation shown on bank holdings of railroad bonds

The average depreciation shown by a sample of member banks examined since the first of October, on their railroad bonds, is about 15 percent. When the banks examined are grouped by month in which the examination was made it is found that the average depreciation was about 6 percent in October, 14 percent in November and December, and 19 percent in January and February.

Declines of bond prices from their highs were 10-25 percent in October, 10-35 percent in November and December and 15-40 percent in January and February, depending upon quality of the bond.

The fact that depreciation from book value on the banks' holdings was nearer to the smaller limits of these ranges of price decline than to the upper limits, does not necessarily mean that bank holdings are predominantly in the best grade of rails, but probably indicates that the book values at which bonds were carried were not as great as the high prices of early 1937, either because the bonds might have been purchased before or after the market reached its top or -- if the bonds were purchased some time ago at around par -- because their book value had already been written down in part. It is probable that both quality of holdings and the book values at which they are carried affect these comparisons between depreciation and price declines, that banks' holdings are not predominantly of the lower grades, and that book values are generally less than par or at least less than the high values of early 1937.

Range of variation in depreciation on railroad bonds at individual banks

A quick survey of results of examination reports of a sample of State member banks in the five northern and eastern districts and of national banks in the New York and Philadelphia districts indicates that there is no general difference between the quality of holdings of those banks which have relatively large amounts of railroad bonds and those with smaller amounts in proportion to capital funds.

About half **the** banks examined showed depreciation less than the average. About 10 percent of them had depreciation of about twice the average -- that is, depreciation corresponding to lower-grade bonds.

Defaulted bonds are apparently not an important factor in holdings. In the Philadelphia district 218 national banks with railroad bond holdings greater than 50 percent of their capital funds held only 4 percent of their rail holdings in defaulted securities, as measured by book value.

Probable effect of further price declines upon value of banks' holdings of railroad bonds

A further decline of railroad bond prices say to 30-60 percent below the 1937 highs (as compared with the losses of 20-50 percent registered by the middle of March) would probably result in the average depreciation on banks' rail holdings reaching something like 35 percent of present book value, or about twice the depreciation shown in January and February. The basis for this estimate is shown in Table VI, in which the figures are in terms of estimated par values. According to these estimates the average depreciation which would be shown for the middle of March would be about 25 percent. A further decline of 10 points in bond prices from the mid-March level would mean an increase of more than one-third in the depreciation on railroad bonds held by banks.

Although average depreciation in such a situation would be about 35 percent, a number of banks, perhaps about 10 percent of them, would then show depreciation of as much as 50-60 percent. Since only about one-third of "country" member banks and insured nonmember banks in the northern and eastern districts hold railroad bonds amounting to 50 percent or more of their capital funds, and since there is no marked variation between depreciation ratios of banks with large and small holdings, it appears that fewer than 5 percent of country banks in the north and east would have more than 30 percent of their capital wiped out if it were necessary to take losses on their holdings at the depressed level under consideration.

TABLE VI. COMPARISON OF RAILROAD BOND PRICES
AND DEPRECIATION SHOWN BY BANKS
(AVERAGES)

| | High-grade rails | "Second-grade" rails | Average |
|---------------------------------------------------------|---------------------|-------------------------|---------|
| Par value | 100 | 100 | 100 |
| Market prices, January 1937 | 113 | 95 | 104 |
| Estimated book value of banks' holdings | 100 | 90 | 95 |
| October 1937: | | | |
| Market prices | 106 | 70 | 88 |
| Depreciation on banks' holdings | | | |
| Computed | +6 (appr.) | 20 | 7 |
| Actual | ... | ... | 6 |
| November-December 1937: | | | |
| Market prices | 103 | 62 | 82½ |
| Depreciation on banks' holdings | | | |
| Computed | +3 (appr.) | 28 | 12½ |
| Actual | ... | ... | 14 |
| January-February 1938: | | | |
| Market prices | 99 | 56 | 77½ |
| Depreciation on banks' holdings | | | |
| Computed | 1 | 34 | 17½ |
| Actual | ... | ... | 19 |
| March 18, 1938: | | | |
| Market prices | 92 | 47 | 69½ |
| Depreciation on banks' holdings | | | |
| Computed | 8 | 43 | 25½ |
| Assumed decline of 30-60 percent below January 1937: | | | |
| Market prices | 79 | 38 | 58½ |
| Depreciation on banks' holdings | | | |
| Computed | 21 | 52 | 36½ |

Note.--Prices shown are those of the Dow-Jones averages. The estimates of average book value are little better than guesses. If these guesses are at all accurate, the degree of correspondence shown between computed average depreciation and actual depreciation as shown by examination reports, indicates that bank holdings of railroad bonds are fairly evenly distributed between high-grade and "second-grade." The examination reports used in deriving actual average depreciation ratios were those of a sample of State member banks in 5 eastern districts and of national banks in the New York district, covering altogether about 350 banks holding railroad securities.