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VOLUME XLI



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TWENTY YEARS OF FEDERAL RESERVE POLICY

INCLUDING AN EXTENDED DISCUSSION
OF THE MONETARY CRISIS, 1927-1933

BY

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LECTURER ON ECONOMICS, HARVARD UNIVERSITY

VOLUME I

A SURVEY OF FEDERAL RESERVE POLICY



Gokhale Institute of Politics
and Economics, Poona 4.

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To

H. H. B.

**WHO AS MY TUTOR IN HARVARD COLLEGE FIRST
INTERESTED ME IN ECONOMICS**

FOREWORD

BESET by difficult problems, badgered by dualistic supervision and the lack of any potent instruments of control, the reserve system, which has now been in operation for almost twenty years, has nevertheless functioned remarkably well. To criticize from the vantage point of the present is easy, and criticism has been persistent and intensive; but the thought that the Federal Reserve Board and the reserve banks are manned by their present personnel rather than by many of their eminent critics is comforting; and the nation need not be ashamed of their achievements in the past.

It is argued in this book that the Bank rate has not played an important part in the determination of monetary conditions, that the effectiveness of open market operations has been exaggerated, that the use of moral suasion is fraught with danger and arouses dissention within the System, and, finally, that the administration of the eligibility provisions of the Federal Reserve Act has not provided reserve banks with a significant weapon of control. Bank rate has been relegated to an unimportant place, because the enforcement of a penalty rate is not practicable, because the use of the Bank rate as a weapon of restraint has been unpopular with politicians, and because in this country the usefulness of the weapon has been impaired by the peculiar relations of member and reserve banks. Furthermore, the failure of the reserve banks to interest themselves more in the size of reserve balances of member banks, and their inability to control adequately the magnitude of these balances, has impaired the usefulness of open market operations. Moreover, in carrying through their open market policies, they have been too optimistic concerning their capacity to determine the volume of indebtedness of member banks; and the relation of indebtedness and the investment policies of member banks has not always been on approved lines: the fact is that member banks (and more important all banks and non-banking lenders) have not always reduced their credit in the face of a large (and increasing) volume of indebtedness, when large profits might be made by purchasing additional assets. The results of moral suasion, another weapon popular

with reserve authorities and particularly with the politicians and the Federal Reserve Board (the link between the System and Congress), have disappointed most disinterested students of the System. In the past the use of moral suasion has been dictated by the assumed need of discouraging the *speculative* use of bank credit, and has been popular over a large part of the country. But only where money markets are not well organized and the possibility of earning large additional profits is great (by borrowing freely from the reserve banks and lending at higher rates), may the application of moral suasion be justified.

It may seem to many observers that, peculiarly in the United States, the orthodox weapons of control have lost their edge; but in truth the trend has been general since 1914, although the sensitivity to political influences of our system and the organization of our money markets and the reserve system have tended to accentuate this development here. On the other hand, the German Reichsbank, attempting to control a market with a distinctly limited volume of trade bills, and normally restricted in the investments purchasable, has relied with much success on moral suasion: it has rationed credit during crucial periods, determining rations partially by the use to which the funds obtained from the Reichsbank were to be put. Open market operations there have been of secondary importance, and the Bank rate, especially because of the internationalization of large volumes of short-term money, has been an ineffective instrument. In England the Bank rate, as a result of the diminishing importance of the trade bill and the increased capacity of foreign countries to attract foreign funds through the use of the Bank rate, has declined in importance. The issue of Treasury bills, much more important now than trade bills, is discouraged by an increase in Bank rate not nearly so much as is the issue of trade bills: the fact is that foreign lenders may be induced to finance their needs elsewhere when the Bank rate is increased, and when the financing of foreigners through acceptance credits is, relatively speaking, of lesser importance, the effectiveness of an increase in rates is impaired. Great Britain has also been affected adversely by political pressure directed against a courageous rate policy and by the difficulty of introducing economic adjustments that are a necessary part of a successful rate policy. On the other hand, the volume of short-term funds available for movement from one center to another is larger than it was before

the War. A central bank may strengthen its currency by attracting these funds, which may sometimes be an advantage; but more often it may be embarrassed by an influx of foreign money.

In one respect, the absence of tradition and the pressure of public opinion have been advantageous to the United States. Whereas officials of the Bank of England have announced that they are unwilling to assume the responsibility of creating cash beyond the needs indicated by the condition of the money market, the reserve authorities, under pressure by Congress and the threat of extreme legislation, have undertaken open market operations in 1932 on a scale never before attempted by any central banking authority — operations which have been of signal value even if they no more than proved the point that the mere creation of balances (reserves) by central banks cannot of itself bring about business recovery.

A phase of reserve policy requiring much more study than has yet been given to it is that of the relation of policies and conditions in one district to those in other districts. The condition of a reserve bank is to a much greater extent determined by the relations of the banks and the public in its district with other districts than it is determined by the relation of the reserve banks, as a group, to foreign countries. Inter-district transfers of cash, usually exceeding 10 billions monthly, are much larger than are international transfers. Inter-district clearings, government transfers of funds, open market operations, movements of funds between banks, currency movements, and so forth, determine the cash position of reserve banks to a considerably larger extent than do relations with foreign countries. Stringency to be associated with losses of gold abroad is usually felt in New York, for the most part; but not always. Moreover, open market operations, largely consummated in New York, first affect monetary conditions there; but these purchases flood the New York market with cash, while other districts, forced to pay for their share of the purchases, lose cash.

More information is needed on the questions of the inter-relationships of districts; it is necessary to consider the reserve policies of individual reserve banks as well as those of the System. In what manner and to what extent does ease or stringency spread from New York to other districts? To what extent are policies determined by purely local conditions? To what extent does the Kansas City Reserve Bank enforce its policy as against that of the reserve

system? In what manner does the New York District defend itself against bearing an excessive share of the burden of both international and local movements? These and similar questions require answers before we can understand reserve policy. An attempt is made to study problems of this nature here. Attention is also directed to the discussion of inter-regional movements of deposits, which subject receives much space in the second volume.

If this book is written around any central philosophy, it is that central banks, in attempting to impose their policies on the country, encounter very serious obstacles. Their weapons are neither so potent nor so sharp as is commonly assumed; and for any successes, reserve banks owe much to the gullible public, which labors under misapprehensions concerning the power of reserve banks.

A word about the arrangement of this book. In a survey of Federal reserve policy for the years 1914-33 that is presented in the first volume, weapons of control used by the reserve banks are discussed from a theoretical and historical viewpoint. I have tried to use all available sources of information, including the vast collection of Government documents and Mimeographed Letters and Statements of the Federal Reserve Board, neither of which has ever been examined systematically.

Volume II is devoted to an intensive study of the monetary policies of the crucial six year period, 1927-33. This volume, or at least the first half of it, is more difficult reading than is the first volume. I have made an attempt to study the mechanism of open market operations, particularly in relation to inter-regional questions, and I have devoted much attention to the movement of cash or deposits between different parts of the country, as well as the inter-regional balance of payments. The United States is in truth a continent: there are twelve central banks and numerous money markets. A student may neglect some very important aspects of reserve policy if he proceeds on the assumption that the System policy is all that is to be considered, and that relations with foreign countries are the only aspect of the problem of the balance of payments that matters.

In the latter part of Volume II the legislation of 1933, actual and proposed, as well as the extraordinary open market episodes of 1929-32, are studied in some detail and their significance for the problems of central banking indicated. Volume II also includes a

statistical appendix in which numerous problems are discussed. It seemed desirable to collect the charts and to discuss them in an appendix although references are made at appropriate places in the text.

A bibliography, which the writer hopes is fairly complete, is presented at the end of the book. The reader may find this book easier reading if he is acquainted with the well-balanced elementary studies of Kemmerer and Day, the excellent studies of Burgess and Goldenweiser (now somewhat out of date) on the reserve system, and the very able studies of Reed and Hardy on the policies of the last ten years. The latter has appeared just in time to allow me to take some account of it. There are numerous special studies of some aspects of the problems under discussion, of which the outstanding is Riefler's remarkable study of money rates. I might also mention Watkins' able book on bankers' balances. Lest I have frightened the potential reader, I hasten to add that it is my hope and expectation that he will be able to profit from this study even though he is not acquainted with the above-mentioned books.

In this study I take into account developments, in so far as the relevant facts are available, up to the early part of 1933, and I have attempted to consider all literature appearing before November, 1932. It has been necessary to rewrite large parts of this book as a result of legislative changes and developments of 1932 and the early part of 1933, and at the last moment to add a final chapter on the crisis of February — March, 1933.

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OFFICIALS of the Federal Reserve System have been most patient in answering questions and putting material at my disposal, and I must mention in particular that excellent organization, the Division of Research and Analysis of the Federal Reserve Board, and Miss Elsie Rackstraw, the librarian of the Federal Reserve Board. It is my hope that I have repaid them in part by not being unmindful of the practical difficulties that confront a semi-public organization endowed with large powers.

This book has profited from the advice of Professors F. W. Taussig and Joseph Schumpeter, who are always interested in the work done by the young economists of Harvard. My former students, Miss Doris L. Benz and Paul Sweezy, read the entire manuscript with care, as did my colleague, Kenneth P. Kempton.

Miss Virginia Stone, who was my research assistant for several years, and Miss Katherine Hampson, of the Committee on Research in the Social Sciences (formerly in Economics), who prepared the charts and read the proofs, have contributed much to this book, as has A. P. L. Turner, Jr., to whose lot has fallen a very large part of the work required in preparing these volumes. Without his help this book would be far from completed.

The Committee on Research in the Social Sciences, by putting at my disposal the necessary funds, has enabled me to complete this work much sooner than would otherwise have been possible, and also to study some phases of the subject that otherwise would have been closed to me. Professor C. J. Bullock, the Chairman of that Committee, has been particularly helpful, and I appreciate the spirit in which its help has been extended through him.

To the Harvard University Press and in particular to Mr. J. T. Day and his excellent corps of assistants I am extremely grateful for the speed and care with which they put through a very difficult manuscript.

S. E. H.

DUNSTER HOUSE, HARVARD UNIVERSITY

March 23, 1933

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VOLUME I

A SURVEY OF FEDERAL RESERVE POLICY

INTRODUCTION ¹

IN THIS introduction an attempt is made to summarize the more important conclusions reached in the first volume of this study. The problems of Bank rate, open market policy, moral suasion, eligibility, acceptance policy and gold and currency policies are successively discussed.²

The Bank rate is generally considered the most important protective weapon of a central bank. Yet a consideration of reserve policies from 1914 to 1932 offers evidence that the Bank rate has not usually been effective and that it has not occupied the place in reserve tactics often granted it in central banking policy.

One basic reason for the failure to maintain an effective rate policy has been the obstacles encountered in imposing a penalty rate. In what follows, a penalty rate is defined as a rate charged by the reserve (or central) bank in excess of the return earned on the assets offered to it for the purpose of obtaining cash.³ At best a penalty rate would therefore be of limited significance, for it is not at all

¹ The following abbreviations are used:

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| <i>Acceptance Bulletin</i> | <i>Acc. Bull.</i> |
| <i>Annals of the American Academy of Political and Social Science</i> | <i>Annals</i> |
| <i>Annual Report of the Federal Reserve Board</i> | <i>F.R.A.</i> |
| <i>Annual Report of Federal Reserve Bank</i> (New York for example) | <i>N.Y.R.B. Ann.</i> |
| <i>Bankers' Magazine</i> | <i>B.M.</i> |
| <i>Commercial and Financial Chronicle</i> | <i>C.F. Chr.</i> |
| <i>Economist</i> (London) | <i>L.E.</i> |
| <i>Federal Reserve Bulletin</i> | <i>F.R.B.</i> |
| <i>Mimeographed Letters and Statements of the Federal Reserve Board</i> | <i>Mim. L.S.</i> |
| <i>Monthly Review of Federal Reserve Bank</i> (New York for example) | <i>Mo. Rev. of N.Y.R.B.</i> |
| <i>Proceedings of the Meetings of Reserve Bank Officials and the Federal Reserve Board</i> (stenographic transcript) .. | <i>Proceedings</i> |

² References are avoided whenever possible in this Introduction, for they are given later.

³ There has been much disagreement as to what penalty rates are: open market rates, average return on all investments, the return on the least profitable assets, and numerous other rates have been taken as criteria. *F.R.A.*, 1921, p. 690; *Addresses and Statements of W. P. G. Harding*, No. 17 (October, 1921); *Proceedings*, October, 1922, 1, 201-203, 214; U. S. House Banking and Currency Committee, Hearings: *Stabilization of Price Level for Commodities in General* (69: 2), 1926, 1, 709 (hereafter abbreviated: Hearings:

likely that it would be in excess of the average return on a bank's investments or of the return on its more profitable assets. It is, in fact, at once evident that a penalty rate cannot be enforced if by such a rate is meant a rate in excess of the return earned on the most profitable type of bank asset, its highly vital customers' loans. Even in the financial centers there probably has never been a Bank rate in excess of the customer rates; and a penalty Bank rate (in relation to *average* customer rates) in the southern and western reserve banks would be from 1 to 3 per cent higher than the rates of the north-eastern reserve banks. Thus normally a rate of 6-7 per cent would be required in New York and possibly Boston and Philadelphia; and a rate of 7-9 per cent elsewhere. As we shall see later, such lack of uniformity in the Bank rate would raise difficult problems; and a rate for reserve banks in the financial centers above customer rates in the South and West would preclude borrowing by member banks and therefore be useless. Moreover, our difficulties are not at an end, for the differences in rates charged by city and country banks in the same district are, as a rule, even greater than the differences in rates between reserve districts; hence a penalty rate for country borrowers would be, for city borrowers in the same district, prohibitive.¹

But the reader may inquire whether, after all, the fundamental question is not the relative height of the rate charged by the reserve bank and the return on the paper presented to it. Numerous defenders of reserve bank policy have argued to this effect: they have pointed with pride to the fact that the Bank rate is in excess of the market rate on prime acceptances, but have neglected the fact that the Bank rate is of limited significance to those who would dispose of acceptances. The buying rate of the reserve banks is the only significant rate.² What may with more justification be considered potent is the relation of the rates earned on paper to the Bank rate on the identical paper. Keynes has made an effective comment on the question of the relation of the market rate of acceptances to the corresponding reserve bank rate: under normal conditions the large holdings of acceptances by reserve banks, he finds, is evidence that they are

Stabilization); W. R. Burgess, "The Money Market in 1926," *Review of Economic Statistics*, 1927, p. 13; P. M. Warburg, "Politics Menaces the Federal Reserve System," *Annalist*, 1923 (22); U. S. Senate Banking and Currency Committee, Subcommittee, Hearings: *Operation of National and Federal Reserve Banking Systems* (71: 3), 1931, p. 212 (hereafter abbreviated: *Hearings: Operation of Banking Systems*).

¹ W. W. Riefler, *Money Rates and Money Markets in the United States*, p. 95.

² *F.R.A.*, 1922, p. 15.

normally in the market and hence that the buying rate, at which they purchase acceptances, is no penalty rate.¹ Of this more later. The question of a penalty rate on other types of assets presented to the reserve banks may be dismissed without further examination: for the return, with the occasional exception of that on prime commercial paper, always has been above the rate charged by the reserve banks.²

One may raise the question whether the enforcement of a penalty rate on the paper presented to the reserve banks would be an effective, or even an adequate, rate. A member bank may rediscount with the reserve bank at 3 per cent paper that yields 2 per cent, and lend the proceeds to a customer at 5 per cent. But the transaction behind the paper rediscounted offers no guarantee of the uses to which the additional funds obtained are put. Indeed, the member banks may purchase assets that are rediscountable at low or preferential rates in sufficient quantities to assure themselves of adequate rediscounting facilities, and yet invest most of their resources in assets that yield returns higher than the Bank rate on the assets rediscountable. Member banks will probably hold rediscountable paper in amounts adequate to meet potential needs for this business. A penalty rate in relation to some types of rediscountable paper is of limited significance, therefore, since member banks put most of their resources into assets not rediscountable, or into assets rediscountable only at rates lower than the yield. The effect of a penalty rate is then merely to discourage investments in assets subject to it, at least beyond the minimum requirements of an adequate portfolio of liquid assets and a means of obtaining funds from the reserve banks at the lowest cost. The need of accumulating suitable paper for *unexpected* demands may then be met more profitably by purchasing assets that yield high returns even though such paper is rediscountable at higher rates.

The problem of the relative height of rates of the different reserve banks now requires consideration. Early in the history of the system, the rate structure of reserve banks was complicated: frequently

¹ J. M. Keynes, *A Treatise on Money*, II, especially pp. 234-239.

² Even when the New York rate was at its maximum in 1920, its average rate was approximately 1 per cent below the market rate on prime commercial paper. *F.R.B.*, 1920, p. 942. But in 1915-16 the Bank rate was in excess of the rate on prime commercial paper. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 124; cf. W. R. Burgess, *The Reserve Banks and the Money Market*, p. 191 (*op. cit.* will be used hereafter for this work only).

a dozen different rates were current in the same district.¹ Governor Strong was one of the first to point out that, since member banks always borrow at the lowest rate, a single rate for each reserve bank is the only justifiable policy;² and the tendency since the early post-war period has been toward singularity of rate, at least in each district. The theory behind the complicated structure was that banks would be encouraged to hold assets especially desirable from the viewpoint of sound banking if reserve banks established preferential rates for these types of paper;³ but for reasons already indicated, member banks are not guided, to any great degree, by the rate structure of the reserve banks in determining their investment policies.

Preferential rates were established early in the history of the reserve system. In particular a preferential rate was offered on loans secured by Government securities, in order to encourage such investments and to prevent depreciation of Government bonds.⁴ But although the possibility of dumping such paper on the reserve banks may have stimulated investments in Government paper to some extent, at the same time the assurance of a market undoubtedly contributed to an appreciation of the price of Government securities and hence to a diminished interest in them by banks. Thus the preferential rate system probably discouraged member banks from investing in Government securities.

Our interest in penalty rates has been aroused because the question has had a long history in England; but the situation is entirely different in the United States.⁵ Banks borrow in the United States, whereas in England the normal state of affairs is their failure to

¹ *F.R.A.*, 1916, p. 6; *N.Y.R.B.Ann.*, 1917, p. 17; *Mim.L.S.*, 1918, x-1057.

² U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, p. 154; *Proceedings*, October, 1920, II, 218; U. S. Joint Commission of Agricultural Inquiry, Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 691-692 (hereafter abbreviated: Hearings: *Agricultural Inquiry*). It is not exactly accurate to say that banks borrow at the lowest rate, for in the long run they will adjust their investments so as to avoid the payment of a penalty rate, even if it is the lowest rate in force at a reserve bank.

³ *F.R.A.*, 1914, p. 172.

⁴ Cf. "Report of the Committee on War Finance," *American Economic Review, Supplement*, No. 2, March, 1919, p. 110; *Mim.L.S.*, 1920 (13), x-1972, p. 653; U. S. House Report, No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 123. (The history of the coupon rates is given here.)

⁵ Cf. J. M. Keynes, *op. cit.*, II, 228-229, 238; E. A. Goldenweiser, *The Federal Reserve System in Operation*, p. 47; B. H. Beckhart, *Discount Policy of the Federal Reserve System*, pp. 279-281 (hereafter *op. cit.* will be used on this work only); Hearings: *Stabilization* (69: 2), 1926, I, 318.

borrow. The crux in England is the Bank rate in relation to the rate on prime bills acceptable to the Bank. In the United States the member bank considers the situation as a whole: Is it possible to lend additional resources at a rate above that charged by the reserve bank? Is the charge by the reserve bank in excess of the average rate earned on all the bank's assets? Is it unprofitable to borrow if allowance is made for the cost of administering the entire business of banking?¹ Is it expedient to extend the business of the bank at the expense of arousing the hostility of the reserve banks and impairing the privilege of rediscounting in the future? All these questions are cogent to member banks in the United States considering the possibility of borrowing; and for this reason the problem of the enforcement of penalty rates is not so important as in Great Britain.

The theory of the relation of member banks to reserve banks in the United States is not consistent with the theory of penalty rates. Member banks provide the reserve banks with their capital; hence the theory that they are entitled to the privilege of rediscounting, and — what is more important — of borrowing at a rate less than the return to be obtained from the use of the funds. Reserve banks have frequently been confronted with this theory when higher rates were in prospect.² But reserve authorities have nevertheless frequently criticized member banks for increasing their rates merely because the Bank rate had been increased.³ In other words, member banks have been reprimanded for cooperating in an attempt to make the Bank rate effective. More recently, however, the Governor of the Federal Reserve Board approved a legislative proposal for an increase in maximum rates chargeable under state usury laws, although this proposal was made by Senator Glass to enable member banks to charge rates higher than a high Bank rate.

The fact that reserve banks normally have perhaps 2 billions of

¹ E. A. Goldenweiser, *The Federal Reserve System in Operation*, pp. 49-50; "Federal Reserve Board," *American Economic Review, Supplement*, March, 1930, pp. 109-110; Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 783.

² *Proceedings*, October, 1920, I, 49; *ibid.*, 1922, I, 140; *Mim.L.S.*, 1919 (11), X-1718a, pp. 856-857; *C.F.Chr.*, 1920 (110), pp. 813, 1932-1933; *ibid.*, 1929 (129), p. 3443.

³ Letter of W. P. G. Harding to Chairman of Committee on Banking and Currency, U. S. Senate (December, 1920); Richmond Reserve Bank, *Proceedings of Stockholders Meeting*, 1929, pp. 25, 36-37 (hereafter abbreviated: *Proceedings*, for all reserve banks); cf. H. A. Farr, "The Paradox of Money Rates," *American Bankers' Association Journal*, February, 1931, pp. 666, 698, 710. Promises have been exacted that deposit rates would not go up with the Bank rate. *F.R.B.*, 1918, pp. 161, 252-253; *Mim.L.S.*, 1920 (12), X-1784, p. 69.

credit outstanding, a large proportion of which is costless for the banking community, also indicates the unimportance of penalty rates in our System. By costless credit, I mean credit created as a result of purchases of assets by the reserve banks on their own initiative. Thus a purchase of a million of Government securities is costless for the banking community; on the other hand, the banks thus obtain additional cash.

The question of a uniform Bank rate for the twelve reserve banks has frequently been raised in connection with the problem of penalty rates. Since market (and customers') rates are higher in the South and West than in the East, it might be expected that the Bank rate would be higher in the West and South; but the tendency until quite recently has been toward uniformity.¹ A rate for similar types of paper that was uniform for the twelve districts would be hopelessly unsuited to one or another section of the country; and since the trend is to bring the rate down to the level current in New York, establishment of the southern or western rate settles to a point relatively lower, as regards market rates, than in the Northeast. Political pressure also contributes to a uniformity of Bank rates between districts.²

The Federal Reserve Board in particular has attempted to introduce uniformity in the rate structure:³ in announcing the principle of uniformity in 1923 the Board renounced the principle of a penalty rate.⁴ The unfortunate results of the policy introduced in 1927, when the Reserve Board compelled the Chicago Bank to reduce its rate in order to conform to the policy of the eastern reserve banks, have been largely responsible for much diversity in the last few years. This diversity reached its peak in 1931, when at one time the Bank rate was at a minimum of $1\frac{1}{2}$ per cent in one district, and a maximum of $3\frac{1}{2}$ per cent⁵ in another. But in spite of the lip service paid to non-uniformity, reserve banks in general have been unable to withstand the pressure to adjust their rates to those of other reserve

¹ *F.R.A.*, 1915, p. 5; U. S. Senate Banking and Currency Committee, Hearings: *Restriction of Brokers' Loans by Federal Reserve Banks for Speculation* (70: 1), 1928, pp. 21-22 (hereafter abbreviated: Hearings: *Brokers' Loans*); *Proceedings*, 1922, I, 125. Cf. *Mim.L.S.*, 1919 (11), X-1719a, p. 870.

² *C.F.Chr.*, 1922 (114), p. 467; *Mim.L.S.*, 1922, X-3507b, X-3508, pp. 1047-1048 (Comments on Senate Resolution No. 335).

³ U. S. Senate Document No. 310, *Minutes of the Federal Reserve Board Conference*, May 18, 1920 (67: 4), 1923, p. 18 (hereafter abbreviated: U. S. Senate Document No. 310).

banks, in particular to those of the New York Bank.¹ This has been peculiarly true when reserve banks have been dependent upon one another for help; for reserve banks borrowing funds from other banks are under pressure to maintain rates as high as those current at creditor banks.² A low rate in New York and a high rate elsewhere encourages the use of the facilities of the New York Bank directly or indirectly, with the result that reserve banks maintaining high rates find their influence impaired. Correspondent banks in a position to tap the resources of the large eastern reserve banks then acquire the prestige that was once that of the reserve banks.³ Also, when Bank rates rise, reserve banks outside of the large financial centers are unable to resist the general tendency; for their resources may otherwise be exhausted quickly.⁴ Similarly a reserve bank usually finds it necessary to raise its rate to the level of the rate of neighboring reserve banks tho higher rates may be discouraged because the fear is present that business may be lost to other reserve banks.⁵ Over most of the history of the reserve system uniformity has generally prevailed, and therefore, for this reason and others, penalty rates have been out of the question. Uniformity has certainly tended to stimulate the movement of funds to the financial centers where rates are normally lower; but this point can be carried too far, and it is premised on the assumption that the Bank rate determines the market rate.⁶ Let us now consider the history of this question.

In the early years of the Federal Reserve System, much was said concerning the probability of penalty rates; but the needs of government financing put an end to that threat. Once again our faith in penalty rates, or at least higher rates, was renewed with the end of the War; but deflation and depression brought pressure for lower

¹ Pressure in one district is soon reflected by pressure elsewhere. *Proceedings*, October, 1920, 1, 49, 54, 82, 96-97; U. S. Senate Document No. 310 (67: 4), 1923, p. 18; Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 756-764, 777-779.

² *Proceedings*, October, 1920, 11, 350; *C.F.Chr.*, 1920 (111), p. 1137; *ibid.*, 1922 (114), p. 467.

³ *Proceedings*, October, 1922, 1, 123-125; A. Youngman, "The Efficacy of Changes in the Discount Rates of the Federal Reserve Banks," *American Economic Review*, 1921, p. 475.

⁴ *F.R.A.*, 1923, p. 4.

⁵ H. L. Reed, *Federal Reserve Policy, 1921-30*, pp. 135-136, 141.

⁶ Glass and Willis have been especially critical. Cf. U. S. Senate Banking and Currency Committee, Hearings: *Sale of Farm Loan Bonds* (67: 2), 1921, pp. 34-35 (hereafter abbreviated: Hearings: *Sale of Farm Loan Bonds*); Hearings: *Brokers' Loans* (70: 1), 1928, pp. 21-23; Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 172.

rather than higher rates: ¹ the need was assumed to be more reserve credit, not less. Moreover there were practical difficulties in the way of imposing a penalty rate in relation to the rate on Government securities.² To-day there is very little serious consideration given to the possibility of penalty rates. There is some talk of effective rates, but authorities are not clear concerning what they mean by this phrase. They deny that increases in Bank rates induce high market rates in periods of expansion, or that reductions account for low market rates in periods of depression, although they are more willing to assign responsibility for the latter than the former. They have also pointed out that the correlation between Bank and market rate is not high; and when any agreement is evident, it exists merely because the change in Bank rate has been in recognition of existing conditions.³ They do not, however, dispose of the fact that fluctuations in market rates may be explained in large part by anticipated changes in Bank rates.

On the question of the criteria of effective rates there is even more confusion. Sometimes the standard is held to be the control of the volume of assets of member banks,⁴ sometimes it is the cost of credit of member banks, and sometimes it is merely the volume of earning assets of the reserve banks.⁵ Reserve policy would not be effective by any of these so-called criteria. Higher rates have almost always been accompanied by an increase in member-bank credit and lower rates by a reduction of member-bank credit; at least this has been true in periods in which reserve policy might have been an especially important factor: in 1919-21, 1927-32. Of course we cannot say

¹ Political opposition to higher rates rose ominously. See the interesting letter of Secretary of the Treasury Glass to the Board. *Mim.L.S.*, 1919 (11), x-1718a, p. 856. The vacillation of the Board is evident in the following statements: *Mim.L.S.*, 1921 (15), x-3187, p. 923; *Addresses and Statements of W. P. G. Harding*, No. 16 (Letter of September 29, 1921); *ibid.*, No. 17 (October, 1921); *F.R.A.*, 1921, pp. 31-32. *Cf. Proceedings*, October, 1922, pp. 201-203, 214, 225; *ibid.*, 1924, p. 250.

² For this interesting controversy see *Mim.L.S.*, 1920 (113), x-1972, pp. 654-658; *ibid.*, 1921 (14), p. 126; Secretary of the Treasury, *Annual Report on the State of the Finances*, 1920, pp. 127-132 (hereafter abbreviated: *Annual Report*); *C.F.Chr.*, 1920 (110), p. 1934.

³ *Cf. Mim.L.S.*, 1919 (11), x-1717, p. 855; *ibid.*, 1920 (12), x-1941, p. 480; *Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 20, 383, 507, 720-721. More recently they have been more willing to take some responsibility for changes in market rates. W. R. Burgess in *Recent Economic Changes*, II, 704.

⁴ *Proceedings*, October, 1922, I, 110, 173; *C.F.Chr.*, 1919 (109), pp. 1749-1750.

⁵ The New York Bank apparently considers numerous criteria. *Hearings: Operation of Banking Systems* (71: 3), 1931, p. 768; *Hearings: Stabilization* (69: 2), 1926, I, 329.

whether without the change in rates the increase and decrease in credit would not have been of larger proportions. As for the cost of credit, it is difficult to distinguish cause and effect, and the relation of Bank rate to market rate is not striking. The possibility of controlling the money market through the volume of earning assets of reserve banks brings us to a discussion of the much discussed weapon of open market operations.

Open Market Operations. Disappointment with the results of rate policy explains in part the large measure of attention given to that of the open market.¹ The emphasis has been shifted from the control of the cost of borrowing at the reserve banks to the *fact* of borrowing. Many times has the theory been expounded by reserve officials, *e. g.* Strong, Burgess, Riefler and, in their public announcements, by other reserve authorities. Through the purchase and sale of securities, it is held, reserve banks can control the volume of member-bank indebtedness, and fluctuations in the volume of indebtedness determine market rates; for banks are disposed to withdraw accommodation when their debts are high and to offer credit freely when their debts are low. No theory of control has received so much support both in official and unofficial circles; and the exaggerated faith in this weapon accounted in no small part for the failure of reserve policy in 1927-32. In truth open market operations have proved to be a weapon of second rate effectiveness; and the high hopes held out for them are to be explained by a failure to understand their significance and functioning.²

One serious difficulty is that reserve banks cannot always control the volume of member-bank indebtedness. Governor Strong in particular has been responsible for the wide acceptance of the theory of a reciprocal relation between securities held by reserve banks and their rediscounts. Elsewhere I have dealt with Governor Strong's

¹ The best official discussion of the objectives of open market operations is to be found in, Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 799-817; *cf.* W. R. Burgess, *op. cit.*, pp. 220-223; W. W. Riefler, *op. cit.*, pp. 25-28; *Proceedings*, October, 1922, 1, pp. 77, 356-357; *ibid.*, 11, 412; *ibid.*, November, 1924, p. 223; *ibid.*, November, 1925, pp. 208-209; *Mim. L.S.*, 1923 (18), X-3667, p. 212; *ibid.*, 1928 (28), X-6055, pp. 475-476; *F.R.B.*, 1924, p. 3; *F.R.A.*, 1923, p. 11.

² For official expressions of disappointment with the results of open market operations, see Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 156; *C.F.Chr.*, 1928 (126), p. 2908; *Mim. L.S.*, 1928 (28), X-6055, p. 474; A. C. Miller, "Will Open Market Operations be Discontinued?" *American Bankers' Association Journal*, July, 1928; Hearings: *Stabilization* (70: 1), 1928, p. 399.

figures, and I have argued that the results obtained are determined in part by his choice of periods.¹ Governor Strong was aware, however, that member banks or the money market might obtain additional cash, when reserve banks sold securities, by selling acceptances to them instead of rediscounting.² This is one important modification of the theory; the restraining effect of an increase of rediscounts is thus averted. But more important is the fact that gold movements, currency movements, economies in reserves and fluctuations in the requirements for reserves may play a very important part in the determination of the volume of rediscounts. In the history of the reserve system gold and currency movements have been especially important.³ The reserve authorities may argue that purchases of securities stimulated business in 1922, 1924 or even in 1930; but it may with at least equal authority be argued that an inflow of gold, or (in 1930) an influx of notes, was the occasion for a reduction in rediscounts. The reserve authorities may point with pride to the sales of securities and the increase in rediscounts in 1927-28; but who will deny that the loss of gold played at least an equally important part in bringing about the large increase in rediscounts? On the other hand, open market operations in 1932 have been of little avail because (among other reasons) other factors that determine the volume of rediscounts, *e. g.* gold and currency movements, have been more effective than unprecedented purchases of securities in determining the volume of rediscounts.

So long as open market policy has been considered a powerful tool in the United States, reserve authorities have made one fatal mistake, namely their excessive emphasis on reserve credit outstanding. In the early post-war period it was as a result of an unjustified assumption that they could control the volume of earning assets that they began to purchase securities; and when, much to their consternation, they discovered that banks were inclined to use the additional cash pumped on the market to repay the reserve banks, they devised the theory of an inverse relation between securities and rediscounts. But they continued to stress earning assets, or reserve

¹ Strong's figures are presented in Hearings: *Stabilization* (69: 2), 1926, I, 331-332. They are analyzed on pp. 175-177.

² *Ibid.*; Cf. W. R. Burgess, *op. cit.*, p. 212; *F.R.B.*, 1925, p. 527.

³ See the interesting charts in Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 125, 127. Reserve authorities lately have been willing to associate fluctuations in *reserve credit* with movements of gold and currency. *F.R.B.*, 1929, pp. 242, 263.

credit outstanding.¹ This is a grievous error: central bankers ought to concentrate their attention on the cash balances of member banks; it alone is the variable to be controlled if they have any serious intention of exercising control over the money market. Yet reserve authorities concentrate their attention on reserve credit outstanding and continue to emphasize the phantom variables that constitute the supply and demand for reserve credit. The disastrous growth of member-bank balances (reserves) from 1922 to 1927 would certainly have attracted more attention if their importance had not been obscured by this injudicious attention to reserve credit outstanding. True enough, reserve banks could not have prevented a growth in balances, for their assets were not large enough to offset the inward flow of gold; but more valiant efforts were possible, and there was apparent a tone of self-righteousness when the reserve authorities referred to an increase in member-bank credit concomitant with a reduction in reserve credit outstanding.² It was as though the reserve authorities were defending themselves thus: surely we cannot be blamed if member-bank credit is expanded when our credit is contracted. Perhaps we can condone the authorities for not proclaiming openly their incapacity to deal with the situation,³ but it is not so easy to excuse them for failing to consider these other variables in evaluating their open market policies. For the same reason that they could not control the balances and credit of member banks, their open market operations were bound to be of secondary importance. This fact is irreconcilable with Keynes' statement concerning the brilliant success of open market operations in the United States.

¹ Cf. especially *ibid.*, 1923, p. 1252; *ibid.*, 1925, pp. 3, 149; *ibid.*, 1927, p. 628; *Mim. L.S.*, 1930, X-6737, pp. 297, 310.

² Even when it was clear that purchases of assets by reserve banks contributed to an increase in balances of member banks reserve banks harped upon gold movements or some other variable rather than their own activities. *F.R.B.*, 1924, p. 904; *ibid.*, 1927, p. 799.

³ Keynes is not justified in referring to the policies of the reserve banks as follows: "The successful management of the dollar by the Federal Reserve Board from 1923 to 1928 was a triumph — mitigated, however, by the events of 1929-30 — for the view that currency management is feasible, in conditions which are virtually independent of movements of gold." *A Treatise on Money*, II, 258-259. Reserve authorities made virtually no efforts to offset the large inflow of gold from 1922 to 1927. In five years the monetary gold stock increased by 782 millions, the monetary silver stock by 180 millions, and member bank balances by 477 millions. *F.R.B.*, 1929, pp. 242, 633. They have been too willing to adopt the dangerous theory that all gold and currency movements (outward) are to be financed by reserve credit; but they have not been equally solicitous to offset inward movements. *F.R.A.*, 1925, p. 1; *F.R.B.*, 1927, p. 799; *Mim. L.S.*, 1930 (32), X-6618, p. 595.

Supporters of the open market-indebtedness doctrine explain fluctuations in market rates in terms of fluctuations in the volume of member-bank indebtedness. But it may be asserted with at least equal justification that fluctuations in balances of member banks are the vital factor. Thus the increase in balances of member banks in 1922, 1924 and 1927, and the tendency of balances to be reduced in 1928-29 may be more significant than are the reduction of debts in crucial periods in 1922, 1924 and 1927, and the increase in 1928-29.¹ One is inclined to be skeptical of the remarkably high correlation of indebtedness and market rates discovered by Riefler in his able study of this subject. Let us, at all events, assume that 500 millions of indebtedness is the normal situation. An increase in indebtedness from 500 to 600 millions, or from 100 to 200 millions, is likely to exert slight effect as compared with that exerted by an increase from 900 to 1,000 millions, for in the second instance member banks are likely to apply strong pressure on open markets and even on customers. The distribution of the reduction of indebtedness is also of fundamental importance. A reduction of 200 millions evenly distributed over the twelve reserve banks may be of trivial consequence as compared to the effect following concentration of the reduction in a few financial centers. Perhaps the evenness of the distribution of the reduction of debts from October, 1929 to March, 1930 explains in part the disappointing results of reserve policy during these months.

On the other hand it is not easy to distinguish the effects of an increase in balances from those of a reduction in rediscounts. Before rediscounts are reduced to a low level, balances begin to accumulate in financial centers. Is an easing of the monetary situation, one may ask, to be explained by the accumulation of surplus balances seeking an outlet, or by the further reduction of rediscounts? Reserve authorities were undoubtedly surprised by the effects of their very large purchases of securities in the first six months of 1932. Purchases should naturally be followed, first by a reduction of rediscounts, later by an increase in balances. Yet from March through May, when the reserve banks purchased almost 800 millions of securities, developments were not along expected lines. True, in

¹ On rare occasions reserve authorities commented on the increase in balances only to point out that they could not be held responsible; but in a heroic effort to obtain control in 1928-29 reserve officials made a complete turn-about: they were not only responsible for the growth of balances, but in the last analysis they were created as a result of the activities of reserve banks. This was a momentary lapse, however. *F.R.B.*, 1924, p. 904; *ibid.*, 1929, pp. 176, 359.

March a reduction of rediscounts occurred, but it was sharpest outside of New York. We have been led to believe that the reduction occurs first in New York; yet the metropolitan banks seemed disposed to increase their reserve balances rather than reduce rediscounts. In April the additional cash created was largely hoarded by the New York banks, increasing their balances by the unbelievably large sum of 200 millions, although their rediscounts were in excess of 100 millions; and outside banks that acquired large sums of cash as a result of these operations and other factors invested them in deposits with large city banks. The latter were even too frightened to repay the reserve banks. In May the purchases were wasted so far as the stimulation of business was concerned, for withdrawals of gold and notes absorbed the additional credit.

In the last year or two (1931-32), reserve banks have been unable to neglect altogether the problem of member banks' balances: their decline has been too drastic to escape attention. It is at once apparent that any increase in member-bank credit is conditioned on an increase in balances; hence some notice has been taken of balances, and that is where attention should be directed. An increase in the holdings of securities by reserve banks that reduced rediscounts from 500 millions to a vanishing point would not be nearly so effective as purchases of 500 millions that would increase balances by that amount.

The theory of open market operations is that a reduction of debts will leave banks more willing to increase their assets, and in the past the emphasis has been put on open market assets of member banks. Experiences of 1927-32 are evidence that too much faith has been put in this doctrine. Member banks continued to purchase assets and increase their balances in 1928, even though open market operations and losses of gold had raised their indebtedness to a level much in excess of that deemed necessary to restrain them.¹ When the return on open market operations is tempting, banks will not only refuse to contract for a reduction of their indebtedness, but they will actually increase their debts in order to accumulate larger balances and purchase additional assets in the open market. Nor has the pumping of additional cash on the market been characterized by any excessive zeal to purchase assets that were yielding very low returns or those that might not be liquidated easily. Sound and liquid assets have been so limited in volume that the purchases by banks result-

¹ *Ibid.*, 1928, pp. 445, 448.

ing from the open market policy and the quest for liquidity have at one time brought the rate for Treasury certificates down to $\frac{8}{100}$ of 1 per cent. And the Treasury, in increasing its short term indebtedness by 2 billion dollars over a relatively short period, was not loth to take advantage of that situation.

*Moral Suasion.*¹ Fear of the consequences of an aggressive rate policy and inexperience with open market operations led authorities to apply direct methods as early as 1917-18, and the impossibility of enforcing a penalty rate led to renewed interest in this tool during the post-deflation period. Instead of controlling the demand for credit by adjusting the price, reserve authorities may control the supply by refusing or granting applications for rediscount according to whether or not they approve the lending policies of member banks. I have pointed out elsewhere² that reserve bank authorities were subjected to severe criticisms, in 1918-20, as a result of their attempts to control the lending policies of member banks: democracies do not allow without protest the exercise of such large powers by government-created organizations. For many years the application of moral suasion was premised on the theory that member banks are not allowed to use reserve credit for speculative and other unsound purposes; and of course the control of the use of reserve credit required a capacity to earmark dollars obtained from reserve banks, in order to discover the use to which reserve credit was put. Reserve authorities have frequently been forced to admit, however, that it was not practicable to distinguish or earmark dollars obtained from reserve banks.³

When the reserve banks once more introduced a program of moral suasion in 1929, they altered their position to some extent: they were now responsible for the use to which *all* member-bank credit was put (for in the last analysis they provide the necessary resources) and were not so much concerned with the problem merely of identifying reserve dollars. It is not easy to determine whether the program was successful in 1929: the increased use of bank credit for speculative uses was certainly discouraged; but on the other hand

¹ The reader is referred to an article by the author for a discussion of the difficulty of identifying dollars obtained from reserve banks and of controlling the use to which these dollars are put. "The Federal Reserve Act and Federal Reserve Policies," *Quarterly Journal of Economics*, 1931 (45), pp. 383-386, 402-406.

² Consult earlier article quoted in above note, and also see Chapters XII and XIII of this study.

³ *F.R.A.*, 1925, p. 16.

the use of non-banking funds for speculative purposes was, by the withdrawal of banking funds, as certainly fostered. When in July the policy was renounced, the reason advanced was that it had been so successful as to frighten the large New York banks into refusing to borrow.

Even more recently the Federal Reserve Board has once more modified its position. In commenting on a legislative proposal made by Senator Glass in the Banking Act of 1932, Governor Meyer made clear that the Board still favored the use of moral suasion: reserve authorities were to keep informed of the investment policies of member banks and might refuse accommodation if unsound credit conditions were being induced. The Board then once more admitted that it could not identify the use of reserve credit; but it could inform itself of the use of *all* bank credit and if policies were disapproved the rediscounting privilege would be withheld. The New York Bank, however, continues to oppose the use of moral suasion. The statement of the Board is in fact incompatible with the past practice of reserve authorities, who have certainly done their utmost to impress member banks with their right to rediscount; and it was particularly inept in 1932, at a time when reserve authorities were proclaiming that any bank with eligible, or even sound, assets could automatically convert them into cash. On the other hand the Board must, it doubtless felt, pay some attention to the political sentiments of the country and in particular to the principles so dear to Senator Glass and his supporters. Moral suasion is likely to play a part in reserve policy of the future, not because it is a policy easy of administration or free from grave dangers or abuses, but because it is more popular than the use of a vigorous rate policy, and because it is directed against the attraction of funds to New York for speculative purposes.

The application of moral suasion, it is true, requires rather careful investigations into the policies of member banks. In the past, examinations by reserve banks have been unimportant, and they have contributed little to a better supervision of banking, an objective announced in the preamble to the Federal Reserve Act.¹ Whatever investigations have been made have been primarily for the object of discovering whether loans to a particular bank were safe.² The

¹ *Mim.L.S.*, 1927 (26), x-4821, pp. 157-162.

² Hearings: *Brokers' Loans* (70: 1), 1928, pp. 59, 68; cf. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 722-723, however. The Senate Committee of 1931 con-

Federal Reserve Act allows reserve banks to make what are known as line of credit investigations, and perhaps the recent removal of limitations on the exercise of this power may encourage reserve banks to inform themselves more specifically of member banks' policies.¹

The question of the advisability of applying moral suasion is largely a question of the motives that lead banks to borrow. It has consistently been maintained by reserve officials, and in particular those of the New York Bank, that member banks borrow because they lose deposits (cash) and for that reason reserve banks have no discretion: they must extend accommodation or the member bank will find itself in trouble. In the large financial centers, member banks undoubtedly are at a loss to anticipate all possible withdrawals of cash, and when unexpected withdrawals find them unprepared, they require assistance until they can correct their position.² This situation, however, may be relied upon too strongly, with the result that member banks are relieved of any responsibility for the withdrawals of deposits or cash, which after all are to be associated with their policies. If member banks in New York, for example, are indebted to the New York Reserve Bank for 500 millions of bills rediscounted, the banks are probably responsible in part for the high level of indebtedness, and the possibility that rediscounts may not be available will undoubtedly contribute to a more conservative lending policy.³ Yet the situation is peculiar in the large financial centers, where the normal situation is that first one bank, then another, is indebted for a few days. Reserve policy should allow for the inability of the member banks in the large city, subject to multiplex incomings and outgoings, always to balance their books. But when the banks find themselves in debt for long periods of time and

cludes that the safety of their funds is the main interest of the reserve banks. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 1060.

¹ *Mim.L.S.*, 1923 (18), x-3688, pp. 259-260; *ibid.*, x-3728, p. 357; *ibid.*, 1930 (32), x-6490; Public-No. 434-71st Congress [S. 485]; House Report No. 1656 (71: 2), May, 1930. Some efforts have been made in recent years to increase the value of examinations by the Board. *Mim.L.S.*, 1928 (29), x-6143a, pp. 280, 284-285; *ibid.*, x-6173, pp. 332-334; *ibid.*, 1930, x-6665, pp. 87-88.

² See the interesting studies of the Boston Reserve Bank on this subject: rediscounts fluctuate with deposits. Reserve banks in agricultural districts have also commented on the close relation of these two variables. *Mo. Rev. of Boston R.B.*, May, 1923; December, 1923; February, 1926; *Mo. Rev. of Minneapolis R.B.*, November, 1920; January, 1927; April, 1928; May, 1929; March, 1930.

³ The Board seemed dimly aware of this fact. *F.R.A.*, 1921, p. 5; but compare Hearings: *Brokers' Loans* (70: 1), 1928, pp. 58, 67.

when the number of banks in debt is abnormally large, there is something wrong fundamentally: the difficulty is no longer temporary disequilibrium of the balance of payments.¹ The New York Bank is willing to discuss matters with member banks out of line; but when all banks are borrowing excessively, the situation is to be met not by refusals but by a higher rate.

Loss of deposits, by the way, is an ambiguous phrase. What is generally meant is a loss of cash. A *reduction* of deposits accompanied by a corresponding *reduction* of earning assets does not involve a loss of cash, but in truth is equivalent to a gain in cash, for reserve requirements are correspondingly reduced. A similar assertion may be made for a loss of deposits accounted for by an increase in banking capital; and this situation was an important factor in 1928-29. Open market operations are effective because the deposits of banks and — more important — their cash are reduced when reserve banks sell securities. A loss of deposits, viewed apart from the accompanying loss of cash but with a corresponding reduction in reserve requirements noted, may indeed be considered a relief measure; and in this sense open market operations provide banks with more cash. A similar analysis applies to losses of deposits to be associated with withdrawals of gold and currency. To sum up: losses of deposits require help from the reserve bank when they also involve losses of cash, but the reduction of deposits may be equivalent to a gain in cash.

Eligibility. The task of a central bank in controlling the demand for its credit may be facilitated by a narrow definition of the type of paper that is acceptable. When in the 19th century the Bank of England was discounting what it termed good bills, a type of eligible paper available only in limited quantities, its task was easy indeed, especially in view of the fact that its rate was normally considerably above the market rate. But reserve authorities have not been equally fortunate: Congressional definitions of eligible paper, administrative rulings by the Board, interpretations of the law, and rulings by reserve banks have aided reserve banks little in controlling the demands for their resources.

¹ The situation in 1920-21 was precarious in this sense. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 52-53; U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish the Office of Comptroller of the Currency* (67: 1), 1921, pp. 5, 11.

One of the difficulties is that there is too much eligible paper: the supply is considerably beyond any conceivable volume of rediscounts, and in general its distribution between districts and banks is not uneven.¹ The Federal Reserve Act did not limit adequately the scope of eligible paper;² and later modifications of the law — especially the early amendments allowing banks to borrow on their promissory notes, the liberalizations in the post-deflation period in order to placate popular opinion, and successive liberalizations in interpretations, specifically in 1915-18, 1921-23, and 1927-28 — have all fallen short of that objective. Modifications in the law and administrative policy have reflected the assumed need of expansion or contraction; this is peculiarly noticeable in the history of acceptances. They find a final resting place with the reserve banks much more often than do other assets; and therefore reserve banks have rapidly modified their rulings in accordance with the requirements of the economic situation.

But the difficulty has not been merely successive legislative and administrative changes: as a result of reserve bank practice, the theory itself of eligibility has been thoroughly overhauled. More and more the tendency has been to disregard arbitrary rules of eligibility and put the emphasis on the security behind the paper. Congress had not anticipated this development in 1913 and in fact had specifically ruled out security as a guide except for acceptances. The purpose of eligibility regulations was to encourage banks to invest in commercial paper of the proper type. That developments have been different from those anticipated is to be explained in part by the unpopularity of dogmatic rules of eligibility, both with reserve and commercial banks. The popularity of borrowing on notes secured by "Governments" or eligible paper evinced the unpopularity of eligibility rules. Reserve banks relied more and more on the endorsement of the member bank; and they were pleased with this development because the acceptance of the note of the member bank gave them a lien on all its assets. The practice of demanding additional collateral became popular because reserve banks thereby protected themselves when the endorsement of the member bank was not con-

¹ *F.R.B.*, 1930, pp. 401-402; *ibid.*, 1932, p. 142; U. S. House Banking and Currency Committee, Hearings: *To Investigate Branch, Chain and Group Banking* (71: 2), 1930, pp. 499-500 (hereafter abbreviated: Hearings: *Branch Banking*). Cf. *C.F.Chr.*, 1930 (130), pp. 3482-3483, however.

² The Board comments on the failure of eligibility laws to provide a weapon of control. *F.R.A.*, 1925, pp. 17-18.

sidered an adequate protection; and reserve banks even demanded additional collateral when they were doubtful of the eligibility of paper.

There has been some criticism of this practice of demanding excess collateral, but it is supported by the precedent of many years and can easily be defended on the grounds, first, that the endorsement of the member bank, provided in the Act, should have a genuine value, and, second, that the rights of the depositors with reserve banks — the banks of the country — deserve protection as valid as that offered individual depositors.

Thus the reserve banks have been faced with the problem of rediscounting a volume of paper considerably greater than an amount that could be rediscounted in view of their resources and the requirements of sound monetary conditions. They have met this problem by inventing a distinction between eligibility and acceptability; and they have found legal support for the invention in a provision in Section 4 requiring the use of their resources without discrimination as between banks. It has been easier to refuse rediscounts on the grounds of acceptability: bankers understand the use of discretion, and in practice the responsibility devolves on the reserve banks instead of on a public board subject to political pressure. Paper refused on grounds of inadequate security is paper not acceptable or good. An examination of this question offers convincing proof of the confusion resulting: what were intended as tests of eligibility have frequently been held to be tests merely of acceptability or goodness.

Legislation in 1932 has paralleled the trend since 1914. Member banks are assured that they can discount not only eligible paper but paper that is not eligible, though it represents sound assets. The reserve banks (and the Reconstruction Finance Corporation) thus announce that they are to lend on the same principles as any other bank: is the loan safe? is the security adequate? Arbitrary rules of eligibility ought not to be the criteria by which one bank is offered help and another is refused; criteria of proper banking current in 1913 can no longer be applied to-day.¹ Security, not eligibility, has become the universal measuring rod. But if the requirements of jus-

¹ Senator Glass and others who have fought valiantly but futilely against the renunciation of the principles of 1913 ought to study the following statement by Robertson: "On the face of it the question of the proper character of banking assets is not one which can be settled *in vacuo* for all time, independently of the state of industry and of the phase that has been in what used to be called the trade cycle." A. C. Pigou and D. H. Robertson, *Economic Essays and Addresses*, p. 120.

tice and banking practice demand a renunciation of eligibility rules, the problem of controlling the banking system in the hope of assuring sound credit conditions is made so much the more difficult.

Acceptance Policy. It has generally been held that the interest of reserve banks in nurturing an acceptance market has been an obstacle to the enforcement of an effective policy, but this doctrine has been stressed beyond reason. Even as early as 1922 the leaders of the reserve system recognized that the buying rate of the reserve banks for acceptances was to be determined in the light of general conditions and that the creation of credit through the purchase of acceptances was merely an alternative method of creating reserve credit. Undoubtedly reserve banks have sometimes sacrificed their policies to the exigencies of the acceptance market; but more often than not acceptance policy echoed the assumed requirements of the entire situation. Hence the sharp criticisms of the policies in 1928 and 1929, when large purchases of acceptances were undertaken; yet these purchases only indicated a decision to ease the monetary situation in order to finance the requirements of autumn trade. The error was the decision to ease the monetary situation; the mechanism of easement was of secondary importance. It is to be noted that reserve banks may issue additional credit by purchasing securities or acceptances or rediscounting for member banks. The first method is the least costly and the most stimulating; the third, the most costly and the most restraining; the second method is dear but not so dear as rediscounts, and not so stimulating as purchases of securities: for thereby the market gives up its most liquid asset and its most certain (and usually its cheapest) access to the reserve banks.

Again, the appearance of a conflict between acceptance policy and reserve policy in general arises in part because of difficulties of administration. At one time, reserve banks exercised a very wide discretion in the determination of the buying rate, but of late their powers have been reduced. Nevertheless, a buying rate must be set, and in determining the rate authorities are confronted with the problem of guessing the volume of bills that will be offered at a given rate. Unquestionably excessive purchases by reserve banks have sometimes been attributable to the failure to gauge accurately the volume of bills that would be offered to reserve banks at designated rates. Explicable thus, in part at least, are excessive purchases in 1923, 1928 and particularly in 1929.

On the other hand a conflict of policy is not at all impossible for other reasons. In 1932 the New York Bank had much more control over the acceptance market than it had over open market policy; this is true even though it could not determine the buying rate within the wide limits possible in earlier years, and although acceptance policy be considered in the formulation of open market policy. For by 1932 the New York Bank had been shorn of the leadership over open market operations that it exercised in the years 1922-28. Control of the acceptance market results from the fact that most purchases are made in the New York market and the New York Bank initiates changes in rates. Conflict is possible to-day because of the divided leadership resulting from revision of the open market procedure.

Conflicts on this question have also arisen between reserve banks. In times of stress reserve banks outside of New York have hesitated to participate in purchases of acceptances in the New York market. The reason is evident: they prefer to keep their resources in their own district rather than transfer cash to New York in payment for acceptances. It is a peculiarity of all open market purchases — securities and acceptances — that the New York market is stimulated as more cash is pumped in and other districts suffer as they are deprived of cash as a result of the need of paying for their allotments; similarly, sales of assets create restraint in New York and additional cash and stimulation elsewhere. I neglect the ulterior effects. But this aspect of open market policy ought to receive some consideration.

Reserve banks, moreover, have been too disposed to deny their control of the market rate on acceptances. Almost throughout the history of the System they have been the most important market for acceptances; and even foreign correspondents (central banks), who would not purchase without the endorsement of the reserve banks, have been a very important element in this business. In truth their holdings may be termed additional support given by the reserve banks, which are always prepared to step in when outside central banks desert the market — as was abundantly demonstrated in 1931. When one purchaser normally holds more than one half of the available supplies and is universally known to be ready to buy additional supplies if the occasion arises, that purchaser controls the rate. Should the reserve bank desert the market, the only check on the resulting increase in rates would arise from the influx of other

money on the demand side and a discouragement of the use of American acceptance credit on the supply side. But the effects on the money market of any large withdrawals of cash in this manner, *i. e.* through the purchase of acceptances by the money market, would rapidly abolish any correctives from the demand side, although the supply of short-term money invested in other markets is a relevant consideration. On the other hand, Keynes and others overemphasize the dependence of the market on the reserve banks: the market has been deserted by the reserve banks by raising the buying rate above the market rate. Thus, member banks have sometimes sought an escape from rediscounting by selling bills, or forcing others to sell bills even when the process was more expensive than the rediscount of bills: in this way they avert the pressure exercised when rediscounts are requested. Reserve banks, then, are disposed to inflict a severe penalty on such sales.

Gold, Reserves, Notes. In recent years central banking policy has been directed more and more with the aim of minimizing disturbances to be associated with the movements of gold and notes; and it is becoming increasingly evident that reserve requirements ought to be formulated in such a manner as to facilitate the control of the money market by the central banks. The public also demands of the central banks that they should offset gold and currency movements; but the public is more anxious that the central banks offset losses of gold and withdrawals of notes than imports of gold or influxes of notes. For evidence on this point we need only recall the criticism bestowed upon the Bank of England for offsetting an inflow of gold in 1927-28.¹ Reserve authorities have in particular stressed the responsibility for averting disturbances caused by movements of gold and currency.

Reserve banks have been more inclined to offset exports than imports of gold. Even when the loss of gold might have facilitated the reserve policy, as in the closing months of 1927, reserve authorities have frequently erred by purchasing securities in order to provide the money market with cash necessary to obtain the gold. The theory that currency and gold withdrawals are to be financed by the reserve banks has been run to extreme limits: opportunities for attaining control of the monetary situation are thus sometimes dissipated. It may also be observed at this point that the problem is

¹ Committee on Finance and Industry, *Evidence*, I, 4213; II, 7597.

somewhat different in the United States than elsewhere; here it is merely a question whether the money market is to obtain the additional cash in a costless manner (through purchases of securities), or in a costly manner (rediscount), or in a moderately costly manner (through purchases of acceptances). In England, on the contrary, the money market may conceivably lose cash if the Bank of England does not fully offset losses of gold; and it did so lose in the midst of the crisis of 1931.

Reserve banks have not, however, always offset losses of gold by purchases of securities. Of this failure the losses of the autumn of 1931 are the most notable instance. It has, too, been the exception for reserve banks to offset inflows of gold. Thus if we take the entire period 1922-27, when gold imports climbed an unprecedented scale, we note that reserve banks increased their holdings of open market assets, and expansion of member bank credit accordingly proceeded at an unprecedented rate. European critics of reserve policies during these years neglect to consider the inflationary effects of this failure to offset imports of gold, with concomitant large purchases of assets.¹ Moreover the very great withdrawals of gold by European banks in 1931-32, resulting from the liquidation of assets held here, are some justification of the refusal of American authorities to stimulate further use of available gold supplies.

Large imports of gold have been so persistent a source of worry for reserve banks that they have sometimes attempted to obscure the real monetary situation. One method of giving the impression of smaller reserves than are actually available is to put gold into circulation. In 1922 the Treasury took the lead in a movement to do this and was later seconded by the New York Bank; but the Treasury seemed to be primarily interested in restoring a genuine gold standard which, in their eyes, was one under which gold would be freely paid out even when unsolicited. Now payment of gold for circulating purposes reduces the reserves of the reserve banks and hence reduces the pressure for inflation from some quarters. It may be noted, however, that when large imports of gold ceased, the reserve banks discontinued the policy in 1925-26, and they did not use this weapon as a support for a policy of dear money in 1927-28. In truth

¹ For official recognition of the obstacles to be faced as a result of large imports see *F.R.B.*, 1923, pp. 5, 409; *F.R.A.*, 1927, p. 15; E. A. Goldenweiser, "Effects of Further Gold Imports on Our Banking Situation," *American Economic Review*, 1923, pp. 88-91; B. Strong, *Interpretations of Federal Reserve Policy* (edited by W. R. Burgess), p. 259; Hearings: *Stabilization* (69: 2), 1926, 1, 497-499; *Mo. Rev. of N.Y.R.B.*, 1928, p. 51.

they made a policy of restraint more difficult by actually withdrawing a few hundred millions from circulation. In 1930 the policy of putting gold into circulation was renewed, only to be reversed in the midst of the crisis of 1931. It was soon necessary again to strengthen the position of the reserve banks by withdrawing gold from circulation, but the rate at which gold was taken out of circulation probably disappointed the authorities, for in one panicky month of 1931 vast supplies of gold were taken by the public.

Reserve authorities have also used the concept of free gold, *i. e.* gold in excess of the amount required to satisfy all reserve *and collateral* requirements, as a means of obscuring the real situation. Thus in 1928-29 the public was warned that the surplus gold available was much smaller than it seemed to be, for rediscounts were at an abnormally high level; and when rediscounts were once more at a normal level, the collateral available against notes would be reduced, for additional supplies of gold would be necessary to satisfy collateral requirements. This is a dangerous weapon, for when gold is lost because of unsatisfactory conditions at home that should be corrected, the public may retort that restrictive measures are inadvisable since the amount of free gold is not being reduced, as reserve banks acquire additional assets eligible as collateral. It may be observed that a peculiar situation thus arises in which a central bank may improve its reserve position by increasing its credit.

Reserve banks may also distribute their reserves between the deposits and notes accounts in such a manner as to facilitate the enforcement of their policies. Strangely enough, Congress neglected to provide for the distribution of reserves in excess of minimum requirements, beyond indicating that reserves in the possession of the Federal Reserve Agent were to be held exclusively against notes; certainly the Act makes provision only for a composite reserve against both notes and deposits, and any division beyond the provision to meet minimum requirements is extra-legal. Still, reserve authorities have been inclined to divide their reserves privately, in such a manner as to leave the entire surplus in the notes account, thus attempting to give an impression of sensitivity reminiscent of the British system. Indeed the reserve banks have gone further: they have, in periods of stress, not only assured themselves of reserves against notes adequate to meet minimum requirements but have allowed the reserves against deposits to decline below the legal minimum. The explanation is that the necessity of increasing the

Bank rate, as required under the Act when reserves against notes are deficient, is thus averted.

Reserve banks have not, however, in spite of numerous discussions, made extensive use of this weapon of allocation of reserves. They have feared the charge of manipulation; and reserve requirements ought to be simple, easily understood. The practice of aligning maximum reserves against notes and minimum reserves against deposits, thus guarding against inflation and providing reserve banks with a sensitive barometer, has appealed to authorities.

It is also recognized that the reserve requirements of member banks may be formulated or administered in such a manner as to contribute to sound monetary conditions: reserves may be increased (which is equivalent to an open market operation on the contraction side) when expansion develops at an unhealthy rate, and reduced when stimulation is desirable. This is the fundamental idea behind the ingenious recommendation of the Reserve Committee on Member Bank Reserves, that reserves be based both on deposits and on bank debits. Congress might well give more consideration to this report than as yet it has shown any inclination to do. But here it may be remarked that in 1931 the authors of this report were a little too much afraid of a recurrence of inflation. Rigid reserve requirements might unnecessarily cramp our System at the threshold of a revival. If the founders of the reserve system had been able to envisage the loopholes embodied in the reserve provisions of the Federal Reserve Act, and the later amendments, they undoubtedly would have taken measures to correct them. Correction, however, would have been unfortunate, for these deficiencies made possible the financing of the War. Similarly we must not be too fearful of loopholes to-day. This is not to contend that the reserve requirements of 1914 could have been an insuperable obstacle to the creation of necessary supplies of credit in 1915-19. The normal amount of reserve credit outstanding would undoubtedly have been larger, new methods of evasion would have been discovered, legal and extra-legal; finally the law would have been modified. On the other hand, the rigidity of requirements may prove to be a real obstacle, temporarily at least. Thus although collateral requirements have gradually been broadened as the need has arisen, the situation in the summer of 1931 found us entirely unprepared, in part because unjustifiable collateral requirements tied the hands of the reserve authorities. It required almost six months to have them revoked.

One other criticism along broad lines may be made of the report of the Reserve Committee to which reference is made above. Is the Committee not going too far in placing upon the reserve banks full responsibility for assuring members against illiquidity? Relief in the form of reduced reserve requirements ought not to be given to country banks to-day, regardless of the intentions of the legislation of 1914 and 1917. They are the least liquid of all banks and hold a disproportionate amount of unsound assets. It is perhaps fortunate that they are required to hold larger cash reserves than was intended.

The next question for consideration is that of note policy. A central bank may, of course, put an early end to a threat of inflation by refusing to issue additional notes. Central banks, however, are increasingly skeptical of the advisability of using such extreme measures. Under the pre-war British system (and to some extent under the present system) the restriction upon issues of notes was an additional weapon in the possession of the central bank, because additional issues were reflected in a reduction of the banking reserves, which usually were sensitive to small changes. Issues of notes under the Federal Reserve System do not as a rule involve a corresponding depletion of reserves; they usually involve a loss of reserves equivalent, roughly, to 40 per cent of the additional notes issued. But it is conceivable under the System in vogue before 1932 that surplus reserves may be small and paper eligible as collateral deficient, with the result that issues of notes may have effects analogous to similar issues under the pre-war British system. Even under the pre-1932 System, however, a concomitance of deficient collateral and depleted reserves was most unlikely.

It is not to be assumed, on the other hand, that the issue of notes does not serve as a check to expansion. The money market is deprived of one dollar of reserves for each dollar of notes issued. That issues of notes have not been more restraining is to be explained by the assumed responsibility of reserve banks to finance issues by purchases of securities or acceptances; and, let us add, they have been disposed to offset the influxes of notes. Even in the early months of 1931 the reserve banks offset incoming issues to some extent. Sometimes the interest in movements of notes on the part of reserve banks has been obscured by the fact that fluctuations in notes are merely one factor determining the cash position of member banks.

In view of the fact that reserve banks have assumed the responsibility of financing outflows of notes and offsetting the inflows, it can

scarcely be expected that the extreme measures of refusing or discouraging the issue of notes would be taken, even though the Act provides the reserve authorities with adequate powers along these lines. But in the early post-war period reserve authorities seriously considered the possibility of taking this easy road to effective policies. Hamlin and others, however, pointed out that the issue of notes was merely a method of conserving gold on the part of reserve banks, and there was no means available of preventing banks from converting deposits into notes.

PART I

BANK RATES AND DISCOUNT POLICY



INTRODUCTION

IN PART I, I shall present what is hoped to be a comprehensive discussion of the history and theory of Bank rates and the objectives of discount policy in the United States since 1914; but this discussion cannot be studied in isolation; it is my hope that what is said in relation to discount rates will be considered in conjunction with subsequent discussions of open market operations, bankers' acceptances, moral suasion, indebtedness of member banks, the right to rediscount, eligibility, and the inter-banking relationships. It is clear that a satisfactory understanding of discount policies is not possible without a study of all these problems. The weapons of control in the United States have been both numerous and novel; they have been competing instruments at one time and supplementary at another.

In 1914 all central banks relied on the discount rate. By 1929, it was glaringly apparent that the discount rate had lost its potency; and nowhere was the change more apparent than in the United States. Even to many of the leaders who were struggling desperately in 1929 toward a more vigorous rate policy, it had become only an instrument to be used in a campaign of moral suasion, only a plea for cooperation. In an official pronouncement that an increase in the discount rate might be interpreted as an announcement that unlimited credit would be available at the increased price, we have some evidence of the nugatory position to which the discount rate in the United States had subsided.

Undoubtedly, the glamor of the discount rate derives in large part from its effectiveness in attracting gold or in preventing an efflux of gold. But that objective has never played an important part in the United States. Results from higher rates, in truth, have been disappointing because gold has been moved to this country under the stimulus of high rates when increases in rates were introduced to restrain speculation.¹ The increased significance of rates on the call

¹ In a reply to a committee of the U. S. Senate, the New York Bank in 1931 pointed out that it was necessary to balance the influence of reserve bank policy upon the rate of growth of bank credit in the United States with its influence upon gold movements. The inflationary effects of imports of gold could only be postponed, not averted. Higher rates, necessary to check speculation, would have increased the inflow of gold. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 762; cf. p. 766; and H. L. Reed, *Federal Reserve Policy, 1921-30*, p. 185.

market, the hesitancy in using the discount weapon as its use has become more generally understood and as economic conditions have become more disturbed, the increased internationalization of investment funds, long and short term, the possibility of large movements of short term capital that might embarrass central banks, and the increased capacity of financial centers other than London to attract funds by increasing the Bank rate — all of these factors have contributed to the loss of effectiveness of the Bank rate.¹

Even in Great Britain, the Bank rate is not of so great importance as in earlier years. Criticism of the policy of frequent changes in the Bank rate, especially when the underlying conditions are sound and the occasion for an increase is a temporary disequilibrium in the international balances of payments, is peculiarly revealing. Under more stable conditions in the pre-war period, however, fluctuations in Bank rates were more common. Gold movements of very large proportions have occurred in recent years while the rate has remained unchanged. Authorities have been anxious to maintain stable conditions and hence have offset movements of gold by open market operations.² A loss of gold is not so likely to cause increased rates on the money market as in pre-war days, and hence it has not been necessary to raise the Bank rate in order to bring it in line; moreover, economic conditions have been unsatisfactory, and hence increases in rates that were required by the fundamental economic conditions have not been introduced. Perhaps the tendency of Great Britain to borrow on short-term and lose gold since 1925 may have been corrected by more frequent use of the discount rate as a means of bringing prices down. Perhaps a greater span in the downward movement of prices and costs may have forced the nation to face the problem of bringing down costs.³ Also, the reduced im-

¹ In replies submitted to a Senate committee in 1931, reserve banks, as might be expected, were overly optimistic concerning the effectiveness of the Bank rate. They admitted, however, that the high call rates, loans on account of others and faulty administration had impaired its effectiveness. *Hearings: Operation of Banking Systems* (71: 3), 1931, pp. 765-766.

² *The Macmillan Report* does not give the Bank of England adequate credit for pursuing a policy of stability of rates along the lines recommended by the Committee. Under the spectacular conditions of 1927-29, and in spite of a loss of gold of twenty to thirty millions sterling, the Bank rate remained unchanged for a period of a year and a half. The Bank has refrained from using the rate to correct temporary disequilibria in the balance of payments. Committee on Finance and Industry, *Report*, Cmd. 3897 (1931), especially pp. 76, 96-98, 150-154.

³ This is not suggested as a practical program.

portance of trade bills makes the rate less effective in driving foreign borrowers away from London. Possibly another reason for the reduced potency of the *English* Bank rate is that the Bank rate has become a more important factor elsewhere; it is less easy to draw funds from other centers by raising rates if other countries also raise theirs.¹ Now let us turn to the discussion of discount rates.

¹ *The Macmillan Report* concludes that it is easier to attract short-term funds than formerly, for New York is a competing center and international funds are larger. But in that interpretation the possibility of movements in the New York rate is neglected, although it is true that in the last few years New York has not as a rule actively competed for short-term funds. The danger is, as is pointed out in *The Macmillan Report*, that an increase in rates now results in an increase in debts rather than a repayment of obligations. Committee on Finance and Industry, *Report*, Cmd. 3897 (1931), p. 149.

CHAPTER I

THE PENALTY RATE — HISTORICAL

I. INTRODUCTION

IT HAS been widely held that a central bank rate, to be effective, must be above the market rate. The origin of this theory is not easily traced. Probably the historical importance of the penalty rate has been exaggerated. In the period from the Napoleonic Wars to 1844, the Bank of England rate was generally above the market rate; but the object was not to make borrowing at the Bank unprofitable; rather, the high rates reflected the recognition of the responsibility of a semi-public institution endowed with special privileges. It was not considered proper to compete for bills with the private banks; and the Bank was content to restrict its business for the most part to investments in public securities. When monetary conditions were strained, the Bank rate was no longer a penalty rate, and little effort was made to maintain the *normal* span between market and Bank rate. Also, the Bank apparently relied to some extent on discrimination. The Act of 1844 was based on the theory that the Bank of England should function in the manner of commercial banks; consequently the Bank reduced its rate to the level of the market rate and then advanced the contention that it was more profitable to invest in bills than in securities because the sale of the latter frequently involved large losses. Penalty rates were probably first used in a later period when the Bank began to induce stringency by the use of artificial methods, later penalizing the bill brokers who were forced to sell their bills to it. The Bank also introduced the practice of competing with the market through the use of a private rate. Clearly the penalty rate was of significance only in periods of strain; its effectiveness lay in the pressure put upon brokers to offer a lower price (higher discount) for new bills. It is not equally clear that bill brokers really suffered a large penalty on the *entire* transaction, for they sold bills approaching maturity on which they had already made large profits, with a resultant loss limited to the difference in interest for but a few days; or they did not sell the bills to the Bank. The penalty may more properly be

traced to the reduction in the volume of financing by Sterling.¹ But there is also a loss (or a reduction in the profit) on bills in the possession of the market not disposed of to the Bank. The rate on borrowed money rises with the increase in the Bank rate; but the return on bills in the portfolios of brokers and banks is fixed.

Tactics in England should hardly have been taken as a precedent for American practice, for in British experience the relationship was purely impersonal.² A bill broker there would find it unprofitable to invest in new bills at 6 per cent when he might be compelled to pay the Bank 6 per cent or more. The threat of an increase in Bank rate would delay purchases until the bill market reflected the higher rates. We shall see that the American problem is an entirely different one; for a penalty rate may not be a deterrent here, and the mere definition of a penalty rate, to say nothing of its incurrence, offers insuperable obstacles.

Experience on the Continent is even less valuable as a guide for American experience. Traditionally, Continental central banks are also accommodation banks and are satisfied to follow rather than determine or influence market rates. Perhaps they have been inclined, as have the reserve banks, to minimize their influence. A lender with large resources — whether a central bank or not is inconsequential — especially if these resources normally are not fully employed, plays a part in the determination of market rates. But the evidence points to the conclusion that the central banks were members of the market rather than dictators.

In this chapter I discuss penalty rates under the Federal Reserve System. It will be apparent that the System was launched auspiciously.

¹ Cf. J. M. Keynes, *op. cit.*, II, 228–229.

² Too much attention has been paid to the British rate structure. Particularly unfortunate is the frequent reference to the rate structures during the War; the Bank of England was apparently enforcing a penalty rate in contrast to American practice (B. H. Beckhart, *op. cit.*, pp. 279–281). In fact, the Bank rate was of little significance, for the significant rate was that paid on Special Deposits by the Bank of England, and the rate on commercial bills was artificial and not significant: the market was restricted; the Treasury bill rate was the significant market rate.

Keynes points out that the call money rate, the market rate on bankers' bills and the Bank rate are in an ascending scale in London while the reverse is true in New York. J. M. Keynes, *op. cit.*, II, 238. Of course, this rate structure is not consistently maintained in New York.

Goldenweiser among others makes the point that advances from the Bank of England are made on paper yielding a rate lower than the Bank rate and in the United States on paper yielding a rate in excess of the Bank rate. E. A. Goldenweiser, *The Federal Reserve System in Operation*, p. 47.

ciously, for penalty rates, at least in relation to the market rate on commercial paper, were introduced at the beginning; but there was no clear conception of the theory of penalty rates; and the objective was to conserve resources.¹ Moreover, even at this early date, the rate was not above the rate on line-of-credit advances, and the introduction of penalty rates, in relation to rates on commercial paper, was possible only because market rates were depressed by the large influx of cash. With the entry of the United States into the War, the application of the doctrine was suspended, for war finance demanded the use of reserve facilities at rates slightly below coupon rates on Government securities, in other words, those below the return earned by banks on most investments.² (A penalty rate was, however, enforced on acceptances.) Post-war inflation brought forth official threats and announcements of the impending application of penalty rates; and in the period of deflation, the necessity of rates above those of the market was deemed an excuse for prolonging the period of high discount. Even in this period, however, the Bank rate was not in excess of the return on a majority of member banks' assets. By 1922-23, the doctrine was repudiated once more, and less attention was given thereafter both to penalty rates and discount policy in general.

2. AN AUSPICIOUS BEGINNING

The rates introduced in 1914 were penalty rates as against investments available for purchase by the reserve banks. It was announced that: "A study of the existing state of affairs satisfied the Board that at the start and until the banks could get a firm footing, it should act with prudence and conservatism, and it was consequently voted to fix the rates of discount at from $5\frac{1}{2}$ to $6\frac{1}{2}$ per cent."³ Again: "The adoption of a discount policy which would prevent the

¹ Commercial rates sagged with the large influx of gold and the reduction of reserve requirements. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 31; B. H. Beckhart, *op. cit.*, p. 203.

² At first the rate of issue of Treasury certificates of indebtedness was approximately $\frac{1}{2}$ - $\frac{1}{4}$ of 1 per cent above the rate of the New York Reserve Bank on advances collateralized by them; but by the latter part of 1917 the difference was 1 per cent, and in 1918, approximately $\frac{1}{2}$ of 1 per cent. *Ibid.*, p. 279.

Apparently rates were kept down because of the fear that higher rates might result in further depreciation of securities. "Report of the Committee on War Finance," *American Economic Review, Supplement*, No. 2, March, 1919, p. 110.

³ *F.R.A.*, 1914, p. 10.

accumulated strength of the banks from being dissipated and protect their resources from being used to finance operations not calculated to add to the strength or solidity of general banking conditions.”¹ A similar announcement of policy was made by the New York Bank, which specifically stated both in 1915 and 1916 that its policy was to set rates somewhat above the level of current rates for commercial paper.²

In support of its early policy of penalty rates, the System had the support of Hulbert, the adviser of President Wilson on banking principles; Reynolds, President of the American Bankers' Association; and Forgan, who, as president of the Federal Advisory Council, recommended the maintenance of rates above the market level. These three bankers, who had played a prominent part in the passage of the Federal Reserve Act, now warned officials of the danger of rates below market rates, which, they feared, would lead to a continuous and excessive use of the facilities of the System.³ An Organization Committee of reserve bank officials also recommended that discount rates be maintained at a high level in order to discourage rediscounts.⁴

Rates were gradually reduced in 1915 and 1916. Preferential (and low) rates were established in 1917 on paper secured by Government securities. Since public securities were available in large quantities and since member banks borrow under the most advantageous terms possible, rates on loans thus secured became the standard. The Boston Reserve Bank reveals that, early in 1917, at the suggestion of the Board it raised its buying rate on acceptances.⁵ Thus a penalty rate was established for bankers' acceptances, but a penalty rate of limited scope, for member banks could borrow adequately at a profit, and hence were not compelled to sell acceptances to the reserve banks at a loss. It is revelatory of the extent to which the Treasury dominated the money market that in spite of the anxiety to develop an acceptance market, the Bank rate on certificates was lower than the rate on acceptances. In Great Britain, the reverse was true.

¹ *Ibid.*, p. 7.

² *N.Y.R.B. Ann.*, 1915, pp. 14-15; *ibid.*, 1916, p. 10.

³ *C.F. Chr.*, 1914 (98), p. 1894 (Address by Hulbert); *ibid.*, 1914 (99), p. 661 (Address by Reynolds); *F.R.A.*, 1918, p. 773 (Reply of Forgan as president of the Federal Advisory Council, March 7, 1915).

⁴ *F.R.A.*, 1914, p. 172.

⁵ *Boston R. B. Ann.*, 1917, pp. 13-14.

In the midst of the excitement of 1917-18, the theory of penalty rates was given little attention. Early in 1918, however, Warburg told a Senatorial Committee that the Federal Reserve System could raise rates to a point where banks would refrain from presenting paper; but he was not certain of the success of this policy in war times.¹

3. THE THREAT OF PENALTY RATES, 1919-20

In 1919-20, the discount rate as a weapon of control was used tardily and rather ineffectively. It will be apparent from a later discussion of this period that Federal Reserve officials were not entirely without blame: the Treasury was not wholly responsible.² The average rate at the New York Federal Reserve Bank from October, 1918, to October, 1919, stood at 4 as compared to a rate of $5\frac{1}{2}$ per cent on prime commercial paper. Even when the New York rate was at its maximum in 1920, its *average* rate was approximately 1 per cent below that on prime commercial paper;³ but the rediscount on commercial paper roughly equalized the market rate.

Benjamin Strong, a staunch defender of penalty rates, warned member banks in December, 1919, that they were not to take advantage of low rates introduced to satisfy seasonal needs for the purpose of increasing their profits.⁴ Perhaps at this time the New York Bank was seriously concerned with the problem of accommodating trade; but unfortunately the requirement that discount rates be established "with a view to accommodating trade and commerce" (Section 14) has always been an obstacle to the enforcement of an adequate discount policy. More will be said of this later. It is clear from a letter written by Secretary of the Treasury Glass to Governor Harding in which circle the distrust of high rates was

¹ U. S. Senate Finance Committee, Hearings: *Establishment of War Finance Corporation* (65: 2), 1918, p. 66. As early as 1913, Warburg had pointed out the difficulty of enforcing a Bank rate in excess of the return on all types of investments. P. M. Warburg, *The Federal Reserve System*, 1, 666 (*op. cit.* will be used hereafter for this work only).

² Harding said that in April, 1919, the Board gave serious consideration to the suggestions made by several reserve banks that the discount rates be advanced. In August and September, the Board desired an increase; but the Treasury objected. The Joint Commission on Agricultural Inquiry concluded that an increase should have been approved in spite of the Treasury's objections. W. P. G. Harding, *Formative Period of the Federal Reserve System*, pp. 148, 157-158, 297.

³ *F.R.B.*, 1920, p. 942.

⁴ *B.M.*, 1920 (100), pp. 8-9.

keenest. The Board had just approved the first important increase in rates. In this letter, dated November 5, 1919, Secretary of the Treasury Glass wrote: "I hope that the Federal Reserve Board will not allow the Governors of the Federal Reserve Banks to rely wholly or too heavily for the prevention of the abuse of the facilities of the Federal Reserve System, upon the increase in rates now established with the approval of the Board, myself included."¹ He admitted that Bank rates in excess of market rates were normal; but conditions were not then normal, and high rates would discourage legitimate borrowers.² In the previous month, the Board had expressed similar doubts concerning the expediency and effectiveness of higher rates: it was felt that they would not have been effective in restraining appreciably the use of credit unless they were so high that legitimate business would be injured.³

Early in 1920, there was a change in attitude. In the *Annual Report* for 1919, issued early in 1920, the Board commented as follows:

The rediscount rates of Federal Reserve banks, therefore, instead of being higher than the market rates, as in theory and in normal practice they should have been, were made lower than the market rates. This circumstance is enough to prevent a normal functioning of a Federal Reserve Bank, whose rates should be so fixed that resort thereto is unprofitable to the borrowing institution and thus has a tendency to check expansion.⁴

A similar position was assumed by the Kansas City Reserve Bank, which announced its intention to raise discount rates, "to a point where profit will be eliminated in discount transactions with the Federal Reserve Bank."⁵

At an earlier date, the Board had expressed concern over the preferential rates on war paper. In a letter to the governors of the

¹ *Mim.L.S.*, 1919 (11), x-1718a, p. 856.

² *Ibid.*, pp. 856-857.

³ *F.R.B.*, 1919, p. 911.

⁴ *F.R.A.*, 1919, p. 2. In 1920-21 the Board made repeated announcements of the impending introduction of penalty rates. "And that is an ideal situation which we have been trying to work to, but never have succeeded in getting to, and under the conditions existing in this country it may be several years before we can get to it—that is, to keep the discount rate of the Federal reserve bank a little above the market or going rate, so that, while providing funds for accommodation, there is no incentive for a member bank to discount merely for the sake of making a profit because of the difference in rate which he charges his customer and the rate at which the Federal reserve bank will rediscount for him." Hearings: *Agricultural Inquiry* (67:1), 1921, Pt. 13, p. 313.

⁵ *Kansas City R. B. Ann.*, 1919, p. 9.

reserve banks, dated October 16, 1919, Governor Harding pointed out that member banks carrying public securities much in excess of their capital and surplus were rediscounting them with the reserve banks at a profit.¹ In particular, he cited an instance of a member bank that had capital and surplus of 250,000 dollars, 1,659,000 of Liberty bonds, 200,000 of Victory notes, 173,000 of Loans and Discounts, 110,000 of Deposits, and 1,950,000 dollars of Bills Payable with the reserve bank; yet its contribution to the Federal reserve capital stock was but 7,000. It could thus obtain a profit of 5,647 without the use of any capital.² The Federal Advisory Council, early in 1920, confirmed the need of rates higher than the coupon rates on Treasury certificates.³ This opinion was supported by the American Acceptance Council, which found unjustifiable preferential rates on war paper and commercial paper, and rates on acceptances high in relation to the market rates on them.⁴ But as late as July, 1920, the Board was not prepared to approve rates above those on certificates, and considered several alternative methods of preventing excessive loans on war paper.⁵ The Board, however, approved penalty rates on notes secured by Victory notes and Liberty bonds, in order to discourage speculation.⁶

In May, 1920, the Board held its famous conference with reserve bank officials, in which it is popularly assumed a policy of higher rates and deflation was definitely approved.⁷ Sentiment in favor of higher rates was not by any means unanimous. For example, McDowell of the Minnesota Reserve Bank feared that the "little

¹ *Mim.L.S.*, 1919 (11), x-1701, pp. 817-818.

² *Ibid.*, p. 818.

³ *F.R.A.*, 1920, pp. 601-602.

⁴ *Acc.Bull.*, January, 1920, pp. 1-2.

⁵ *Mim.L.S.*, 1920 (13), x-1972, pp. 654-658. In a letter to Senator Owen, who had protested at high rates, Governor Harding pointed out that, with low rates on war paper, reserve banks would have been overwhelmed with offers of paper. *C.F.Chr.*, 1920 (110), p. 1934. Early in 1921 the Treasury protested at the failure of the reserve banks to introduce rates on loans secured by Treasury certificates in excess of the coupon rates. *Mim.L.S.*, 1921 (14), p. 126. Finally in 1921 the Bank rate on Treasury certificates of indebtedness was raised, and the yield on certificates began to decline so that the Bank rate was approximately 1 per cent in excess of the yield during the greater part of 1921-23. B. H. Beckhart, *op. cit.*, p. 392.

⁶ *Mim.L.S.*, 1920 (13), x-1972, p. 658. In its *Report* for 1920, the Treasury, in maintaining that the government was not under any obligation to guarantee the holders of Liberty bonds against fluctuation in the market rate for money, defended the action of the Board. Secretary of the Treasury, *Annual Report*, 1920, pp. 127-132.

⁷ As a result of the false rumors in circulation concerning the action taken at this conference, the Board in 1923 published the minutes of this conference. U. S. Senate Document No. 310 (67: 4), 1923.

fellow" would be penalized;¹ Scott of the Dallas Bank contended that a 10 per cent rate would leave the situation uncorrected;² and McIntosh of the San Francisco Bank would not wield a club on friends and foes alike.³ In this first tussle between the adherents to the use of discount policy and those of moral suasion, Governor Harding seemed to favor the latter.

The representatives of the New York Bank were in the forefront of the struggle to introduce penalty rates. Thus, Mr. Alexander, a director of the bank, said: "A percentage of 1 per cent is not a very heavy penalty in the way of an interest charge but it is a very positive announcement that the credit situation is such that further expansion must be prevented and that curtailment should be had whenever possible." Treman of the same bank held a similar opinion.⁴

Bailey of the Kansas City Reserve Bank expressed the same thought in more vivid language:

You have made the Federal Reserve Bank of Kansas City a broker shop, you have changed it from a reserve bank to a commercial bank, and I want to get it back, and that is the reason why I am in favor of a graduated rate. . . . We have been talking deflation to every one of the men who have borrowed more than their capital and surplus that was the old basis we figured on — and you can take it from me that you may talk patriotism and conservatism to a man who can make money until you are black in the face, and you have got to make it unprofitable for him to stop it.⁵

By October, the program of deflation had made considerable progress, and the sentiment in favor of penalty rates seemed to be strong. Statements of Vice-Governor Platt of the Board and Governor McDougal before the Conference of the Board and Governors were typical.⁶

4. THE FAILURE TO ENFORCE PENALTY RATES, 1921-31

Although the Board was not consistent in its utterances on this subject in 1921, it is clear that it was wavering in its adherence to the principle of penalty rates. In a memorandum on special commodity rates, the Board proposed special rates although it reminded

¹ *Ibid.*, p. 29.

² *Ibid.*, p. 37.

³ *Ibid.*, p. 14.

⁴ *Ibid.*, p. 35.

⁵ *Ibid.*, pp. 31-32.

⁶ *C.F.Chr.*, 1920 (111), p. 1137; *Proceedings*, October, 1920, I, 51-52. Cf. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 381-382.

the reserve banks that it had consistently taken the position that the discount rates of Federal reserve banks ought normally to be somewhat higher than market rates.¹ In a letter to Governor McKelvie of Nebraska, Governor Harding defended the policies of the System; but he seemed less disposed to support the principle of penalty rates. "The Federal Reserve Board is watching the rate situation closely and is anxious to have the rates of each Federal reserve bank bear the proper relationship to current rates in the respective districts."² At the Conference of Governors and Agents in October, 1921, Governor Harding quoted an opinion of Milwaukee bankers on the need of penalty rates when demands are excessive and pointed out that the line-of-credit loan is not competitive, and hence is not so true an indication of market tendencies as is the rate on acceptances.³ In the Board's report for 1921, it was revealed that the margin between the average rate charged customers by member banks on paper rediscounted with reserve banks and the charge made by reserve banks themselves varied from 1.27 in San Francisco to 2.87 per cent in the Kansas City District.⁴ "The law imposes no limit upon the amount that a member bank may rediscount with its Federal reserve bank and the maintenance of a 4 per cent Federal reserve bank rate in the face of an 8 per cent open market rate was manifestly impossible."⁵ This statement, in all conscience, was far from a declaration of faith in penalty rates.

At this October Conference, the Board had announced that penalty rates were not practicable in relation to line-of-credit advances, inferring that those in excess of open market rates might be so. In commenting on a request on the part of a reserve bank for a reduction of rates, Governor Harding said,

No evidence has been presented to show that current rates for bank accommodation are less than the Federal reserve bank rate, or that current rates would be reduced by lowering the reserve bank rate, but the directors argue that the consolidating reserve position of the system justifies a low rate.⁶

¹ *Mim.L.S.*, 1921 (15), X-3187, p. 923.

² *Addresses and Statements of W. P. G. Harding*, No. 16 (Letter to Governor McKelvie, September 29, 1921). (Bound volume in Federal Reserve Board Library.)

³ *Ibid.*, No. 17. (Remarks of W. P. G. Harding at Opening Session of Joint Conference with Agents and Governors, October 25-28, 1921).

⁴ *F.R.A.*, 1921, p. 31.

⁵ *Ibid.*, p. 32.

⁶ *Addresses and Statements of W. P. G. Harding*, No. 17.

It was reported from reliable sources that the Board had already applied pressure on the Chicago Bank to reduce its rate. The Board agreed that although a penalty rate was proper, political expediency demanded a reduction.¹

At the October Conference in the succeeding year, 1922, a prolonged and important debate was held in which Strong defended the use of a vigorous rate policy and Perrin, Chairman of the San Francisco Bank, argued for the use of discretion. On the whole, it seems that Perrin had the better of the argument. In addition to what directly follows, this conference will be discussed in the next and a still later chapter.

Perrin pointed out that even in New York, customer rates were above the Bank rate, and that since penalty rates were not practicable, *discretion* was the only manner of dealing with the situation. Each bank, he argued, required individual study.² He was supported by Chairman Martin of the St. Louis Bank.³

Strong admitted that conditions might be different in San Francisco, and that where member banks charged high rates, a penalty rate was difficult of enforcement.⁴ He felt it was adequate that the reserve rate be above the *average* rate charged by member banks, and he distinguished a penalty rate from an effective (or restraining) rate, by which he meant a rate that would be restrictive relatively to an appreciable part of the member bank's credit.⁵ It was not possible, in his opinion, to deal with ten thousand banks individually.⁶ He was supported by Governor McDougal of Chicago, who pointed out that a 4½ per cent rate had been effective for some time in the Chicago District, and by Governor Young of Minneapolis, who said that if commercial rates in the Twin Cities

¹ From *Chicago Journal of Commerce*. Quoted in *C.F.Chr.*, 1921 (113), p. 476. Governor Strong seemed to object to a reduction in rates so long as borrowers in difficulties were being carried by the banks. Hearings: *Agricultural Inquiry* (67:1), 1921, Pt. 13, p. 714.

² *Proceedings*, October, 1922, I, 201-203, 214, 225.

³ *Ibid.*, pp. 141-142.

⁴ *Ibid.*, pp. 174-175. Sprague pointed out in 1916 that banks in the agricultural sections would be influenced by local conditions and that the large reserve banks would shape their policies according to the financial situation at home and abroad. O. M. W. Sprague, "The Federal Reserve Banking System in Operation," *Quarterly Journal of Economics*, 1916 (30), p. 645.

⁵ "... make a rate which is reasonably restraining upon the greatest amount of credit to which the rate can be applied and then we will do the best we can with the rest of it." *Proceedings*, October, 1922, II, 262; cf. *ibid.*, I, 201-203; and *ibid.*, II, 263.

⁶ *Ibid.*, I, 226.

rose above the rate of the Minneapolis Bank, the latter would raise its rate.¹

Outside of the Federal Reserve System, there persisted a belief in the desirability of penalty rates;² but the doctrine received less and less support in official circles.³ The Board frankly contended that the discount rate could not be in excess of the rates charged by members to customers on paper eligible for rediscount: rates as high as 10-12 per cent were being charged in some sections. But the discount rate exceeded that of the market on bankers' acceptances.⁴ In 1923, the Board pointed out that the spread between the reserve bank rates and the charge on paper rediscounted by member banks varied from .65 of 1 per cent to 3.91, although Federal reserve rates fluctuated from 4.42 to 4.50 per cent. "It follows that the Federal Reserve Board, in approving the maintenance by all Federal reserve banks of rates at a uniform level practically throughout the year, was guided by no mechanical rule as to the necessity of maintaining a fixed and invariable relationship between reserve bank rates and member bank customer rates." The Board and reserve banks "cannot adequately discharge their function of 'fixing rates with a view to accommodating commerce and business' by the simple expedient of any fixed rule or mechanical principle."⁵ The Board then pointed out that conditions in the United States were similar to those in England, for the discount rate was above the rate on acceptances in both countries and below the rate on customer loans.⁶ Thus was voiced the Board's first straightforward denial of the applicability of penalty rates. Dr. Miller had made an equally vigorous statement at the Conference of Chairmen and Governors in October, 1921.

I may, however, say in contradiction to the oft-repeated statement that reserve bank rates should be above market rates that I believe our constant study should be not to see how high we can maintain rates but how far we can safely go in establishing rates without inviting dangers of unhealthful developments in business and industry.⁷

¹ *Proceedings*, October, 1922, I, 87-88; *ibid.*, II, 329-330.

² J. B. Forgan, "Currency Expansion and Contraction," *Annals*, 1922 (99), pp. 167-173; "Gold and Rediscount Policy of the Federal Reserve Banks," *Chase Economic Bulletin*, July, 1921.

³ Ex-Governor Platt recently said that the members of the Board appointed since the deflation period have been of the opinion that the Board had been responsible for deflation and hence have hesitated to increase rates. Hearings: *Operation of Banking Systems* (71:3), 1931, p. 210.

⁴ *F.R.A.*, 1922, p. 15.

⁶ *Ibid.*, p. 8.

⁵ *Ibid.*, 1923, pp. 7-8.

⁷ *Mim.L.S.*, 1922 (16), x-3400, p. 565.

At the 1924 Conference, Dr. Miller was struck by the fact that although the personnel of the Conference had not changed, there was comparatively little attention paid to rates in 1924 as compared to the attention given them three or four years previously.¹

Governor Strong now merely commented on the need of securing control over money and credit conditions through increases in the buying rate on bills.² In 1926 he made the usual analogy between the Bank of England rate and our buying rate.³ In commenting on an increase in the rate of the Philadelphia Reserve Bank, Governor Norris pointed out that the responsibility of the reserve bank was to assure itself that the price of Federal reserve credit was not made so low as to encourage an unhealthy speculation.⁴ In a public address, Mr. Jay, Federal Reserve Agent of the New York Bank, said that the Board was provided with a power of review so that no reserve bank might extend credit at a rate entirely out of line with general conditions.⁵ In the midst of its struggle for higher rates in the early part of 1929, the New York Bank was satisfied with the following statement: "It has, therefore, become the prudent practice of banks of issue to subject extraordinary increases in the use of credit to the test of higher interest rates."⁶ If spokesmen of the New York Bank had so little to say for penalty rates, it is probable that the theory had now been discarded in the East, as it had been in the West and South several years earlier.⁷ Sprague commented on the lack of borrowing for profit; it was not anticipated that banks would borrow unless restrained by penalty rates.⁸

¹ *Proceedings*, November, 1924, p. 250.

² *Ibid.*, November, 1925, pp. 148-149. Strong had not given full support to the principle as early as 1921. Rates "should not be such penalty rates that the member banks cannot get relief in meeting their necessary normal or seasonal requirements." Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 516.

³ Hearings: *Stabilization* (69: 2), 1926, I, 318. ⁴ *C. F. Chr.*, 1925 (121), p. 2595.

⁵ *Acc. Bull.*, June, 1925, pp. 14-17. ⁶ *N. Y. R. B. Ann.*, 1928, pp. 16-17.

⁷ In private discussions with the Board in 1929, the New York Reserve Bank seemed more favorable toward the use of the Bank rate. At first the officials of the New York Bank maintained that an increase of rates was necessary to protect reserves and prevent a runaway market; but later emphasis was put on the unfortunate effects of speculation, the attraction of capital from Europe and the requirement of a penalty rate in relation to open market rates. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 172-173. At the 1931 hearings, Governor Harrison of the New York Bank contended that an increase in the discount rate would result in the curtailment of undesirable forms of borrowing and, moreover, that it was an announcement of the desire for a reduction of discounts. He preferred an increase in the rate to admonition. *Ibid.*, pp. 55-57, 69, 73-74. Cf. *ibid.*, pp. 765-766.

⁸ Hearings: *Brokers' Loans* (70: 1), 1928, p. 59.

Several statements of Governor Harding indicate the changing attitude of the Board. In February, 1920, he said that "the normal functioning of any central bank abroad or a reserve bank here is to have its discount rate higher than the market rate so that there is no profit to a member bank rediscounting for the sake of rediscounting in order to reloan here."¹ In September, 1920, the demand for penalty rates was clearly stated. "The rediscount rates of the Federal reserve banks were much below the market rates for money, thus affording member banks an opportunity for profit in their rediscount transactions, and making it exceedingly difficult to keep in check borrowing demands made upon them."² At public hearings in July, 1921, Governor Harding pointed out that member banks in the San Francisco District could lend at 12 per cent; a penalty rate was therefore not practicable.³ Many years later, Harding made the following significant statement, which reveals that in place of a system of penalty rates, the officials were forced to be content with a system of rates related in some manner to market rates: "Beginning with the year 1920, and continuing up to the time I left the Board, the discount rates which were approved from time to time for the various Federal reserve banks, while lower in some districts than the average going rate, were related to current market rates in the larger centers. In regarding market conditions and rates as the chief factors to be considered in the establishment of a Federal reserve rate, the Board and the bank adopted a principle which has long been recognized and put in practice by central banks in other countries."⁴

¹ U. S. House Banking and Currency Committee, *Hearings: Abolition of the Sub-treasuries* (66: 2), 1920, p. 9.

² W. P. G. Harding, *The Functions and Policies of the Federal Reserve System*, p. 4. (Address at Cleveland, September 16, 1920.)

³ U. S. Senate Banking and Currency Committee, Subcommittee, *Hearings: Amendment to Federal Farm Loan Act and Federal Reserve Act* (67: 1), 1921, p. 48.

⁴ W. P. G. Harding, *Formative Period of the Federal Reserve System*, p. 254.

CHAPTER II

PENALTY RATES — INTERPRETATION

I. WHAT IS A PENALTY RATE?

IN THE early days of the System were established rates that were penalty rates in relation to those on open market investments; but the desire to do business and pay dividends, the War, and, at last, political pressure successively operated to bring rates down, relatively, to market rates. Political pressure was especially evident in the Board's attitude in 1921-23, and the vulnerability of the Board is apparent in its memorandum on special rates in agricultural sections. Unable to maintain a 6 per cent rate in 1921 (a rate below the return on the bulk of bank investments), the authorities gradually retreated from the position taken in 1919-20.¹ By 1924, there was little said of penalty rates; and the full explanation is by no means to be found in political expediency.

When the authorities were faced with the problem of carrying out their first threat to enforce penalty rates, closer examination revealed that a member bank earned varying returns on its investments, and that a proper rate ought to be adjusted to the return on the particular type of investments under consideration. In 1921, an attempt was made to define current rates in order to obtain a basis for the determination of penalty rates.² Lines of credit were ruled out at an early stage of the discussion.³ It will be recalled that Strong suggested a penalty rate in relation to average rates charged by member banks,⁴ and that Governor Harding suggested a rate above the return on open market investments.⁵ Miller referred to

¹ In 1920, Willis pointed out the difficulties of enforcing a penalty rate. H. P. Willis, "Federal Reserve System and Inflation," *Proceedings of Academy of Political Science*, 1920, pp. 49-50.

² See the questions addressed to the Federal Advisory Council in 1921. *F.R.A.*, 1921, p. 690. In 1918, the Board had begun to seek information on rates charged by member banks on rediscounted paper. *Mim.L.S.*, 1918, x-1190.

³ *Addresses and Statements of W. P. G. Harding*, No. 17; *Proceedings*, October, 1922, I, 214.

⁴ *Ibid.*, pp. 201-203.

⁵ *Addresses and Statements of W. P. G. Harding*, No. 17.

an effective rate in force in 1923, when the reserve rate was above the open market return.¹ By relating the penalty rate to the lowest return obtained by banks on their investments, Burgess interpreted the doctrine in a manner that made its enforcement a relatively easy task;² but for Warburg, it became a formidable task: he suggested that a penalty rate for one bank might be the reverse for another.³ A rate above the return on call money was ruled out;⁴ Dr. Miller, however, testified that members preferred to lend on the call market rather than to repay the reserve bank when call rates were high.⁵ Ex-Governor Platt contends that the rate is related to the purposes for which member banks borrow: in the large cities, the rate is related to the return on open market paper; in western cities, reserve banks consider the competition with customer rates of banks in financial centers. If advances are made to cover losses of deposits or currency, penalty rates are out of the question.⁶

The consensus of opinion seemed to be that a penalty rate in relation to open market investments was possible, and it was held by some that it had been enforced; but there was general confusion between the discount rate and the buying rate on acceptances,⁷ and the buying rate was not normally a penalty rate in relation to the market rate on acceptances; nor was the rediscount rate on acceptances normally the standard. (See the discussion of acceptances in Chapter XVIII.) Even when the authorities raised the buying rate above the rediscount rate on acceptances, member banks frequently preferred to sell their bills, because they could thus economize on rediscounts with their reserve banks; but dealers and other sellers of bills had no such alternative. It has been pointed out that the difference between the Bank and market rate does not represent a profit even though the market rate is above that of the Bank; for allowances are to be made for expenses of carrying accounts and the

¹ Hearings: *Stabilization* (69: 2), 1926, II, 709.

² W. R. Burgess, "The Money Market in 1926," *Review of Economic Statistics*, 1927, p. 15.

³ P. M. Warburg, "Politics Menaces the Federal Reserve System," *Annalist*, 1923 (22), pp. 563, 579. Cf. Platt's remarks. Hearings: *Brokers' Loans* (70: 1), 1928, p. 83.

⁴ *C.F.Chr.*, 1919 (109), p. 1489.

⁵ Hearings: *Stabilization* (69: 2), 1926, II, 667. In 1931, he said that a 5 per cent rate was not restraining when the call rate was rising so rapidly. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 141.

⁶ *Ibid.*, p. 212.

⁷ *F.R.A.*, 1923, pp. 7-8.

like.¹ Bell goes so far as to say that lending at 6 per cent is not profitable when the Bank rate is 4 per cent.²

2. UNIFORM AND PENALTY RATES

That brings us to another phase of the question. In the early years of the System, authorities favored a system of numerous rates that were to be adjusted to maturities, types of paper, and, later, to war needs. The theory in support of varying rates was that banks would be encouraged to carry on a proper banking business, which would be reflected in the creation of desirable types of paper; that the reserve banks in acquiring such paper, would maintain themselves in a liquid condition; and also, that cash obtained by rediscounting paper would be used for the purpose for which the rediscounted paper had been drawn. But it was soon discovered that even when the use of the proceeds of paper was apparent, the reserve banks could not be certain of the *real* object of rediscounting the paper. This subject is discussed in a later chapter. Its significance at this juncture is that the enforcement of a penalty rate becomes especially difficult when the rate structure is complicated, for if the market rate on acceptances is 3 and the reserve bank rate is $3\frac{1}{2}$ per cent, and if the rate on acceptances is the lowest rate charged by the reserve bank, member banks may borrow on acceptances and use the proceeds to purchase investments or make advances that may yield 6 or 7 per cent. Hence the acceptance rate is not a penalty rate in any telling sense, except that traders may refrain from purchasing acceptances when the buying rate has increased. If large quantities of paper that may be rediscounted at preferential rates are available, member banks obtain cash from the reserve banks at rates that are low compared to the return on their investments.³ The important point is that in this manner member banks may obtain a large proportion of their accommodation from reserve banks, and yet these low-yielding investments may not constitute a large pro-

¹ E. A. Goldenweiser, *The Federal Reserve System in Operation*, pp. 49-50. Goldenweiser applies this analysis to banks in financial centers; for banks in country districts, he makes the doubtful point that they will not borrow to extend business because they hesitate to spoil the market.

² "Federal Reserve Board," *American Economic Review, Supplement*, March, 1930, pp. 109-110. Cf. Hearings: *Operation of Banking Systems* (71:3), 1931, p. 783.

³ Early in 1918, Governor Strong pointed out that member banks will borrow at the lowest rates obtainable. U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65:2), 1918, p. 154.

portion of all their investments — a condition which was peculiarly evident in 1919-20, when member banks borrowed largely on war paper, and in 1928-29, when they sold acceptances in vast quantities. Hence member banks might borrow at 4 on investments yielding 3 per cent and use the proceeds to lend at 7 — the Bank rate on the purchased assets might be 6 or 8 per cent — and therefore, the rate may be a penalty rate in relation to the return on the investment offered, but is scarcely a penalty rate in the light of ensuing transactions. Moreover, the member banks may find it profitable to hold supplies of the paper rediscountable at the low rates determined both by the requirements of liquidity and the possibility of rediscounts.¹

The tendency toward uniform rates between districts has been another obstacle to the introduction and maintenance of penalty rates. To obtain uniformity, it has been necessary to reduce rediscount rates in the West and South.² As a result of these reductions in rates, introduced in part to discourage advances from correspondents in the financial centers, Bank rates have remained considerably below the level of rates on commercial paper.³

3. REDISCOUNTING AT A PROFIT

During the early period of the development of the Federal Reserve System, accommodation rather than control was emphasized. Even in more recent years, the necessity of accommodating trade and industry has been given so much attention that adequate control has not been possible. (See the discussion in Chapter IV.) If reserve banks put resources on the money market, the member banks are to an important degree the medium; and the theory is that they are entitled to a profit on the transaction. The theory that member banks should rediscount at a profit is widely held, and of course rediscounting at a profit is not possible if penalty rates are enforced.

Now member banks are profit-making organizations, and the attitude of large numbers of banks is that they are entitled to a profit on the use of money borrowed from the reserve banks; and they find

¹ This subject is discussed more adequately in the conclusion to the first two chapters.

² Cf. Willis's interesting comments on the tendency toward uniformity. *Hearings: Brokers' Loans* (70: 1), 1928, pp. 21-22.

³ *Proceedings*, 1922, I, 125.

support for this attitude in the fact that they have contributed most of the resources of the reserve banks. On the other hand, Platt and Harding have pointed out that member banks are not justified in increasing their rates *pari passu* with increases in Bank rates. The former has contended that an increase in the Bank rate adds very little to the expenses of operation of member banks;¹ and the latter has argued that member banks are not justified in increasing rates to customers when the Bank rate is increased, for they operate mainly with their own resources, and hence the cost of lending is increased to a small degree by an increase in rates.² He also contended that members were not entitled to a profit on funds obtained from reserve banks: their practice of paying 5 per cent and lending at 8 per cent was severely criticized.³ The Board may have been of the opinion that if member banks increase their rates to the same extent that reserve banks increase the Bank rate, the enforcement of a penalty rate becomes impossible;⁴ but this is not the only possible explanation of the Board's concern over the increase in rates charged by member banks, for an increase in the charge to customers is one method of curbing excessive demands,⁵ and hence it might be argued that reserve officials would welcome an increase in

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 211. Farr estimates that member banks expended but 4.47 per cent of their total expenditures for interest and discounts on borrowed money in the years 1918-29, and that a reduction of reserve rates of $\frac{1}{2}$ of 1 per cent reduces costs to a very small extent. H. A. Farr, "The Paradox of Money Rates," *American Bankers' Association Journal*, February, 1931, p. 698. The chairman of the Richmond Bank inquired of its members whether they were justified in raising their rates in 1929 when they were borrowing 50 millions from the reserve bank and lending 1,100 millions. Richmond Reserve Bank, *Proceedings*, 1929, p. 25. At the same meeting Hamlin said that a pledge from member banks that they would not increase rates when reserve banks raise their rates would be most helpful; an infinitesimal increase in customer rates would compensate member banks for the increased cost of reserve credit. *Ibid.*, pp. 36-37.

² In a letter to the governors of reserve banks, the Board also pointed out that commercial rates need not be above Bank rates as Congressmen suppose; that with the creation of the reserve system, member banks have operated with less cash; and that banks usually give accommodation to customers at rates determined by market conditions and the value of the customer's account. *Mim.L.S.*, 1920 (12), X-1941, p. 480. Cf. Harding's telegram to the reserve banks of November 6, 1919. *Ibid.*, 1919 (11), X-1717, p. 855.

³ *Letter of W. P. G. Harding to Chairman of Banking and Currency Committee, U. S. Senate*, Relating to a Bill to Fix the Maximum Discount Rate of Federal Reserve Banks (December, 1920).

⁴ The Kansas City Reserve Bank made this point in a circular addressed to member banks. *C.F.Chr.*, 1920 (111), p. 138.

⁵ *Cf. B.M.*, 1920 (101), pp. 197-198.

the charge made by member banks.¹ A more likely explanation is that the officials were guided by the requirement that rates be set with a view to accommodating trade and industry, and they were being reminded of their responsibility by numerous attacks from Congressional quarters.² Both in 1919-20 and in 1928-29, the Federal reserve authorities found it expedient to attempt to control the amount of accommodation to member banks and the price charged, rather than to urge members to increase the charge to their customers or to urge customers to curtail their advances from member banks.³ Toward speculators the Board, however, took a different attitude.

In the period of liquidation in 1920-21, the authorities argued that a reduction of rates was unjustified because member banks would fail to pass the benefit on to their customers.⁴ This argument was more agreeable to politicians than the more valid point that liquidation had not gone far enough yet to justify further reductions

¹ Reserve banks are not in agreement on the question whether an increase in the Bank rate is reflected in a reduction of borrowing by member banks or not. Thus the officials of the Philadelphia Bank are of the opinion that a rate in excess of 5 per cent curbs demands while the representative of the New York Bank says that higher rates are reflected in the credit policies of members rather than in their rediscounts. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 774-777. It is relevant to point out that in periods in which reserve banks were increasing their rates, members generally increased their borrowing. This does not, however, prove that rediscounts would not have increased even more if rates had not been increased, nor that rediscounts would not have declined even more in periods in which Bank rates were declining.

² *Mim.L.S.*, 1920 (12), p. 83; *ibid.*, 1929 (31), pp. 122-123; *Mo. Rev. of N.Y.R.B.*, September, 1929.

³ In the first episode, officials were anxious to give the impression that they were not responsible for any increase in market rates, although Strong admitted that unnecessary loans might be curtailed. The tendency was also to contend that rates were determined by market conditions. Comptroller Williams, on the other hand, would refuse accommodation to banks charging in excess of a designated rate. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 20, 383, 507, 720-721.

In 1928-29, the reserve authorities were more disposed to admit that they were in part responsible for higher rates, but the Bank rate was not the most important tool. W. R. Burgess, "Money in 1928," *Review of Economic Statistics*, 1929, p. 19; O. M. W. Sprague and W. R. Burgess, "Money and Credit and Their Effects on Business," *Recent Economic Changes*, II, 704.

⁴ On the other hand, reserve banks, in replies to questions put by a Senate committee in 1931, held that higher prices for reserve credit were not generally passed on by member banks. Even the New York Bank suggested that 80 per cent of their banks charge 6 per cent consistently. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 769-774. It may also be noted at this point that changes in Bank rate seem to follow fluctuations in market rates. Letter of Governor Harding to Senator Sheppard, August 26, 1921. *C.F.Chr.*, 1921 (113), p. 1520; cf. *Addresses and Statements of W. P. G. Harding*, No. 17.

of rates. Once more, it is hardly a faith in penalty rates that explains the attitude of the reserve officials.

We may now turn our attention from customer rates to the problem of rates paid on bank deposits, which to some extent determine the return on bank investments. As regards this question, the Board assumed a similar attitude in 1918-20.¹ In 1918, the Board coerced the banks into reducing their rates on deposits, and in 1919-20 they postponed an increase in rates until they could extract a promise from bankers that they would not increase their rates on deposits. Harding feared that higher deposit rates — they had as a rule been automatically increased with increases in the Bank rate — would stimulate the undesirable use of bank funds. Changes in rates on deposits not justified by economic conditions might thus be averted. An effective rate in the eyes of reserve officials was not one that induced member banks to increase their rates, particularly the price paid for money by banks. It may be recalled that Keynes lays much emphasis on the relationship between Bank and deposit rates as a factor in central bank control.²

There is little doubt that the rather wide acceptance of the theory that member banks are entitled to a profit on funds obtained from reserve banks and advanced to customers, has been an obstacle in the administration of an effective discount policy.³ Glass and Owen, Chairmen respectively of the Banking and Currency Committees of the House and Senate in 1913, objected to higher rates both in 1919-20 and 1929 on the grounds that member banks would increase their rates in order to assure themselves of a profit on funds obtained from reserve banks.⁴ In 1929, Owen said that a member bank could not lend profitably at 6 if the reserve rate were 5 per cent.⁵ President Wilson had been concerned in 1915 because banks

¹ For a history of this controversy, see especially *F.R.B.*, 1918, pp. 161, 252-253; *F.R.A.*, 1918, p. 789; *ibid.*, 1919, p. 4; *Mim.L.S.*, 1920 (12), x-1784, p. 69; *ibid.*, x-1785, p. 69; *ibid.*, x-1789, p. 87; *C.F.Chr.*, 1920 (110), p. 124; Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 596-622. Warburg was aware that the dissolution of the tie between Bank rate and deposit rate was unfortunate. P. M. Warburg, *op. cit.*, I, 468-469.

² J. M. Keynes, *op. cit.*, II, 366-367.

³ According to Willis and Steiner, the accepted theory in recent years has been that member banks perform a duty in rediscounting and hence penalty rates are not justified. H. P. Willis and W. H. Steiner, *Federal Reserve Banking Practice*, p. 149.

⁴ *C.F.Chr.*, 1920 (110), pp. 813, 1932-1933; *Mim.L.S.*, 1919 (11), x-1718a, pp. 856-857.

⁵ *C.F.Chr.*, 1929 (128), p. 3443.

were not passing on to their customers the low rates charged by reserve banks.¹ At conferences of Federal reserve officials, several governors argued that a high rate was not practicable because member banks in many states could not legally charge in excess of 6 per cent.² One governor announced to a meeting of the bank's stockholders in 1929 (representatives of the member banks) that they were entitled to a profit of 1 per cent on money obtained from the reserve banks.³ The introduction of commodity rates in 1915 was an announcement that members were entitled to a profit of 2½ per cent on money obtained from the reserve banks. When the Board in 1921 suggested as a concession to politicians special rates for farmers, the theory of penalty rates was more in vogue and the Board then refused to sanction an alternative proposal by which they would tacitly approve a profit of 4 per cent on Federal reserve funds and would commit themselves to the principle that a borrowing bank is entitled to a profit in its rediscount operations.⁴ Officials of reserve banks were even more orthodox, finding the Board's proposal unacceptable on the grounds that member banks would obtain a profit of 2½ per cent and would not pass the benefit of low rates on to their customers.⁵

4. PENALTY RATES — CONCLUSION

Thus we have seen that penalty rates in relation to those on some types of open market investments have been enforced, but that the implications of penalty rates were not adequately understood until after the War.⁶ When once understood, the theory of penalty rates

¹ *C. F. Chr.* 1915 (101), p. 658.

² *Proceedings*, October, 1920, 1, 49; *ibid.*, 1922, 1, 140. The theory that member banks are entitled to a profit on funds obtained from reserve banks is carried to its logical conclusion in the provision in the Banking Bill of 1932 that allows member banks to charge rates in excess of those allowed by state laws and in excess of the Bank rate. It is well known that Glass introduced this proposal to prevent member banks from refusing accommodation when the Bank rate is at a high level. Thus the fate of penalty rates is assured. *S. 4412* (72: 1), Section 21 (April 18, 1932).

³ Dallas Reserve Bank, *Proceedings*, 1929, p. 42. In 1920, a governor of the same bank had informed the member banks that his bank preferred not to establish "rates higher than the rates of interest received by them from their borrowing customers." *Circular* of May 7. *C.F.Chr.*, 1920 (110), p. 2142.

⁴ *Mim.L.S.*, 1921 (15), X-3187, p. 923.

⁵ *Ibid.*, 1922 (17), X-3513, pp. 1064-1065.

⁶ The question has frequently been raised whether a penalty rate is at all possible if the probability of multiple expansion is considered. I refer the reader to Keynes' excellent discussion of the problem of multiple expansion. *J. M. Keynes, op. cit.*, II, 243-250.

in relation to the most important bank investments, namely, advances on customer lines-of-credit, was discarded, and an attempt was made to point out the analogy of our buying rate with the Bank of England rate; yet the buying rate has not normally been a penalty rate. Political pressure, the important place occupied by accommodation in our system, non-uniform and preferential rates in the same district and uniformity between districts, the acceptance of the theory of rediscounts at a profit — all of these have contributed to the decreasing regard given to penalty rates.¹

The object of a penalty rate is to make borrowing from the central bank unprofitable. When a bank can obtain 10 per cent on funds advanced on the stock market, and money advanced to brokers satisfies the requirements of liquidity as much as short term securities or other types of investments, a penalty rate may seem out of the question. A member bank weighs the return on additional investments in brokers' loans against the interest to be paid on advances from reserve banks. But in so far as the bank holds other investments yielding less than the rate charged by the reserve banks, the Bank rate is significant and may be effective in restraining demands on the reserve banks.

A bank will naturally obtain its funds in the cheapest possible manner. If a bank's reserves are depleted as a result of a loss of deposits, it will seek the cheapest method of obtaining additional cash. It may sell or fail to renew an investment if the yield is less than the cost of obtaining credit from the reserve bank; but the extent to which member banks can dispose of their investments is limited. They do not as a rule dispose of bankers' acceptances except to reserve banks; the requirements of liquidity may prevent the disposal of a large proportion of open market investments anywhere. Moreover, in periods of monetary stringency, long term investments generally depreciate, and the banks are therefore faced with the necessity of taking a loss. The large sales of investments by banks in 1929 are evidence, however, that sales of investments have been a popular method of obtaining cash in periods of strin-

¹ Reserve banks in general agree that penalty rates are not practicable in the United States. According to the officials of the New York Bank, a penalty rate has been enforced only twice in reserve history: these occasions were the early years when members were not borrowing and in 1920. The reserve banks tend to exaggerate the similarity of rate structure in the United States and Great Britain. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 782-785. Cf. *The Federal Reserve System*, Report of the Banking and Currency Committee, U. S. Chamber of Commerce, 1929, Auxiliary Statements, pp. 55-58, for a discussion of the failure to enforce penalty rates.

gency. If the market for any type of investment is largely concentrated in the banks, the possibility of large sales unaccompanied by a large measure of depreciation is slight. If the outside market is large, banks may thus reduce their investments and their deposits.

The bank may obtain the additional cash from the reserve bank. A member bank in disposing of its investments in order to obtain additional cash puts the burden on other banks, which in turn sell investments. In so far as the public purchases these investments, the banks obtain a measure of relief through a reduction of deposits, but of course the reduction in deposits for all banks will not solve the problem unless it is approximately ten times the deficiency of cash. (The assumption is that reserves of 10 per cent are required against deposits.) The process of passing the responsibility on to other banks will cease as soon as *any* bank or banks — possibly in an under-loaned condition as regards the reserve banks, or perhaps inadequately supplied with open market investments — borrows the necessary cash from the reserve banks.

It is possible to argue that if the member bank is to obtain the cash *needed to cover its reserve requirements* from the reserve bank, it may incur a loss, selling an investment to the reserve bank that yields 2 per cent and paying 3 per cent for the money thus obtained rather than 6 by rediscounting or borrowing on paper yielding 7 per cent. The assumption is that having once acquired its earning assets, the bank will borrow at the lowest rate. On the other hand, member banks will determine within limits the volume of assets of different types to be purchased according to whether a penalty rate is in vogue or not on each type of asset. They will purchase assets which they can dispose of profitably to the reserve banks in so far as they can estimate their needs.

The penalty rate is thus ineffective except as member banks will decline to purchase acceptances with a view to selling to reserve banks in the future unless the market rate increases at least to the reserve bank rate.¹ As the market rate rises, acceptances in

¹ The Joint Commission of Agricultural Inquiry commented on the large reduction of bills in the portfolio of member banks collateralized by Government securities that followed upon the increase of rates on paper so secured. Undoubtedly, the large holdings of such paper are to be related to an important degree to preferential rates on Government securities previously in force; but on the other hand, both the depreciation of such Government securities and the reduction of holdings by member banks are not by any means to be attributed exclusively to the change of discount policy on the part of the reserve bank, as the Commission seems to hold. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 47-50.

smaller volume will be drawn, and in this sense the rate will be effective. Also, it is indifferent whether the banks or other holders sell acceptances to the reserve banks or the market: they will suffer losses on their holdings if rates rise.

In so far as the banks have an opportunity to consider the possibility of borrowing from reserve banks and providing for that contingency, they are unlikely to accept a loss in borrowing: rather they will tend to purchase investments that can be disposed of to the reserve banks under the most favorable conditions. Investment policy will of course not be determined solely by this consideration; but the member bank is apt to invest more adequately in assets that satisfy this requirement, that is to say, assets that yield the highest return as against the rate charged by the reserve bank on advances or rediscounts of the paper or investment under consideration. Thus the penalty rate becomes more potent as the money market is able to adjust itself; and it is hardly accurate to contend, as Governor Strong and others have, that members borrow at the lowest rate.¹ They borrow at the most profitable rate, which may be the lowest and also the only penalty rate; but in the long run, member banks will avert penalty rates whenever possible by making the necessary adjustments in their investments and by borrowing on investments that yield more than the rate charged by the reserve banks.

It is to be emphasized that relative rates are not the sole consideration. A penalty rate for customer loans yielding from 6 to 10 per cent or for Street loans yielding from 6 to 12 per cent is out of the question. The bank is faced with a loss of reserves; it may sell an acceptance yielding $2\frac{1}{2}$ per cent to the reserve bank at a rate of 3; it may dispose of Treasury bills yielding 3, or long term investments yielding 4 per cent, or rediscount at 5 per cent. That banks hold investments yielding from $2\frac{1}{2}$ to 4 per cent, is evidence that liquidity amounts to an important factor. They will not necessarily obtain money at the lowest rate; and they will continue to obtain additional cash by rediscounts or sales of acceptances to reserve banks, or sales of investments with a view to increasing investments on the call

¹ In commenting on the suggestion that members borrowing on Government securities be forced to pay a discriminatory rate in order to check speculation, reserve authorities have maintained that banks would borrow on other assets and that they would dispose of Government securities. The authorities of the San Francisco Bank pointed out that the profit on the use of funds obtained from reserve banks is not determined by the return on the asset offered to the reserve bank. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 779-782.

money market, until other considerations — pressure from the reserve bank, the requirements of liquidity, and the like — put a stop to this movement.

One may inquire why the New York Reserve Bank continued to emphasize the Bank rate in 1929, and why both the Board and the reserve banks continued to rely on discount policy in 1928. Penalty rates had been found impossible of enforcement; reserve banks had not been able or disposed to influence the volume of member-bank lending or, as we shall see later, to determine the balances of member banks; they denied any influence over rates charged by member banks to their customers and had insisted that member banks were not justified in increasing their charges to their customers when reserve banks raised their rates. Moreover, responsible officials had publicly announced that the relation between Bank rate and market rates was not close, and that the reserve banks could control the situation by influencing the volume of member-bank indebtedness, for the correlation between that variable and market rates was remarkably high. The emergence of this theory constituted in part a covert repudiation of the theory that reserve banks do not control or desire to control rates charged by member banks.

The attempts to check expansion in 1928-29 by the use of the Bank rate may be attributed to a recognition of the excessive faith placed in member-bank indebtedness — dear money doctrine — as well as an admission that reserve banks can influence market rates and that they were anxious to exercise such control then. Higher rates for money during this period were quite generally associated with reserve policy. In 1929, the New York Reserve Bank at first relied on the argument of the reduction of reserves in support of its dear money policy, but an embarrassing influx of gold soon changed its attitude: higher rates were necessary to check speculation which had brought higher money rates to industry. In spite of repeated denials in the past of any control over the volume of earning assets of member banks, the object of the introduction of higher rates in 1928-29 must have been a reduction of the loans and investments of member banks and, in particular, loans of a speculative nature. In 1929, the New York Bank was intent upon raising market rates and reducing the demands on banks through an increase in the Bank rate while the Board would control the amount of money flowing into speculative channels, thus influencing the demand for member banks' credit from unapproved sources.

Control has been along unorthodox lines in the United States. Keynes points out that penalty rates have not been enforced in the United States along English lines, as has been contended by reserve officials. The gist of his argument is that the reserve authorities unjustifiedly make the analogy of the penalty rate on bills in Great Britain with the relative rates of the reserve banks and the market on acceptances. Keynes' point is that the large holdings of acceptances by reserve banks are adequate evidence that the buying rate rather than the rediscount rate is the standard, and that the former is not a penalty rate.¹ Perhaps he does not allow adequately for the fact that when control is jeopardized reserve banks are prepared to sacrifice the acceptance market and raise the buying rate above the market level. He also contends that the authorities in the United States have never adequately understood the importance of a normal state of freedom of indebtedness to the central bank.² In a sense this is the crux of the whole matter.

Member banks have been indebted to the reserve banks from a low figure of approximately 100 millions to amounts in excess of a billion dollars, and the normal volume may be assumed to be about 500 millions; frequently, the volume of indebtedness has been appreciably above this level and sometimes it is appreciably below. If the normal level of rediscounts is so high, penalty rates seem out of the question. Member banks would not remain in debt for such large amounts unless it were profitable to do so, and this statement has a large element of truth even if it is conceded that a large proportion of all borrowing, particularly in the financial centers, is for a brief period, in order to give the banks an opportunity to adjust their position in some other manner. The volume of assets held by the reserve bank at its own initiative is a relevant consideration, for member banks can thus obtain large amounts of Bank money without incurring any costs, and purchases of open market investments by reserve banks put additional and costless resources at the disposal of the money market. That is to say, a member bank may obtain its credit by rediscounting or as a result of purchases of securities or acceptances by the reserve banks. Thus,

¹ J. M. Keynes, *op. cit.*, II, especially pp. 234-239. Reserve authorities have not always been unaware of the greater significance of the buying rate. *Mo. Rev. of N.Y.R.B.*, June, 1922.

² Numerous authorities were aware of the dangers of continuous operation. P. M. Warburg, *op. cit.*, I, 701.

member banks are penalized in so far as they have to substitute rediscounts for securities in the portfolios of the reserve banks. Any charge by the reserve bank is in excess of what was charged when the market was being financed by an equivalent amount of credit provided on its initiative, and in that sense an increase of indebtedness is a restraining influence. There is so much truth in the member-bank indebtedness-market rate doctrine.

Keynes assumes that the central bank can control the market rate as well as it can the volume of bank money, which is roughly equal to the total volume of money. He goes even further in contending that the suggestion of the possibility of a change in the amount of bank money may frequently be a potent weapon of control: for member banks cannot count on the continued state of monetary ease or of large holdings of assets by the central bank. In the United States, control of the volume of reserves has been out of the question. Keynes suggests two possible reasons, namely, the right of banks to rediscount as they are deprived of money through open market operations, and the absence of penalty rates. I am inclined to the opinion that conditions are not fundamentally different in Great Britain. Gold and currency movements have been on a smaller scale in Great Britain than in the United States until the last year or two, with the result that it has been possible to maintain bankers' deposits at a relatively stable level, and the relatively greater importance of the financing of foreign trade through bills has made possible a somewhat greater elasticity in bank reserves in Great Britain. Failure to maintain greater stability in bankers' cash in the United States may be related to the large movements in gold and currency; but the elasticity contributed by movements from demand to time deposits has been a deterrent to even larger movements. The possibility of depriving the banks of so little as 20 per cent of their cash is as remote in Great Britain as in the United States. Since the above was written, the writer has been confronted with the unusual reduction of bankers' balances in 1931-32; but the liquidation in the United States in 1931 to 1933 is a phenomenon unparalleled in our banking history. In any event, it has not been imposed by the central bank. Central banks must provide the necessary supplies of notes for the public and reserves for banks.

Keynes' comments on the unprecedented reduction in the volume of earning assets of the reserve banks in 1920-21 and the high level

reached in 1920, do not constitute an adequate criticism of the reserve system, nor is the rate policy the significant factor in American development.¹ In the war and early post-war period the Bank of England made possible an expansion which was greater than the banking expansion in the United States. That it was effected in large part by advances to the Treasury rather than by rediscounts, as in the United States, is to be interpreted as evidence that the Bank of England's policy was less restraining than the American policy, for most of the credit put at the disposal of the London money market was costly to the Treasury rather than to the money market. The Bank of England was aided by the introduction of a currency limitation in 1919; but, in general, expansion was carried to the limit set by the volume of the Bank of England's reserves: unlimited expansion could not be justified even if the country were on an inconvertible standard.

For Great Britain a reduction of proportions similar to that effected in the earning assets of reserve banks in 1920-21 was in Keynes' opinion unthinkable. But he neglects the fact that this reduction was the result of an unparalleled influx of gold and currency notes. The reduction of bankers' reserves was probably smaller in the United States than in Great Britain. If there had been similar movements of currency and gold in England, the assets of the Bank of England would have suffered similar fluctuations; and if the influx of gold had been of similar proportions in 1921-27, the Bank of England would have been unable to control the volume of bankers' cash. Yet Keynes requires of central banks that they offset such movements whenever economic policy requires stability in bankers' reserves.

¹ J. M. Keynes, *op. cit.*, II, 239.

CHAPTER III

EFFECTIVENESS OF BANK RATES

I. INTRODUCTION

WE CANNOT adequately discuss the theory of discount policy until we know what its objective is; but unfortunately that brings us back to the whole question of the influence, and its scope, of the reserve banks. For purposes of exposition, nevertheless, it seems advisable to continue with a discussion of discount policy in this chapter, reserving the fundamental matter of objectives for the next. That subject is related to other problems discussed in this study, although it is most pertinent to the discussion of discount rates. In addition to the comment in the next section, it is adequate to point out at this juncture that, in the early years, the important contribution of the reserve banks was held to be their creation of additional resources for the use of the money market, resources which were to depress and stabilize money rates. In more recent years, accommodation has not been given so much attention as has control; but the objective, when control has received more attention, has frequently remained the same. Stabilizing influence is still an important goal; but it has been realized more clearly than in the years 1914-20 that stability involves restraint as well as expansion, and more attention has been paid to the *use* of the resources of reserve banks. Moreover, the theory of continuous operation, much in favor in the early years, has been supplanted to some extent by a theory of seasonal and emergency operation. Again, authorities now use various measures to gauge the legitimate demand for credit. But more will be said on this subject in the next chapter.

2. OBJECTIVES

Let us assume temporarily that the objective of the reserve banks has been no different from that of the Bank of England or the Reichsbank. In recent years, the Bank of England has been interested to some extent in stability in addition to its usual interest in its reserve. In so far as central banks have become more concerned

with stability, the reserve banks are merely keeping in step. We shall see that in contrast to the normal experiences of European central banks, the protection of reserves has occupied a relatively unimportant place in the discount policy of the reserve banks, and hence other objectives and measures have become of greater importance in our system.¹

The protection of reserves has ever been the most important concern of central banks. A governor of the Bank of England once courageously told a Parliamentary committee that he would assure the solvency of the Bank — that is, maintain payments — at the expense of the insolvency of the Bank's customers. In the United States, there are special reasons why protection of reserves should be an important object of central bank control, for member banks are compelled to hold their reserves with the reserve banks. Under the peculiar conditions of the last fifteen years, however, abnormally large supplies of gold have been shipped to the United States, with a result that reserve officials have been given little guidance by the fluctuations of their reserves for the formulation of discount policy. The only important exceptions have been the years 1919-20 and 1931-32. It can be maintained that the high level of reserves has frequently been a source of annoyance, for authorities have not easily justified increases in rates when reserves were large and more significant symptoms clearly pointed to the necessity of restraint. Thus are explained the many attempts to disguise the genuine reserve position, and to build up a tradition of surplus reserves, about which more will be said in a later discussion on reserves and gold.²

In practice as well as theory, we have advanced beyond the objective of the protection of reserves, which, however, still remains a consideration. Central banks are increasingly concerned with the cash balances of members, and it is through their control of reserve, money, or balances of members, that they hope to exercise control over the money market. Yet American experience so far has not

¹ In 1919-20, the reduction of reserves was fortunate, for restrictive measures were more easily justified. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 716. "It was the expansion of the loan account in which we were interested and toward which we direct our rate. And certainly if experience justifies any action, experience justified an advanced rate at a time when this whole Federal Reserve System was right down to the minimum reserve, but at the same time not hesitating to lend where it could be shown that lending was needed."

² Governor Seay said in 1926 that if reserves declined to a point in the vicinity of 60 per cent, that would be an indication of an over-expanded condition. Richmond Reserve Bank, *Proceedings*, 1926, p. 29.

justified any strong faith in the ability of central banks to control the amount of bank cash. The emphasis here has been laid on earning assets of the reserve banks, although fluctuations in their magnitude are not necessarily reflected in corresponding fluctuations in the bank reserves of member banks. At an early stage it became apparent that changes in the discount rate had relatively unimportant effects on the volume of rediscounts of member banks, and that open market operations were followed by inverse movements in the total of member-bank indebtedness or of rediscounts and acceptances held by reserve banks. But authorities have found consolation in the discovery of a relationship between member-bank indebtedness and market rates.¹ The theory is that rates are determined not by the magnitude of earning assets, but by the distribution between rediscounts on the one hand and open market purchases on the other. Member banks repay debts as soon as possible, thus withdrawing funds from the open market rather than remaining in debt. It has not been made clear in what manner rates are increased unless debts of members, and hence earning assets, of the reserve banks are reduced; and therefore, it is not wholly a question of the distribution of assets of the reserve banks. Perhaps the explanation is that increased indebtedness is followed by a reduction of cash invested in the open market by members, and thus a reduction of reserves of member banks and earning assets of reserve banks is made possible: the truth is that reserve credit is more costly to member banks when reserve banks substitute rediscounts for other earning assets; but we have seen that the additional cost is spread very thin over all member-bank credit outstanding. This subject, however, is discussed more fully in the discussion of member-bank indebtedness, member-bank balances, and open market operations. Its relevancy here is simply that Bank rates do not determine the extent to which member banks borrow, and it has been observed that reserve officials have frowned on attempts of member banks to pass on the additional cost of reserve credit to

¹ "The functioning of reserve banks in the money markets must, therefore, be considered from the point of view of the theory that changes in the volume of member bank borrowing exert a more important influence on rates than do changes in discount rates." W. W. Riefler, *op. cit.*, p. 25. He adds that customer rates seem to fluctuate on a national scale with fluctuations in open market rates and to reflect changes in the aggregate national volume of borrowing at reserve banks and possibly changes in discount rates. Thus he accounts for the effectiveness of open market operations and the passive discount policy. *Ibid.*, pp. 27-28, 71.

their customers. We shall see that reserve officials have generally taken the position that they adjust their rates to market rates,¹ that commercial rates are not determined by them, and that there is little correlation between fluctuations in Bank rates and market rates. Perhaps in the last few years, they have been more willing to admit that fluctuations in Bank rates have influenced market rates and in turn have thus influenced the volume of member-bank credit.² But of course the influence is not exercised through any significant curtailment of demand for reserve credit.

Even if discount policy were effective in reducing the amount of borrowing from reserve banks and the total of their earning assets, the result would not by any means necessarily be a control of member banks' lending policies. Gold movements, currency movements, changes in reserve requirements, a moderate amount of elasticity in the holdings of till money, have largely determined the magnitude of balances of member banks. Reserves of member banks are not so fully employed as they generally are considered to be, if we allow for the possibilities of large transfers from demand to time deposits, and economies in till money such as were introduced in 1928.

3. RELATIONS TO MEMBER BANKS

It has often been contended that so long as member banks are not in debt to the reserve banks, the latter cannot exercise any control.³ True, freedom of indebtedness was an obstacle for the reserve banks in the early years of the System, for a rate that is not used cannot be effective. Because by selling securities they could compel member banks to borrow and thus make their rates effective, reserve

¹ Market rates seem to lead on the large movements. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 768.

² *Ibid.*, pp. 56-57, 69, 73-74; W. R. Burgess, "Guides to Bank of Issue Policy," *Proceedings of the Academy of Political Science*, 1930 (13), p. 512; O. M. W. Sprague and W. R. Burgess, "Money and Credit and Their Effect on Business," *Recent Economic Changes*, 11, 704.

Mitchell is inclined to minimize the influence of the reserve bank on money rates on the grounds that the reserve banks contribute a relatively small volume of resources. "Federal Reserve Board," *American Economic Review, Supplement*, March, 1930, p. 112. Keynes argues that the reserve banks contribute too much, but he would have increased control over rates with smaller operation by central banks in normal times. Of course the crux of the matter is not the relative amount of business carried on by the central bank.

³ Thus see the remarks of Chairman Rich on this subject. J. H. Rich, "Expansion and Contraction from the Federal Reserve Standpoint," *Annals*, 1922 (99), pp. 174-183.

banks have put much faith in their open market operations. In recent years, however, the test of effectiveness has been held to be, not the rate paid, but merely the fact of payment of any rate; that is to say, emphasis has shifted to the magnitude of member-bank indebtedness.

Regarding this problem, larger issues have been raised. Reserve banks have the authority and responsibility to examine member banks. Many reserve officials have therefore been concerned with the need of controlling member banks that fail to borrow, particularly since many banks that later become insolvent, not indebted to the reserve banks, are not subject to the restraining influence of an effective rate. Hence Federal reserve authorities, particularly those associated with banks outside the financial centers, have contended, for this reason and others, that an effective discount rate was not the solution of the problem and that minute inspection and examination of member banks was necessary. Their conception of an effective rate was one that prevented member banks from undertaking unsound operations, and a rate high enough to achieve that end was not considered practicable. Strong and others, on the other hand, were satisfied with a rate that was reasonably restraining in relation to all member-bank credit outstanding.¹ The reserve banks could not deal with the problem of individual banks.²

Strong argued that the discount rate affects the total borrowing of individual banks, and possibly the total credit outstanding.³ In the last few years the problem has arisen again, and the Board has justified its policy of treating with individual banks on grounds of banking policy; that is, it is held that the condition of the member bank is improved by the application of pressure on the part of the reserve bank; but the Board has admitted that the general banking situation can only be affected by tools of credit policy, namely, discount rates and open market operations. The Board is aware that when one member bank is compelled to repay the reserve bank and liquidate its indebtedness, another member bank is forced to borrow.⁴ Thus the Board, in its application of the policy of moral suasion, learned by experience what Governor Strong had preached many years ago. His opponent, Perrin, on the other hand, had contended that pressure on individual banks would solve both the

¹ Cf. especially *Proceedings*, October, 1922, I, 63-67, 85-89, 175-179.

² This subject is discussed more fully in Part III.

³ *Proceedings*, October, 1922, I, p. 173.

⁴ *F.R.A.*, 1928, p. 9.

problem of the individual bank and the general situation. In the latter's opinion, the mistake of 1919 was the failure to depend on moral suasion exclusively.¹

But on another important question the opinions expressed by Strong and the New York Bank in the early post-war period have not been accepted in recent years by those who have determined Federal reserve policy. The New York Bank was then faced with the problem of the excessive use of reserve credit for speculative purposes, and it proposed an increase in the discount rate to curb this evil. It did not depend exclusively on higher rates, but its position was that higher rates would check both the use of credit and, in particular, the speculative uses.² Glass, Owen, and others quickly sensed the danger of a policy of high rates, and it was the view presented by them in 1919-20 that gained ascendancy in 1928-29.³ But higher rates, they held, aimed to curb speculative uses cannot be justified in the light of the provision in the law that rates be set with a view to accommodating commerce.

There is one other aspect of the contest between reserve bank officials in financial centers and the others that deserves a moment's attention. The difference of opinion concerning the importance of discount rates hinges in part on the relative importance of open markets in the two classes of districts.⁴ Where open markets are

¹ *Proceedings*, October, 1922, I, 213; *ibid.*, II, 276-277. Compare Morss's views, *ibid.*, p. 280.

² *C.F.Chr.*, 1919 (109), pp. 1749-1750. The New York Bank went even further in demanding that member banks should use cash received for Treasury certificates and in repayment of loans secured by Liberty bonds, to repay reserve banks. Apparently the New York Bank was not aware that other banks would thus be forced to borrow. *Ibid.*, p. 2122.

Governor Harding in 1921 and Dr. Miller in 1931 expressed doubt concerning the possibility of curbing speculation by the enforcement of rates short of destructive rates. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 363; Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 150.

³ In spite of the fact that he approved the increase in rates voted in November, 1919, Glass made a strong appeal for the use of other methods. "We cannot trust copy-book texts. Making credit more expensive will not suffice." *Mim.L.S.*, 1919 (11), x-1718a, pp. 856-858. Also see the interesting memorandum of October, 1920, addressed to the Board by the United States Chamber of Commerce in which the writer contended that other methods of control should have been used; and he estimated the losses suffered as a result of the introduction of higher rates. *Ibid.*, 1920 (13), x-2024a, pp. 917-932.

⁴ Thus Jay argued that in larger centers, movements in relation to the open market generally influence the total volume of credit and through the open market, Federal reserve credit policy, whether exerted by rate or otherwise, is going to become effective. *Proceedings*, October, 1922, I, 110.

not of great importance, movements in Bank rates are not likely to be effective, because member banks are unable to reduce their investments. Where member-bank investments are primarily in line-of-credit loans, the situation is relatively inelastic.¹ But this point has sometimes been overstressed, for most banks, with the possible exception of small country banks, hold large portfolios of open market investments that can be sold in moderate quantities within a reasonable period.

4. CHANGING ATTITUDE TOWARD THE USE OF THE BANK RATE

In addressing the agents and governors of the reserve banks in 1921, Governor Harding said: "Control over discount rates, as exercised by the Federal reserve banks and the Federal Reserve Board, is one of the most important and far-reaching powers ever delegated by Congress to another instrumentality. The grant ranks with the power given the Interstate Commerce Commission to regulate rates."² That the Board was in earnest in its attitude toward discount rates is evident from the instructions given to the Federal Reserve Agents at the inception of the system. These representatives of the Board were to devote their reports to the Board almost exclusively to a discussion of discount policy.³ In 1914 the Board's counsel had ruled that the only limitations on the use of discount rates was that they be set with a view to accommodating commerce and be enforced without discrimination.⁴

But the results have been disappointing. When the problem of exercising control first arose in the latter part of the War, several reserve banks were optimistic concerning their ability to enforce liquidation by the introduction of a courageous discount policy.⁵ In 1917 the Federal Advisory Council recommended the introduc-

¹ Sprague has expressed this view well. He has also pointed out that a large proportion of our banks have most of their assets invested locally. *Proceedings*, November, 1925, pp. 72-74.

² *Addresses and Statements of W. P. G. Harding*, No. 17.

³ *F.R.B.*, 1915, p. 13. Informal Ruling of the Board of March 18, 1915.

⁴ *Ibid.*, pp. 97-98. Counsel had also expressed the opinion that Congress could delegate the authority to fix discount rates to the Board and reserve banks, and that these rates might be in excess of the statutory rates fixed by the states in which reserve banks are located. *Ibid.*, p. 24.

⁵ *Boston R. B. Ann.*, 1918, p. 19; *ibid.*, 1919, pp. 28-29; *Atlanta R. B. Ann.*, 1917, p. 420.

tion of high rates to curb unwarranted expansion for relatively long periods.¹ But as early as 1919, the authorities began to waver in their faith in control through increases in rates.

By 1919-20, authorities were relying on the discount rate to a much greater extent than in the speculative era of 1927-29, but we shall observe that they did not rely exclusively on the discount rate in the former period. In July, 1918, the Board commented as follows on the results of a conference with the governors: "At the Conference the view was generally expressed by the governors that they could control any excessive rediscounts by any member bank by informing the applying bank that it had reached its limit; by requiring additional collateral; or with respect to 15-day borrowings, by availing themselves of the authority given them by the Board to raise the interest rate in case of renewals." The Board added on its own responsibility: "The adoption of the policy will give the Federal reserve banks an opportunity to demonstrate that credit may be restricted without resorting to higher discount rates as a means of compulsion."² And in a note to each reserve bank: "It would be much better to hold credit within reasonable limits by intelligent cooperation, rather than to attempt to force contraction by establishing high discount rates."³

At the March, 1919, Conference, Governor Harding took a firm position in threatening to protect reserves by raising rates and in requesting the Treasury to adjust its rate policy to the needs of the reserve system.⁴ Curiously enough, Governor Strong at this time disagreed with Harding and contended that the object of an increase in the discount rate was to reduce prices; but a reduction of prices was considered unnecessary in the light of the depreciation of the European exchanges.⁵ Perhaps Governor Strong at this time was more sympathetic than the Board with the requirements of Treasury finance.

But when inflation had made much headway and decisive action was required, the Board lost its courage. In October, 1919, the Board announced: "It seems doubtful, however, whether for a long time to come and taking the country as a whole, there will be any such close connection of Federal reserve bank rate with the volume

¹ *F.R.A.*, 1918, p. 843. Apparently, the Board had seriously considered a proposal made by Dr. Miller in June, 1918, that rates be increased in order to force member banks to liquidate part of their non-essential loans. *Mim.L.S.*, 1918, X-1035.

² *Ibid.*, X-1057 (not bound).

³ *Ibid.*, X-1049.

⁴ *Proceedings*, March, 1919, pp. 98-99.

⁵ *Ibid.*, pp. 159-161.

of credit in use as was to be noted, for example, in pre-war days in England, the home of central banking." The Board added that higher rates that would not have injured legitimate business would have had little effect.¹ In their Conference of October, 1919, the Federal Reserve Agents expressed a mild approval of an increase in rates, but emphasized the need of curtailing credit for speculative uses.² In January, 1920, Governor Harding again expressed doubt concerning the effectiveness of discount rates. He pointed out that an increase in rates would not attract gold, and might increase the cost of production of those who received a small margin of profit.³ This vacillation was evident in a costly failure to raise the rate on commercial paper in the latter part of 1919 and the early months of 1920.⁴ In its *Annual Report* for 1919, which was published in March, 1920, the Board seemed to be somewhat more reconciled to a vigorous discount policy. Although less hampered by the exigencies of Treasury finance, it even now expressed the fear that policies could not be normally effective until Government securities were distributed among investors.⁵ Expressions of policy cited above lead me to the conclusion that the Treasury was not wholly responsible for the inadequate use made of the discount power from March, 1919, to March, 1920. Federal reserve officials have admitted as much in more recent days.⁶

By April, a more favorable attitude toward the use of the discount rate was evident in the comments of the Board on the recommendations of the governors. "All agreed that the increase of rates coupled with the moral suasion employed by all Federal reserve banks had acted as a restraint upon expansion, which undoubtedly would have been great but for this restraint."⁷ Governor Harding, in his reply to Senator Owen's protest at higher rates, conceded that other instruments of control were to be used, but concluded "that the application of a rate is a vital factor in credit control."⁸ A diminution of the rate of increase of earning assets was hailed by the Board in July as evidence of an effective discount policy.⁹

¹ *F.R.B.*, 1919, p. 911.

² *Mim.L.S.*, 1919 (11), X-1719a, pp. 869-870; *F.R.B.*, 1919, p. 1017.

³ *Mim.L.S.*, 1920 (12), X-1789, p. 83. (Address before the bankers assembled in Washington, January 6, 1920.) *C.F.Chr.*, 1920 (110), p. 124.

⁴ *F.R.A.*, 1919, p. 4.

⁵ *F.R.B.*, 1920, pp. 214, 241.

⁶ Thus, see Miller's comments on the mistake of 1919. *Proceedings*, November, 1924, pp. 255-256.

⁷ *Mim.L.S.*, 1920 (12), X-1906, p. 489.

⁸ *C.F.Chr.*, 1920 (110), p. 1934.

⁹ *F.R.B.*, 1920, p. 665.

From the latter part of 1919, the New York Reserve Bank was more specific in declaring its intention of bringing member-bank credit under control by introducing higher rates and in preventing the substitution of other forms of credit for the credit released by the disposal by the banks of Government securities. The New York Bank thus hoped to compel a reversion to the policy of emergency or occasional borrowing from reserve banks.¹

Although the Board revealed a more favorable attitude toward increases in discount rates in the early part of 1920, it nevertheless was not completely won over; and it is improbable that a majority of reserve bank officials were in favor of drastic increases.² That four banks relied on progressive rates, and most of the remaining preferred moral suasion to a 7 per cent rate, is adequate testimony that majority opinion was in favor of attacking the problem by penalizing member banks borrowing excessively or banks that were indulging in unsound practices. The deliberations in the conferences of 1920 and 1922 also reveal, on the whole, a sentiment against high discount rates.

Beginning in 1921, the tendency to rely less on discount rates became increasingly apparent. The experience of 1920 had taught officials, moreover, that a discount rate that was effective, or held to be effective by politicians, was at best a dangerous tool. Undoubtedly, the attitude of politicians accounted in large part for this increased hesitancy in using the discount weapon, as well as for a tendency to minimize the effectiveness of rates. But we have also seen that there are important economic explanations for the ineffectiveness of discount policies. In a period of liquidation, the ineffectiveness of discount policy is especially evident. Perrin said that lower rates could not possibly have retarded liquidation, and Dr. Miller observed in 1922 that no rate could be low enough to be dangerous.³ At this time the theory that reserve banks merely set rates determined by conditions on the money market, and do not influence market rates, became increasingly popular.⁴

At the October, 1921, Conference of Chairmen and Governors, Dr. Miller stated: "I am not sure that we would err egregiously in

¹ *C.F.Chr.*, 1919 (109), pp. 1749-1750, 2122; *ibid.*, 1920 (110), pp. 1486-1487.

² U. S. Senate Document No. 310 (67: 4), 1923, especially pp. 5, 9, 18-21, 28, 35, 37.

³ *Proceedings*, October, 1922, I, 204-206.

⁴ This point is discussed more fully in the next chapter. Also see G. E. Roberts, "The Future of Interest Rates," *Acc. Bull.*, November, 1920, pp. 3-4; *C.F.Chr.*, 1921 (113), p. 1003 (Letter of Secretary Mellon to Senator Sheppard).

the administration of the Federal reserve banks if we overlooked the fact that the Federal Reserve System in our country occupies a much more intimate relationship to industry than the Bank of England does, for instance, to business and industry in that country." Our constant study should be to see "how low we can safely go in establishing rates without inviting dangers of unhealthful developments in business and industry."¹

In the widely heralded 1923 Report, the Board clearly stated its position: "The outlook for Federal reserve credit regulation would indeed be unpromising, in view of the great disparity of customer rates at member banks in different sections of the country, if the reserve banks had no other means than discount rates by which to regulate the volume of their credit used and this discount rate could exert no effective influence unless it were a penalty rate."² The Board, however, admitted farther on "that there is a sufficiently close connection between changes in Federal reserve bank rates and changes in rates charged their customers by member banks on a sufficiently large volume of customer borrowings to make Federal reserve rates an important and at times a leading influence in money centers."³ In 1925, the Board modified this concession somewhat: "At the reserve banks located in the larger markets member banks use a relatively large proportion of their funds in loans on securities and in the purchase of commercial paper or acceptances, all of which carry rates fixed in the open market and subject to relatively wide and rapid changes. At reserve banks in such districts the discount rate is more effective in influencing the demand for reserve bank credit than at reserve banks in districts where the bulk of member bank funds is used in making loans to regular customers at rates that respond but slowly to changes in the general credit situation."⁴

Thus we can see that the change of attitude apparent in the early part of 1920 was not adhered to for long. It is generally known that the Board opposed a vigorous rate policy in 1929. I discuss the stock market episode later. At this point, I should like to point out that although the New York Bank urged higher rates in 1929, its attitude in some respects was not fundamentally different from the Board's, for it also was anxious that money rates should not be increased for industry by means of a higher Bank rate, and it expressed

¹ *Mim.L.S.*, 1922 (16), x-3400, pp. 564-565.

² *F.R.A.*, 1923, p. 9.

³ *Ibid.*, p. 10.

⁴ *Ibid.*, 1925, p. 17.

no great anxiety to curtail the quantity of bank credit.¹ But on the whole, the New York Bank was prepared to urge a drastic rate policy. A comparison of the testimony of Governor Harrison of the New York Bank and Hamlin of the Board reveals clearly the differences in attitude. Also, there is evidence for the conclusion that the Board was not sympathetic with a vigorous rate policy in 1928. That point is significant because representatives of the Board have contended that a drastic increase would have been acceptable in 1928; they objected to an increase in 1929 on the grounds that the objective could not be attained.² Thus in an article in the *London Statist* (June, 1928), Dr. Miller, who later objected to higher rates, wrote that when the reserve banks have modified their rates, they have generally acted in recognition of an existing situation.³ At the hearings on *Brokers' Loans* in 1928, Dr. Sprague (not an official but an expert in the employ of the System at one time) said that an increase in discount rates would not reduce the amount of credit, for gold and balances would be attracted from abroad;⁴ and Governor Young declared that increases in the discount rates would not raise market rates.⁵

In this long struggle over the proper place of discount policy in our System, even the valiant defenders, Strong and his supporters, weakened. In fact, Strong approved and fought for an adequate open market policy, because it was a means of attaining an objective which, if it were attained by the use of the Bank rate, would be accompanied by undesirable disturbances. Here and there another supporter of the adequate use of the discount rate appears.⁶

¹ *N.Y.R.B. Ann.*, 1928, pp. 16-17. Hearings: *Operation of Banking Systems* (71: 3), 1931. See especially the evidence of Governor Harrison (pp. 55-58), of C. Mitchell, director of the New York Bank (especially pp. 287-290, 310), of Hamlin of the Federal Reserve Board (especially pp. 171-174), and of Dr. Miller (pp. 141-150). Officials of the New York Bank were concerned over the increased supplies of money diverted to speculative purposes; but they would attack the problem through measures that would affect all forms of bank credit and it was contended that undesirable demands would be reduced first. Mitchell gave as the important advantage of an increase in rates the increased possibility that member banks might refuse accommodation to their customers: they could point to the high rates charged by reserve banks.

² *Ibid.*, pp. 141, 173-175.

³ *Mim.L.S.*, 1928 (28), X-6055, p. 475.

⁴ Hearings: *Brokers' Loans* (70: 1), 1928, p. 82.

⁵ *Ibid.*, p. 72.

⁶ Thus in 1920 Reynolds reaffirmed his faith in the discount rate. U. S. Senate Document No. 310 (67: 4), 1923, p. 24. In 1922 Governor Morss said "the rate and when" is the important thing. *Proceedings*, October, 1922, I, 57. In 1924 Jay said that "the Federal reserve system, like every other bank of issue, should always have

But authorities associated in the administration of the Federal Reserve System have become increasingly aware of the danger of a courageous use of the discount policy. The difficulty may be the lack of publicity in explaining the occasion for changes in rates;¹ but Burgess says that experience has taught officials that explanations are not understood, and hence are not generally given now.² Perhaps the time will come when, as Miller suggests, the prejudice against variable discount rates will be overcome;³ but at the present time the politicians seem to be the insuperable obstacle to the administration of an effective discount policy. Frequently the use of the discount weapon has been avoided because of the fear lest its use be too effective, or lest too much significance be attached to a change.

5. CONCLUSION

In the war period, the authorities attempted to control the use of credit rather than the quantity, and in the early post-war period, they were slow to recognize the inadequacy of a policy of cooperation; but finally some reliance was placed on higher rates. Neither the Board nor a majority of reserve officials, however, seemed to have been completely won over to a policy of control through the use of the weapon. It became evident from the later declarations of policy and the deliberations of the governors and Board in the years 1920-25 that they were inclined to rely less, rather than more, on discount policy. In short, the stage had been set for an ineffective and inadequate use of discount powers in the speculative era, 1927-29.

The conclusions reached in this chapter should be considered in conjunction with those reached in the two preceding. Effective rates are not necessarily penalty rates; but it is worth observing that just as the enforcement of penalty rates seemed less and less likely,

something to lend at a price. . . ." *C.F.Chr.*, 1924 (118), p. 2899. In 1928 Newton Baker, counsel for the Federal Reserve Bank of New York, argued that the regulation of the rediscount rate was one of the vital powers given to the Federal Reserve System. *Mim.L.S.*, 1928 (29), x-6130, pp. 194-195.

¹ C. J. Bullock, O. M. W. Sprague, and W. B. Donham, "Federal Reserve Bank Policy — the Need of a Definite Statement," *Harvard Business Review*, 1923 (1), pp. 134-138; Head expresses a similar desire for publicity.

² W. R. Burgess, *op. cit.*, p. 186; Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 171-174.

³ *C.F.Chr.*, 1925 (121), p. 2594. *Cf. B.M.*, 1924 (109), p. 414.

so discount policy seemed to play a diminishingly important rôle in Federal reserve policy.

Officials were vague when they discussed effective rates. In 1919-20, the objective seemed to be to reduce the total amount of member-bank credit, and in particular the speculative use of credit; and at times the objective seemed to be a reduction of earning assets of reserve banks. But even in 1920, the Board was soon satisfied with a diminution of the rate of increase in the earning assets of reserve banks. Although the authorities were anxious to reduce the total amount of member-bank credit outstanding, they soon learned that if the Federal Reserve System were to survive, it was necessary that reserve banks should not be held responsible for increases in the cost of credit. Hence they requested member banks to refrain from raising their rates *pari passu* with increases by the reserve banks. Significantly enough, however, they were anxious that member banks reduce their rates when Bank rates were reduced. In later episodes, officials were disinclined to pay so much attention to the total amount of member-bank credit outstanding, attempting instead to control the distribution of the credit, and in particular the resources invested on open markets. Of course, this policy also involved some quantitative control. Since those responsible for policy were more inclined to put the emphasis on the use of credit in the later years, they necessarily paid less attention to the Bank rate.¹

As they became aware of their inability to control the total of their earning assets and the inexpediency of reducing the total because of the inelasticity of a large proportion of member-bank credit, they necessarily gave more attention to the uses to which member banks put their resources, and less to the discount rate, as a means of controlling the credit situation. Unable to control the magnitude of earning assets, reserve authorities increasingly emphasized the distribution of their earning assets. It was held that when member banks were heavily in debt, they were disposed to reduce their open market investments and repay the reserve banks; and the latter could control the magnitude of debts through their open market policies. The emphasis on this relationship was an acknowledgment

¹ In presenting a chart comparing its rate with indices of trade and production, wholesale prices, brokers' loans, monetary gold stocks, discounts of all reserve banks, customer rates (in New York), open market acceptance rates, and average yield on Government securities, the New York Bank reveals at least some of the criteria considered in the formulation of rate policy. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 768.

of the ineffectiveness of discount policy, for it was evident that there was no close relation between reserve bank rates and market rates, and moreover, an explanation had to be found for the disinclination of member banks to borrow in the absence of penalty rates. But that rates continued to play a part, is apparent from the fact that when the authorities desired to stimulate the borrowing of member banks, reserve banks reduced their rates, and vice versa. Apparently, high rates as well as increased indebtedness were considered deterrents; but officials found it expedient to emphasize the latter rather than the former.

Large gold reserves were an additional deterrent to the enforcement of an effective discount policy. Higher rates when reserves were much in excess of legal requirements would have called forth harsh criticisms and much misunderstanding. Increasingly, also, have the implications of the provision "to accommodate commerce" played an important part in the neglect of the use of an adequate discount policy; perhaps more than any other factor that explains the increased emphasis on the use of discretion or moral suasion. It is also frequently maintained that the timing and magnitude of the movement of Bank rates have left something to be desired.¹

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 767-768.

CHAPTER IV

OBJECTIVES

I. INTRODUCTION

RESERVE banks may seek to protect reserves, to stabilize prices, general economic conditions, or money rates, or to regulate monetary supplies according to the condition of production and trade.¹ The achievement of one or more of these objectives is not likely to be compatible with that of the others; and discount rate policy may be effective in relation to only one of these ends, ineffective if related to others. Moreover, several objectives are *clearly* incompatible: stabilization of prices and economic conditions, for example. On the other hand, stabilization of prices probably would eliminate elements of instability in the economic system.

Reserve authorities on the whole have had to pay relatively little attention to the state of their reserves and hence have been able to concentrate more on other objectives. Moreover, there has been evident a disposition to modify reserve requirements, or to build up traditional requirements of reserves, or to conceal the genuine reserve position when reserves threatened to interfere with the fulfillment of larger programs. In one important sense, however, large reserves have hampered authorities, for adequate measures of control have not been acceptable to the public when reserves have been large.

Authorities have emphasized the stabilizing effect of the reserve system as the most important goal of their policy. More frequently than any other objective has stabilization of economic conditions been mentioned as the aim of discount policy.² Reserve officials

¹ I do not discuss here the relative merits of the various objectives adopted by reserve authorities but rather attempt to find out what they have been. The reader is referred to a brilliant discussion and criticism of two of these objectives (adjusting credit to trade needs—called *productive credit*—and the stabilization of prices) by Robertson. A. C. Pigou and D. H. Robertson, *Economic Essays and Addresses*, pp. 110-114. Also consult the treatment of these problems in Hardy's excellent book, which appears when this book is about to go to press. I take account of it at several points. C. O. Hardy, *Credit Policies of the Federal Reserve System*, especially chapters IV, V, and X. (Hereafter *op. cit.* refers to this work only.)

² Perhaps the most frank statement of this position was made by the New York Bank in its reply to the Glass Committee: the reserve bank exercises its influence

have pointed proudly to the greater stability of money rates over the year and the greater uniformity between sections of the country after 1914 than before 1914. But their goal of stability of rates was usually kept in mind when discount rates were too high: they did not as a rule find it expedient to interfere with reductions in money rates. That the reserve banks were concerned with something more than stability is obvious from the extent to which they operated continuously, especially in the early years when they were intent on contributing resources and depressing rates. When their surplus reserves were depleted, there was more talk of accommodation for seasonal and emergency purposes only, and defenders of a system of reserve banks operating continuously in the market were now somewhat more inclined to emphasize continuity of operation as a means to effective action in emergencies. A purely emergency institution will not solve the problem of stability; continuous operation of varying intensity is more likely to be compatible with that aim.

If stability were to be achieved by maintaining relatively stable prices or adjusting bank credit to the legitimate requirements of trade and production, reserve banks might introduce the necessary adjustments of the supplies of credit by putting more reserve credit into circulation or withdrawing reserve credit at the disposal of the money market, thus inducing a condition of cheap or dear money. Thus, banks might be urged to reduce accommodation without the deterrent of higher rates. Officials have increasingly become aware of their inability to control the earning assets of reserve banks, however, as well as of the danger of assuming the responsibility for higher rates on the money market. In addition to business conditions, currency and gold movements, fluctuations in reserve requirements, and, perhaps, the magnitude of bank indebtedness have been the decisive factors in determining the lending policies of member banks.

As the reserve banks became aware of the expediency of denying any responsibility for high rates, they also refrained from taking

toward restraint at times when business and speculative activity appear to be excessive and removes credit restraint at times of business depression. In other words (the New York Bank argued), whatever the cause of growth or expansion in the country's credit structure, if the growth is at a rate greater than that at which experience has shown the country's business can grow on a sound and secure basis, then Federal reserve authorities have the responsibility, however unpopular, of lending their efforts, either through open market operations, or discount rate, or both, toward restraint. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 762.

any credit for low ones, although they were anxious that members pass on to their customers the benefits of reserve accommodation at low rates. With the possible exception of the last few years, reserve officials have been more inclined to relate fluctuations in money rates to factors other than reserve policies.

Comparing the period 1915-17 with 1925-29, we are struck by the increased attention paid to control and the less important place given, in the second period, to the objective of accommodation. When the objective seemed to be to supplement the resources of member banks with those of reserve banks and when reserves were adequate for the purpose of contributing large supplies of credit, control received little attention. Stabilization, as interpreted by the responsible officials of the System, involved the generous offer of the facilities of the reserve banks; on the other hand, although the objective of control in the later period was to introduce an element of stability into the economic system, stability seemed to involve largely the prevention of the flow of credit into speculative channels; and later emphasis on control is to be attributed in large part to the requirement that trade and commerce be accommodated.

2. PROTECTION OF RESERVES ¹

In 1918 the reserve position of the reserve banks was first considered seriously in the formulation of reserve policy; during the discussion in the middle of 1918 between Hamlin and Miller on the advisability of raising rates, the occasion for Miller's proposal seems to have been the unsatisfactory status of the reserves.² Although the Board in a rather mysterious memorandum on policy, undated but probably written late in 1919, minimized the seriousness of the reserve position, in its letter of September, 1919, to the chairmen of the reserve banks it held in no uncertain terms that any surplus of gold accruing as a result of imports or contraction was not to be used as a basis of expansion.³ In 1920, the Board did not make the

¹ The reader should also consult the chapters on Gold and Reserve Requirements of Reserve Banks. Cf. S. E. Harris, *Monetary Problems of the British Empire*, pp. 314-319.

² *Mim.L.S.*, 1918, x-1035. (Letter of Hamlin to Governor Harding on Miller's proposal to raise rates.)

³ *Ibid.*, 1919 (11), x-1745, pp. 961-963; *ibid.*, x-1666, p. 606. "You are requested to inform the officers and directors of your bank that it is the view of the Board that as new gold is received, it should be used to strengthen the reserve position of the Federal Reserve System and that these improved reserves, whether growing out of an actual

fullest possible use of the argument of a depleted reserve in support of a policy of contraction, for it allowed the inclusion of gold held abroad as part of the reserves; and the Treasury put at the disposal of reserve banks an appreciable amount of lawful money other than gold eligible for this purpose.¹ The Board, however, did point to impaired reserves in support of a policy of contraction and demonstrated that the status of the reserves of the reserve banks was hardly more satisfactory than those of the Bank of England.² Sprague has recently declared that the unsatisfactory reserve position made an effective rate possible in 1920;³ and although Dr. Miller may be justified in his contention that the protection of the reserves was not the objective,⁴ their dangerous state was nevertheless the *sine qua non* for the introduction of a vigorous policy.

With surplus reserves depleted, officials demanded a rate policy that would make a replenishment possible;⁵ but this argument for high rates lost its effectiveness with the abnormally large imports of gold in 1921, and reserve officials began to preach that reserve ratios had lost their value as a guide to policy. On this subject an interesting debate was held in 1922 at the meeting of governors and agents with the Board. It was quite generally understood that the public always associated changes in Bank rate with fluctuations of reserves;⁶ and, therefore, the Federal Reserve Agent of St. Louis suggested that if the published reserves fluctuated in accordance with changes in rates, there would be less danger of misunderstanding.⁷ Another proposal was that rates should be adjusted automati-

increase in the amount of gold held or because of the contraction in the amount of credit extended, should be regarded merely as a symptom of the return to more normal conditions and not as an incentive to a loan expansion not essential to the public interest nor to the accommodation of commerce and business."

¹ *C.F.Chr.*, 1920 (110), p. 316. (Letter of January 9 of Dallas Bank.)

² *Ibid.*, also 1920 (111), p. 546; cf. *F.R.B.*, 1920, p. 663. The Board announced that it was giving careful attention to the state of the reserves. Cf. Harding's Cleveland address. W. P. G. Harding, *The Functions and Policies of the Federal Reserve System* (September, 1920), pp. 1-2.

³ Hearings: *Stabilization* (69: 2), 1926, 1, 401; cf. O. M. W. Sprague, "The Discount Policy of the Federal Reserve Banks," *American Economic Review*, 1921, p. 23.

⁴ A. C. Miller, "Federal Reserve Policy," *American Economic Review*, 1921, p. 191. The National City Bank defended the policy of the reserve banks on the ground that solvency is the first aim of every bank. National City Bank, *Economic Conditions, Government Finances, and United States Securities*, November, 1924, p. 181. (Hereafter abbreviated: National City Bank, *Economic Conditions*.)

⁵ *Proceedings*, October, 1920, pp. 24, 36; A. C. Miller, *op. cit.*, p. 192.

⁶ *Proceedings*, October, 1922, 1, 135; A. C. Miller, *op. cit.*, p. 192.

⁷ *Proceedings*, October, 1922, 1, 143.

cally to fluctuations in reserves.¹ Miller elsewhere had made a proposal to make the reserve ratio more sensitive so that it would be an immediate indicator of changing conditions.² The consensus of opinion at the conference was in favor of a credit policy not determined by the ratio of reserves. Morss would raise the discount rate when reserves were equal to from 90 to 100 per cent of the liabilities of the reserve banks if conditions demanded an increase in rates;³ Jay pointed out that the high level of reserves was fortuitous;⁴ and Miller, troubled by the difficulty of raising rates when reserves were high, would take early action against incipient inflation.⁵

In its 1923 *Report*, the Board's comments on this subject were virtually a summary of the deliberations of October, 1922.

It is to the reserve ratio that the public in most countries looks to get an indication of changes in the banking position and in the credit situation. This habit of looking at the reserve ratio as an indicator is particularly prevalent in the United States, because the United States is more than any other the country of legally regulated reserves. However theoretically imperfect any reserve ratio may be as a credit and banking index even in normal circumstances, and however defective reserve ratios may have become as a result of the suspension of the gold standard in many countries, the reserve ratio is nevertheless the one banking index that has uninterruptedly enjoyed the prestige of tradition, and there is little or no indication of the displacement of this tradition in the near future.⁶ . . . Under present conditions, however, and until the restoration in some form of the international gold standard, discretion must inevitably play a larger rôle in central banking administration than in pre-war days when more reliance could be placed on changes in the reserve ratio.⁷

In 1924 and 1925, there were indications that reserve ratios might again become significant;⁸ and because movements in 1926 were on a small scale, and in the latter part of 1927 and the first half of 1928 the United States exported a considerable amount of gold, the

¹ *Ibid.*, pp. 104-105.

² A. C. Miller, *op. cit.*, pp. 195-197.

³ *Proceedings*, October, 1922, I, 60. Later, he modified his position somewhat. *Ibid.*, p. 75.

⁴ *Ibid.*, pp. 104-105.

⁵ *Mim.L.S.*, 1922 (16), x-3400, pp. 577-578. Miller's remarks were made at the Conference of October, 1921.

⁶ *F.R.A.*, 1923, p. 29.

⁷ *Ibid.*, p. 38.

⁸ In 1926 (January), the Editor of the *Harvard Weekly Letter* argued along these lines. The writer suggested that when the reserves declined to a point below 60 per cent of the liabilities, reserves of several reserve banks would decline to a point little above the legal minimum; and he anticipated that a redistribution of gold between the United States and other countries would soon occur, and that the magnitude of reserves, therefore, would be given more consideration in the future. Harvard Economic Society, *Weekly Letter*, January 30, 1926.

outlook for the use of the reserve ratio as a guide to policy grew much brighter. But even in 1928, the authorities were still afraid to increase rates while a large surplus of gold was available, and, more recently, the return of normal condition has been delayed by large imports of gold.¹ The large losses in the second half of 1931 and in 1932 modify the situation once more, however.

Thus we see that Federal reserve authorities were able to rely on reserve ratios as a guide only in the years 1919-20 and to some extent in 1931-32. In 1920-21, they found support for a prolonged period of high rates in the argument that it was necessary to replenish reserves; and for later years, it is undoubtedly true that either adequate measures of control were not taken, or that they were disguised because the American people do not approve of restrictive measures when reserves are more than adequate. We are still in the dark concerning the question posed by Sprague in 1921. "It is not too much to say that it is now to be determined whether the people of the United States possess sufficient intelligence and endurance to permit the successful operation of anything better than a straight-jacket credit system."²

3. STABILIZATION OF BUSINESS CONDITIONS³

Over the whole span of the life of the System, stability has been given most frequently as the objective of policy; but stability has not always been the fashion. As we well might suspect, announcements that stability was the objective of policy were particularly prevalent in 1914-16 and 1922-23. In the years of instability, 1917-21 and 1927-32, stability was not frequently referred to by reserve officials.⁴ In 1930, however, Governor Young said that ab-

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 291. Roberts, pointing to the debacle of 1920, defended the reserve banks for their restrictive policies enforced in spite of surplus reserves. G. E. Roberts, "Speculation, Gold and Bank Policy," *Review of Economic Statistics*, 1929, pp. 197-202.

² O. M. W. Sprague, "The Discount Policy of the Federal Reserve Banks," *American Economic Review*, 1921, p. 25. The United States Chamber of Commerce condemns the practice of determining policy on the basis of the reserve ratio. *The Federal Reserve System*, Report of the Banking and Currency Committee, U. S. Chamber of Commerce, 1929, pp. 35-36; *ibid.*, Auxiliary Statements, pp. 42-43.

³ Whitaker mentions five types of economic stabilization. A. C. Whitaker, "Federal Reserve Position and Policies," *American Economic Review, Supplement*, March, 1930, p. 99.

⁴ Late in 1920, the New York Reserve Bank commented on its responsibility to "stabilize credit and keep it elastic." (Italics mine.) *Mo. Rev. of N.Y.R.B.*, December, 1920.

solute security and confidence could "be obtained only by so conducting the financial affairs of the nation as to prevent violent expansions and contractions rather than merely to alleviate their consequences."¹ This is virtually a confession of the failure to stabilize conditions.²

In 1914 the Organization Committee announced as the object of the System "to secure to the business of the country the elastic system of credits and the stability of conditions so long imperatively demanded."³ A committee of reserve officials referred to the steadying, regulatory influence which is the underlying principle of the Federal Reserve Act, and proposed to entrust the Federal Reserve Agent with the task of impressing upon his district the need of stability so that the public might understand the policies of the System.⁴ In a similar manner, Senator Owen,⁵ Governor Strong,⁶ Forgan,⁷ Warburg,⁸ and others⁹ set the main emphasis on stability.

From 1917 to 1921, such pronouncements were infrequent. In 1922, Governor Norris said that a secondary object of policy was to avert extreme inflationary and deflationary movements,¹⁰ and in 1923 Warburg demanded that the System equalize and stabilize every day.¹¹ In the 1923 *Report* the following statement appeared: "The objective in Federal reserve discount policy in all districts is the constant exercise of a steadying influence on credit conditions. . . ." ¹² As late as 1925, Dr. Miller commented as follows:

Almost from the day of their establishment, the Federal reserve banks have had to form a larger conception of their functions in the country's credit and

¹ *Mim.L.S.*, 1930 (32), x-6585, p. 419.

² In 1929, Baker and Logan, counsel for the New York Bank in the Raichle Case, found it expedient to put emphasis on the necessity of preventing over-expansion. In the District Court of the United States, Second District of New York. *Raichle vs. Federal Reserve Bank of New York* (Brief in Support of Motion to Dismiss the Bill of Complaint), p. 17. Cf. W. E. Spahr, *The Federal Reserve System and the Control of Credit*, p. 26.

³ *C.F.Chr.*, 1914 (98), p. 46.

⁴ *F.R.A.*, 1914, p. 177.

⁵ *C.F.Chr.*, 1920 (110), p. 814. (Letter of Senator Owen to President Wilson.)

⁶ *Ibid.*, 1914 (99), p. 1565.

⁷ *Ibid.*, 1915 (100), p. 20.

⁸ *F.R.B.*, 1916, p. 102, ". . . in substance, to increase the safety of our banking structure and to bring about stability, and, as far as possible, equalization of interest rates in various sections of the country."

⁹ *St. Louis R. B. Ann.*, 1915, p. 9.

¹⁰ *Proceedings*, October, 1922, I, 55.

¹¹ P. M. Warburg, "The Federal Reserve Banks and the Open Market for Acceptances," *Harvard Business Review*, 1923 (1), p. 259.

¹² *F.R.A.*, 1923, p. 9. In the same year the *Bankers' Magazine* complained of the failure of the reserve system to keep "business enterprise down to a steady and healthful rate of progress." *B.M.*, 1923 (107), p. 186.

economic system, to steady credit conditions, to give at all times a firm basis of strength and health to the country's credit organization so far as it lies in the power of the Federal reserve and through the wise and intelligent exercise of this function to give steadiness, stability and strength to underlying business conditions. . . .¹

Expressions of opinion similar to the foregoing have now become the exception. Officials have proclaimed less and less frequently their responsibility for stability in the years 1927-29. Still more recently, however, stability has again received much attention in public pronouncements.² The depression and liquidation since 1930 once more raise the question of stabilization; for a program of stabilization is more popular in periods of depression than in periods of prosperity.

4. STABILIZATION OF PRICES

In an early draft of the Federal Reserve Act, it was provided that rates be set with a view to stabilizing prices; but that provision was dropped, and little was heard thereafter about stabilization of prices as an objective of control until 1919.³ In 1916, it is true, the Board refused to take any responsibility for setting a minimum price for cotton.⁴ When the authorities embarked on their policy of deflation, there can be little doubt that they were aware of the necessity of depressing the price level. Frequently, opinions were expressed concerning the future movements of prices that were not discreet; the results of these indiscretions were dangerous political attacks and increased caution in expressing opinions concerning a proper price level.

In June, 1919, the Board expressed a desire to control undue fluctuations in prices,⁵ and although it refused to be the arbiter of

¹ A. C. Miller, "Federal Reserve Discount Policy and the Diversion of Credit into Speculative Channels," *Trust Companies*, 1925 (41), p. 590; cf. Secretary of the Treasury, *Annual Report*, 1924, p. 36.

² "In fact, the history of Federal reserve credit policy in recent years, as we look back on it, shows that the Federal reserve system has in general exercised restraint at times of excess and has provided the stimulant of easy credit in times of deficiency." W. R. Burgess, "Guides to Bank of Issue Policy," *Proceedings of the Academy of Political Science*, 1930 (13), p. 511.

³ Alexander has written a concise history of this question. L. Alexander, "The Power of Bank Credit to Influence Prices," *American Bankers' Association Journal*, May, 1926, pp. 745-747, 796-798.

⁴ *C.F.Chr.*, 1916 (103), p. 1745. (Letter of the Board of September 20, 1916.)

⁵ *F.R.B.*, 1919, p. 523.

prices, it was not unmindful of "the influence exerted on prices by the general volume of credit."¹ But in November, 1919, Governor Harding was compelled to take the defensive as he replied to the National Farmers Union that the Federal Reserve System was not interested in the price of cotton.² The Governor of the Board warned the Federal Reserve Agents "that care should be taken to state the concrete facts only, from which the public can draw its own conclusions, and that anything of a forecast as to commodity prices in particular should be avoided."³ At the same time the Federal Advisory Council informed the Board that the logical result of reserve policy might be lower prices and a lower cost of living; but it should distinctly appear that the Board did not seek to control or regulate prices.⁴ At the Conference of Governors, Chairmen and the Board in 1920, Dr. Miller averred that we must be concerned with the effects of our policies on prices, but we must not let that impression go forth;⁵ and Governor Seay said that although it was necessary that prices be adjusted to a normal basis, the reserve banks should not aim to regulate prices.⁶ According to Federal Reserve Agent Perrin, it was unnecessary for the System to be concerned with the price level, for a healthy price level is an incidental result of a sound credit policy.⁷

By 1922, reserve authorities seemed less inclined to be guided by the fluctuations in prices. Perhaps the experience of 1920-21 had been a lesson, or perhaps now that they had the opportunity to bring a measure of stability into the System, they lost courage or preferred to act without publicly assuming responsibility for their action. Jay said that the Federal Reserve System ought to prevent credit expansion from developing into inflation, natural contraction from developing into deflation, and that the movements in prices would indicate whether the volume of credit was inconsistent with production.⁸ Dr. Miller now contended that prices should only be a guide, to be considered in conjunction with other factors; and that

¹ *Ibid.*, 1920, p. 243.

² *Mim.L.S.*, 1919 (11), X-1729, p. 893.

³ *Ibid.*, 1920 (13), X-2006, p. 761. Governor Harding announced to a Senate committee in December, 1920, that the "Board does not feel that it has any right to establish any rates of discount with a view of putting prices up or putting them down. . . ." U. S. Senate Agricultural and Forestry Committee, Hearings: *Revising the Activities of the War Finance Corporation* (66: 3), 1920, p. 52.

⁴ *F.R.A.*, 1920, pp. 605-606.

⁵ *Proceedings*, October, 1920, I, 67.

⁶ *Ibid.*, pp. 38-40.

⁷ *Ibid.*, pp. 22-23.

⁸ *Ibid.*, 1922, I, 103, 106.

the current increase in prices, because it was accompanied by increased production, was a healthy sign.¹ In a cautious speech, Governor Strong suggested that the Federal Reserve System use every means at its command to maintain the volume of credit and currency at a level, so that, to the extent that volume has any effect on prices, it could not become the means to promote speculation or depression.²

In its *Annual Report* for 1923, the Board reflected the current attitude toward price stabilization; but its published statement was even less favorable toward the consideration of prices as a measure and objective than had been the expression of opinion at the 1922 Conference.

It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation. The same conditions which predispose to a rise of prices also predispose to an increased demand for credit. . . . The price index records an accomplished fact. Good credit administration in times of active business expansion should not encourage or assist the excessive accumulation of forward commitments in business and banking which only later on will definitely reflect the rate at which they have been taking place in resulting changes of credit volume and changes of price levels.³

By the time the House held hearings on the subject of price stabilization in 1926, Federal reserve officials had had ample time to consider the problem. Concerning their ability to control or influence prices, they now expressed a skepticism which undoubtedly was exaggerated because their opinions were for publication.⁴ Stewart

¹ Proceedings, October, 1922, I, 154-157.

² B. Strong, "Agricultural Credit," *Acc. Bull.*, December, 1922, p. 8.

In 1921, Governor Strong made the following comments: ". . . prices are no concern of the Federal Reserve System, directly. In other words, I do not think that the discount policies of the Reserve bank should be determined by watching a chart or an index of the price level. Our business is credit and if you will consider that the dealing with credit has a reaction upon prices, I will admit that it has. You cannot very well effect a great contraction of credit without its having an effect upon prices.

"But the important thing to consider is this, and that is that the rate of the Reserve bank and its relation to prices is a reflection of conditions rather than an effort to create conditions." Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 622.

³ *F.R.A.*, 1923, pp. 31-32.

⁴ Officials did not deny that reserve banks influenced prices. Thus, see Burgess's address before the American Statistical Association, *C.F.Chr.*, 1926 (123), p. 1714. Warburg contended that many factors other than the Bank rate affected prices. P. M.

said that the fluctuations of prices in 1923-26 had been abnormally large on pre-war standards.¹ (But were they if we consider the unprecedented gold movements?) Governor Strong feared that the objective of price stabilization would be interpreted as a *command* to do something which, perhaps, could not be done.² Sprague contended that any reasonable policy would have resulted in a price history similar to the actual one.³ I am inclined to agree with Sprague rather than those who interpret the reserve gold policy as a policy of stabilization of prices.⁴ If central banks are not organizations that ought to use *all* their resources *continuously*, there is nothing unusual in the policy of 1922-26. In these years the reserve banks did not purchase assets to the limit of their resources.

More recently, officials have reaffirmed their faith in the opinions presented in 1926.⁵

It has been seen that, by 1920, reserve officials had learned that it was unwise to proclaim responsibility for movements in prices while in their private conferences they admitted that they had grave responsibilities in the matter. In later years, however, they became less inclined to put so much stress on price movements as a guide to policy, although in public pronouncements of 1923, 1926, and 1928, they rather underestimated their influence and interest in them.⁶

If they refused to accept price stabilization as their objective and

Warburg, *op. cit.*, II, 858. Governor Harding said that the Federal Reserve System may contribute to price stabilization by stabilizing the money market; but other factors are also significant. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 76.

¹ Hearings: *Stabilization* (69: 2), 1926, II, 742. Stewart, however, seemed more concerned with the influence of policy on prices in his statement at the Joint Conference of 1924. *Proceedings*, November, 1924, pp. 177-178.

² Hearings: *Stabilization* (69: 2), 1926, I, 292.

³ *Ibid.*, I, 418-419.

⁴ Thus, see the opinions expressed by Westerfield (*Annalist*, 1926 [27], pp. 835-837) and Kemmerer (*ibid.*, 1928 [31], p. 2).

⁵ Thus Governor Young said in October, 1928, that it would be unfortunate if the System were charged with responsibilities not directly related to banking such as stability of prices or moderation of ups and downs of business conditions. *Acc. Bull.*, October, 1928, pp. 9-13. Cassel heartily disagrees with this view. G. Cassel, "Safeguards of Prosperity," *American Bankers' Association Journal*, December, 1929, pp. 567-568.

The Goldsborough Bill (1932) aiming to stabilize prices is discussed in Chapter XLIII.

⁶ Professor Commons observes that Federal reserve authorities belittle their influence on prices. Hearings: *Stabilisation* (70: 1), 1928, pp. 428-429.

guide, they were aware that their policies influenced prices; and if their objective were stability of economic conditions or the adjustment of supplies of credit to the requirements of trade, fluctuations in prices required careful scrutiny. Even the Board's pronouncement of 1923 was based on the theory of stability as an important objective; and prices proved an inadequate guide only because they were an accomplished fact. Just as the rise of prices in 1919-20 made the introduction of a policy of restriction less unacceptable, an increase in commodity prices in 1927-29 would have made the introduction of an effective policy of control more acceptable to the country.

5. ACCOMMODATION OF COMMERCE AND INDUSTRY¹

A section in the Federal Reserve Act which provides that reserve banks are to set rates with a view to accommodating commerce and business, attracted little attention until the post-deflation period. Nevertheless, a characteristic of Federal reserve policy in the years 1914-19 was an emphasis on accommodation. Federal reserve banks and the McAdoo group in the Board vied with one another in their efforts to give the maximum amount of accommodation at the lowest rate. Perhaps the only opposition to this interpretation of the philosophy of the System emanated from a faction in the Board led by Warburg. In 1918 and 1920, there was a reaction from the policy of unrestrained use of Federal reserve funds, but the political pressure of the years 1920-21 led officials again to urge members to use facilities of the reserve banks rather freely.² In the years 1923-32, officials began to pay more attention to the provision in Section 14 referred to above, becoming increasingly interested in setting discount rates with a view to accommodating commerce and business; but the objectives of 1923-32 are not to be confused with those of 1914-17. In the earlier period, reserve banks were disposed to supplement the markets' resources with those of the reserve banks,

¹ The discussion in this section should be considered in conjunction with what is said later on concerning the right to rediscount.

² The following letter from Secretary of the Treasury Mellon to a United States Senator reflects the pressure to which reserve authorities were subjected: "Discount rates, of course, as has been said by the Board, cannot be pegged or fixed arbitrarily, for there are certain basic conditions related to the demand for and the supply of money in this country and throughout the world which must be taken into account and the formal establishment of a Federal reserve bank rate is merely an interpretation of these conditions." *Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 383.

which were offered at low rates; but in the later period, the reserve banks were peculiarly concerned with the influence of their discount and other policies on market rates, and they put special emphasis on the uses made of their resources. Moreover, they had learned that it was dangerous to employ their resources fully in normal times and that their resources were not unlimited. In the early period, reserve banks offered resources at low rates in order to do business and depress rates; in recent years, they have refrained from raising rates because they feared that legitimate business would be penalized. In the later period, they have also given "accommodation" a more precise meaning by relating it to various indices of trade and production, and they have been more concerned with the requirements of the provision in Section 14 that rates be set with a view to accommodating commerce and business.

In 1914-16, the reserve banks, anxious to do business, were doubtless actuated by a desire for profit, or at least a desire to cover their expenses. Secretary of the Treasury McAdoo and Comptroller Williams were influenced by less justifiable aims, for they were intent on using reserve resources to depress money rates and make it possible for farmers to hold their crops. When the Federal Reserve System opened for business, McAdoo announced that the country would now have adequate supplies of credit.¹ Williams announced that in rediscounting, member banks were not to be hampered by the whims of correspondents;² that the Federal Reserve System had an unused lending capacity adequate to carry the entire cotton crop, and half, if not all, of the wheat and tobacco crops, and also to finance a billion of exports;³ and finally he urged farmers to use reserve resources to hold crops until they could obtain a satisfactory price.⁴ Statements almost as dangerous were even published in the *Bulletin*.⁵

But the Board on the whole was usually more circumspect in its

¹ *C.F.Chr.*, 1914 (99), p. 1492. In the 1915 *Report*, McAdoo commented as follows: "The primary purpose of the Federal Reserve Act was to alter and strengthen our banking system that the enlarged credit resources demanded by the needs of business and agricultural enterprise will come almost automatically into existence and at rates of interest low enough to stimulate, protect and prosper all kinds of legitimate business and to bring about ultimately a greater equality in interest rates throughout the country." Secretary of Treasury, *Annual Report*, 1915, p. 12.

² *C.F.Chr.*, 1914 (98), p. 1502.

³ *Ibid.*, 1915 (101), p. 571.

⁴ *Ibid.*, 1916 (103), p. 1559.

⁵ *F.R.B.*, 1915, p. 258.

official pronouncements. Particularly significant is a long statement of policy published in the 1914 *Report*:

... On the one hand, it is represented that they are merely emergency banks to be resorted to for assistance only in time of abnormal stress; while on the other, it is claimed that they are in essence simply additional banks which should compete with the member banks, especially with those of the greatest power. The function of a reserve bank is not to be identified with either of these extremes, although occasions may arise when either of such courses may be imperative. . . . The Federal reserve banks are the holders of a large part of the banking reserves of the nation, the foundation of its banking structure. Nothing should be permitted in the operation of the reserve banks which would weaken this foundation. . . . The ready availability of its resources is of supreme importance in the conduct of a reserve bank. Only then can it become a safe guide and at the same time a flexible instrument of guidance and control, a regulator of interest rates and conditions. . . . The more complete adaptation of the credit mechanism and facilities of the country to the needs of industry, commerce, and agriculture — with all their seasonal fluctuations and contingencies — should be the constant aim of a reserve bank's management. To provide and maintain a fluid condition of credit, such as will make of the reserve banks at all times and under all conditions institutions of accommodation in the larger and public sense of the term is the first responsibility of a reserve bank. . . . Neither should it be assumed that because a reserve bank is a large and powerful bank, all its resources should be in use all the time or that it should enter into keen competition with member banks, distributing accommodation with a free and lavish hand in undertaking to quicken unwisely the pace of industry.¹

Even in 1917 when the inflation was rampant, the Board wrote:

This responsibility is fully appreciated by the Board, which, while it has been actuated by a desire to do all in its power to give the country every advantage accruing from the financial resources of the Federal Reserve System, has constantly realized that its primary duty is to maintain the system in the strongest possible position.²

Federal reserve banks, however, displayed unjustifiable eagerness to lend their resources. The governor of a reserve bank advised member banks that rediscounting was easy;³ another bank announced that a member could make full use of the rediscount privilege if 10 per cent of its investments were in eligible paper,⁴ and that rediscounts would be made immediately on approval of governor and chairman.⁵ The St. Louis Bank was rather reserved in 1915,⁶

¹ *F.R.A.*, 1914, pp. 17-18.

² *C.F.Chr.*, 1915 (100), p. 2128.

³ *San Francisco R. B. Ann.*, 1915, p. 7.

⁴ *St. Louis R. B. Ann.*, 1915, p. 9; cf. *Rediscounting with the Federal Reserve Bank of St. Louis*, 1916, pp. 7-13.

⁵ *Ibid.*, 1917, p. 7.

⁶ *Ibid.*, p. 697.

but not so in 1916, when it announced that members had the right to tap the gold reservoir.¹ Similar sentiments were expressed by the Dallas Bank.²

Carter Glass has consistently emphasized the commercial character of the reserve banks.³ But a statement from Governor Harding⁴ and one by Governor Strong, who was well versed in central banking theory and practice, are more disconcerting to the student of banking.⁵

By 1918, officials were aware that their resources were not unlimited and that central banks might have to refuse accommodation. The Dallas Bank commented in 1918: "A large number of banks seem to look upon this institution as an inexhaustible supply of funds and instead of using its rediscount machinery for the maintenance of reserves have sought advances for their own gain."⁶ But in 1919, the strong inflationary sentiment swept aside any thoughts of restriction on the part of the Dallas Bank and other institutions.⁷ The authorities, however, were compelled to conserve resources when reserves were reduced to a low level, and much emphasis was then placed on the use to which credit of both member and reserve banks was put.⁸ Unfortunately political pressure was used to dissuade the Board from using its discount rate policy to any important degree for the purpose of discouraging demands for accommodation.⁹

¹ *C.F.Chr.*, 1916 (103), p. 1836.

² *Dallas R. B. Ann.*, 1916, p. 418 (*F.R.A.*, 1916); *Dallas R. B. Ann.*, 1917, p. 14.

³ "If any one object could be said to have prevailed from first to last in the shaping of that act it was to provide machinery through which the country's capital could at all times be made quickly applicable to the fostering of its productive enterprise." C. Glass, "The Federal Reserve System Grossly Misused," *American Review of Reviews*, 1928 (78), p. 258. Cf. U. S. Senate Banking and Currency Committee, Subcommittee, Hearings: *Amendment to Federal Farm Loan Act and Federal Reserve Act* (67: 1), 1921, p. 34.

⁴ He referred to the "establishment of an effective and properly controlled system of credit accommodation, available for immediate conversion into cash or credit of short term paper of a commercial and liquid character." This address was made in November, 1916, when there were signs of the need of restraint. *C.F.Chr.*, 1916 (103), p. 1648. In 1915, he impressed on a Birmingham audience the fact that large rediscount facilities were available. *Ibid.*, 1915 (101), pp. 658-659.

⁵ Governor Strong told the New York Bankers' Association that a country bank could depend on converting 50 per cent of its commercial paper into cash. *Ibid.*, 1915 (100), p. 1880.

⁶ *Dallas R. B. Ann.*, 1918, pp. 8-9.

⁷ *Ibid.*, 1919, p. 5.

⁸ See for example a circular of the Minneapolis Bank issued late in 1919. *Mim.L.S.*, 1919 (11), x-1758, pp. 993-994. Also see the Board's statement for the press of July 9, 1919. *Ibid.*, x-1612, pp. 517-518.

⁹ *Ibid.*, x-1718a, pp. 856-858.

At the May, 1920, Conference, the necessity of retracing their steps was apparent to many of the officials. Bailey of the Kansas City Bank commented as follows: "You have made the Federal Reserve Bank of Kansas City a broker shop, you have changed it from a Reserve Bank to a commercial bank, and I want to get it back. . . ." ¹

Reynolds of the Chicago Bank warned the Board: "You must not overlook this fact that ever since the first agitation of the currency and banking legislation, stress has been laid upon the System and its ability, and every speech made by every man everywhere throughout the country has been to that effect and the public have come to believe that there is no limit to the amount of credit which the Federal reserve banks can extend." ²

At the October, 1920, Conference, Governor Calkins of the San Francisco Bank once more commented on the disposition to consider the resources of the reserve banks as inexhaustible. Thus a member bank announced its intention to finance a lighting company perhaps 100 times too large for the bank, and the capacity of the bank to finance the project was wholly dependent on its capacity to rediscount with the reserve bank. ³ Perrin said that in 1914 it had not been anticipated that the reserve banks would develop into vast lending organizations, although member banks now assumed that they were not to rely merely on their own resources. ⁴ In 1922, Governor Seay made the most extreme statement of the new position: Reserve gold is the reserve of member banks, and rediscounts retrench on reserves. ⁵

But even by the end of 1920, political pressure had become stronger and renewed emphasis was placed on accommodation. ⁶ By 1921, it was clear that reserve officials were once more impressed with the need of accommodating trade. ⁷ Mellon discussed the close relations of reserve banks to industry and proposed that business be

¹ U. S. Senate Document No. 310 (67:4), 1923, p. 32.

² *Ibid.*, p. 23.

³ *Proceedings*, October, 1920, I, 157.

⁴ *Ibid.*, pp. 20-21.

⁵ *Ibid.*, October, 1922, I, 121.

⁶ "The ready elasticity of credit at a time when prices were falling has been a most important factor in meeting the difficulties inherent in such a period." *Mo. Rev. of N.Y.R.B.*, October, 1920.

⁷ In July, 1921, the Board and reserve banks announced that they were prepared to extend further credits for harvesting and marketing in whatever amounts were legitimately required. *C.F.Chr.*, 1921 (113), p. 348.

stimulated.¹ The Board began to liberalize its eligibility rules and to adopt a liberal acceptance policy.²

The lapse was not merely temporary although officials have never allowed themselves to get into the frame of mind of the early years:³ accommodation has been tempered with control. In 1925, Governor Strong admitted that the theory of the Federal Reserve System was that it constituted in part a stabilizer of credit and in part an organization for periodically extending needed credit to the country.⁴ A year later, James, a member of the Board, stated in a public address that "the very purpose for which it was created was to be of service to the agriculture, industry and commerce of the nation."⁵ Although Burgess, in his 1926 address to the American Statistical Association, said that policy was the part which reserve banks play in restraining the excessive use of Federal reserve funds, he added that the major responsibility rests with the borrower.⁶ In 1927, the chairman of the Dallas Bank informed his stockholders that primarily and fundamentally the Federal Reserve System was designed to provide for the credit instruments of commerce an instant sale.⁷ As a result of the stock market boom of 1928-29, there are signs of a reaction from the "accommodation" theory.⁸

An important reason for the increasing emphasis given in recent

¹ *Mim.L.S.*, 1922 (16), x-3400, pp. 564-565, 570.

² *Ibid.*, 1923 (18), x-3700, pp. 298-299.

³ The 1923 *Report* contained the following statement: "Previous to the establishment of the reserve banks a rise in the rates of loans to deposits was properly regarded as indicating an approach to the limits of bank lending power because it indicated also the approaching exhaustion of the surplus reserves of the bank. It foreshadowed an approaching shortage of cash, and under a currency system lacking elasticity, a period of credit stringency. Under the Federal Reserve System, as before, fluctuations in the rate of loans to deposits are occasioned by changes in the country's demand for currency. This increased demand, however, under present conditions, leads to increased borrowing at the reserve banks. . . ." *F.R.A.*, 1923, p. 27.

⁴ *Proceedings*, November, 1925, pp. 147-148.

⁵ *Mim. L.S.*, 1926 (25), x-4653, p. 75.

⁶ *C.F.Chr.*, 1926 (123), p. 1714.

⁷ Dallas Reserve Bank, *Proceedings*, 1927, p. 10; cf. Supreme Court of the United States, *Pascagoula National Bank vs. Federal Reserve Bank of Atlanta*, 1925, p. 93. Newton Baker inserted as the third object of establishing the Federal reserve banks, the extension of credit to member banks. (Significantly enough, this was not in the brief presented to the District Court.)

⁸ Thus, Schneider contends that the expansion of business should have been checked in the spring of 1929, and the country would have been saved the abnormal development of the summer and early autumn. F. Schneider, Jr., "Some Observations on Recent Federal Reserve Policy," *American Economic Review, Supplement*, March, 1930, pp. 104-106.

years to accommodation has been the provision that discount rates be set with a view to accommodating commerce and business; Dr. Miller first brought that provision to the attention of the public in an address of November, 1917.¹ In 1919, Elliott, consulting counsel of the Board, said that the Board might compel reserve banks to conform their rates to the requirement that they be set with a view to accommodating commerce and business.² Miller again referred to the principle in his address to the Governors and Chairmen in 1921.³ The Board made its first official pronouncement in 1923:⁴

In the discharge of the responsibility placed upon it by the Act for the review and determination of the discount policy and discount rates of the Federal reserve banks "with a view of accommodating commerce and business," the Federal Reserve Board must look for guidance primarily to information concerning the state of industry and trade and the state of credit. . . .

In 1925 it was clear that this provision was held to justify the failure to increase the rate of the New York Bank when speculation was rampant.⁵ Nothing need be said here concerning the important part which this provision played in 1927-29.⁶

To summarize: in the war period (1914-19), reserve banks and an element in the Board were anxious that the reserve banks become a factor in the money market, that they reduce the cost of bank credit and add appreciable supplies to the resources of the money market. By 1919, it became apparent that resources of reserve

¹ *C.F.Chr.*, 1917 (105), p. 1847.

² *Mim.L.S.*, 1927 (27), X-4945a, pp. 162-163.

³ Accommodation does not mean high rates when four million men are out of work, nor artificially low rates when business is speeding on the up-grade. *Ibid.*, 1922 (16), X-3400, p. 576.

⁴ *F.R.A.*, 1923, p. 35; also see pp. 7-8.

⁵ "In the absence of evidence of a speculative attitude among the commercial users of credit, the reserve system was unwilling, for the purpose of exercising a measure of restraint upon those who were borrowing in order to carry or deal in securities, to raise the discount rate at New York and thus to exert its influence in the direction of a further increase in the cost of credit to commerce and industry at the time of the seasonal peak in the volume of commercial borrowing and in the demand for credit to finance the marketing and export of agricultural products." *Ibid.*, 1925, p. 6.

⁶ Sprague in 1926 predicted that immediate advances in the discount rate were unlikely, for business had had assurances since 1921 that large additional supplies of Federal reserve credit were available. O. M. W. Sprague, "Immediate Advances in the Discount Rate Unlikely," *Annalist*, 1926 (28), p. 493.

In 1928, he said that an increase in the discount rate would check the upward movement of brokers' loans, but the reserve banks would not thus "accommodate" business. *Hearings: Stabilization* (70: 1), 1928, p. 148.

banks were not unlimited, and that a proper central banking policy requires that resources be conserved for emergency or seasonal use. An exhaustion of reserves was followed by the introduction of measures of control, and because the experience of 1918-20 has been remembered, accommodation may not play so prominent a part as formerly. The reserve banks have, however, continued to be banks of accommodation; the element of control introduced has been used to assure the proper use of accommodation, and incidentally, proper use would assure a measure of stability. The increasing emphasis that has been placed on the requirement that discount rates be set with a view to accommodating trade and commerce has been in part responsible for the failure to make adequate use of the discount rate as a weapon of control. Whereas in 1914-17 the object was to bring rates down as much as possible, in 1923-29 the object in general was to prevent rates on the market from rising too much. In 1920-21, a failure to reduce rates appreciably is to be considered in conjunction with the silence of officials concerning the provision that the discount rate be set with a view to accommodating business and commerce. Although reserve banks have not advanced credit merely for emergency and seasonal purposes, they have learned to conserve part of their resources for emergency purposes. Gold movements may in part explain the change. If they are not banks of accommodation to the same extent and in the same sense that they were in the early years, they are still largely banks of accommodation.

6. ADJUSTMENT OF CREDIT TO THE REQUIREMENTS OF TRADE AND INDUSTRY

The desire to accommodate led the authorities to seek a measure for the state of trade and industry. As we have seen, accommodation in 1915-17 was interpreted to mean that the reserve banks were to dump additional supplies of credit on the market. In the war and post-war period, bank credit increased at a very rapid rate although production was relatively stable.¹ After 1920, authorities were resolved to avert inflation at all costs; their increasing attention, in seeking to determine credit policy, directed at the fluctuations of trade and industry is thus easily explained.² Officials, however, were

¹ See the interesting chart presented by Dr. Miller in 1928. *Ibid.*, p. 304.

² The Minneapolis Bank expressed itself clearly on this point in 1920. *Mo. Rev. of Minneapolis R. B.*, May, 1920.

vague: were the adjustments to be made in member-bank credit, reserve-bank credit, or both?

In May, 1921, Dr. Miller told the Maryland Bankers' Association that the Board in its present frame of mind would test credit by what it would do to production and trade.¹ In a forecast for 1921, he wrote that the function of the Federal Reserve is to regulate the flow and volume of credit in accordance with changing conditions and requirements of industry and trade.² At the 1922 Conference similar ideas were voiced.³ Reynolds, however, was skeptical.⁴

The Board's statements were somewhat less vague than those given above. In 1922 it pointed out that *reserve* credit and currency had fluctuated with fluctuations in business activity.⁵ In March, 1923, the Board argued that the economic use of credit is to *facilitate* production and orderly marketing of goods; but whenever the productive energies and resources of the country are employed at full capacity, output cannot be enlarged by an increased use of credit and a further increase in prices.⁶ A few months later the Board announced: "This rate of growth for bank credit, compared with the rate of expansion of production and trade, affords, in the absence of such a test as the reserve ratio which is dependent upon free gold movements, an important indication of changes in credit conditions."⁷ In the 1923 *Annual Report*, the emphasis was placed on the contributions of credit by the reserve banks in periods of expansion and their capacity to take up the slack in periods of depression; on the necessity of setting rates that would not discourage the use of reserve credit for legitimate purposes or stimulate speculation, when the country's resources are apparently fully employed; and on the need of stimulating business by the introduction of low

¹ *Mim.L.S.*, 1923 (18), x-3700, p. 298. Governor Harding had made a similar statement in September, 1920. W. P. G. Harding, *The Functions and Policies of the Federal Reserve System*, p. 5.

² *Mim.L.S.*, 1921 (14), x-3011, p. 93. In 1922, Dr. Miller compared the fluctuations in the volume of trade with those in member bank and reserve bank credit. A. C. Miller, "Curves of Expansion and Contraction, 1919-21," *Annals*, 1922 (99), p. 145.

³ *Proceedings*, October, 1922, 1, 95. Governor Norris said that adequate supplies of credit should be assured for productive enterprise, and Wills, chairman of the Cleveland Bank, said that trade should be served; the test was the instruments that represented trade. *Ibid.*, pp. 50, 54.

⁴ G. M. Reynolds, "Rediscount Rates, Bank Rates and Business Activity," *Annals*, 1922 (99), pp. 190-195.

⁵ *F.R.A.*, 1922, p. 2.

⁶ *F.R.B.*, 1923, p. 283. A similar statement was made by the New York Bank, *Mo. Rev. of N.Y.R.B.*, March, 1923.

⁷ *F.R.B.*, 1923, p. 539.

rates if industry and trade are in the process of recovery.¹ In the years of expansion preceding the stock market collapse, indices of production and trade were given less attention in official circles, for the increase in loans and investments and deposits could not easily be justified by movements in industry and trade.²

It is clear that the state of trade and industry was both a guide and an end; increased production required more credit and more credit was offered to stimulate production. Increased production and trade were held to justify the creation of more credit; but a reduction in trade might well be followed by an increase in credit in order to stimulate a recovery. Thus, even in 1921, it was held that unfavorable economic conditions made it necessary to increase the amount of bank credit.³ Although reference was occasionally made to the necessity of adjusting member-bank credit to the fluctuations in trade, officials generally contemplated adjustments that were made in the first instance through changes in the amount of reserve bank credit outstanding. They generally assumed that they could control the volume of member-bank cash and that either member banks would be encouraged to borrow if Bank rates were reduced or that, at least, lower rates or a reduction of debts would encourage member banks to lend at lower rates, which in turn would ultimately result in increased reserve requirements. Elsewhere I have pointed out, however, that reserve officials were disposed to minimize their control of market rates and the magnitude of member-bank balances. In the last two years or so (1931-33) reserve authorities have once more put much emphasis on the stimulation of industry by the creation of additional credit.

7. CONTROL

In a previous section it has been explained that when the policy of offering excessive accommodation brought dire results, more at-

¹ *F.R.A.*, 1923, p. 10; cf. *Proceedings*, October, 1922, 1, 154-157; *ibid.*, November, 1924, pp. 173-178; *F.R.B.*, 1924, p. 245.

² Anderson pointed out in 1927 that credit had expanded at a much more rapid rate since 1921 than could be justified by the movement of trade and industry; and Burgess made a similar observation for the year 1928. B. M. Anderson, Jr., "Some Major Forces in the International Money Market," *Chase Economic Bulletin*, October, 1927, pp. 19-21; W. R. Burgess, "The Money Market in 1928," *Review of Economic Statistics*, 1929, pp. 24-25; cf. O. M. W. Sprague and W. R. Burgess, *op. cit.*, II, 699.

³ Cf. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 45, 50. Cf. *Proceedings*, November, 1924, p. 184. Stewart points out that when production declines, increased supplies of credit are created to hold goods.

tion was given to control, for it then became apparent that restraints were necessary. But if more control was necessary for the purpose of conserving resources or assuring their use for legitimate purposes, officials were inclined to make little of their influence over the policies of member banks, for, as a result of attempts to control in 1918-20, reserve banks and the Board had been subjected to harsh criticisms for attempting to dictate the policies of member banks.¹ Hence, from the viewpoint of conservation of resources, more control was deemed necessary; but any display or expression of authority might invite attack. In the next section I shall attempt to relate the problem of control to rate policy, and thus give an additional explanation of the failure of an effective discount rate policy. In part the explanation is similar to the one given above: it was, that, to control rates was not expedient.

The disastrous results of the inflationary episode led the Board and reserve banks to emphasize the need of stability; but now stability required an element of control and restraint that had not been introduced in the earlier years when stability was under scrutiny. In the years 1920-25, announcements of the intention to control and assumptions of the responsibility for control were especially numerous; in later years, as has already been said, failure to maintain stable conditions was reflected in less frequent announcements of the need of control for the purpose of maintaining stable conditions.² This was particularly true because reserve banks could not point to an exhaustion of resources in justification of a policy of control or (and) stability.

The officials of the New York Bank made several statements in 1920 in which they made known an intention to control credit, introduce more stable conditions, and instruct banks that they might not borrow permanently.³ In October, 1921, Dr. Miller told the

¹ I do not discuss at this point the problem of examinations of member banks by reserve banks, but the problem is discussed in a later chapter. All that need be said here is that officials have frequently contended that examinations of member banks by reserve banks were necessary or at least the results of examinations ought to be made available for inspection by reserve banks in order to protect the resources of the reserve banks. *Mim.L.S.*, 1921 (14), x-3109a, p. 583.

² There was considerable criticism of the Federal Reserve System in the years 1928-29 for its refusal to take any responsibility for credit conditions beyond the high rates for commercial loans. B. M. Anderson, Jr., "The Federal Reserve System and Credit Control," *Annalist*, 1929 (33), pp. 548-549.

³ *C.F.Chr.*, 1920 (110), pp. 1486-1487; *ibid.*, 1920 (111), pp. 546, 1904. Deputy Governor Case made the following comment: "I can see our Federal Reserve System

Governors and Chairmen that they could effectively restrain an unhealthy and undesirable tendency toward inflation by advancing rates.¹ In 1925 Miller, Mellon, and Jay each made crucial statements on the responsibility of the Federal Reserve System for stable credit conditions.²

By 1918, reserve authorities had begun to dictate to member banks a proper investment policy.³ Actually, the Board had taken the initial step in its pronouncement of 1916, in which it had advised member banks to refrain from investing in foreign Treasury bills.⁴ Again in July, 1919, the Board made the following statement for the press: "The demands for credit for stock speculation must yield precedence to these prior demands, and the rates for stock speculation ruling from time to time, however erratic, can have no permanent effect upon the rates for governmental, commercial and industrial purposes."⁵ A sentence which Governor Harding requested the press to omit from his written version of a speech to be delivered on January 8, 1920, is also significant. "Henceforth the activities of the Federal Reserve Board will include efforts to bring about a complete distribution of Government bonds to investors and their elimination from the assets of banks."⁶ Perhaps the least discreet statement was one published in the December, 1918, *Bulletin*. "The Federal Reserve System is now in an exceptional

and the currency system that goes with it so developed that when the pace of business gets a little too fast, when American enthusiasm gets out of bounds, when the spell of making money rapidly gets the better of men's judgment, this system will automatically apply the brakes."

¹ *Mim.L.S.*, 1922 (16), x-3400, p. 569.

² Miller: ". . . have had to form a larger conception of their function in the country's credit and economic system — one best to be defined to steady credit conditions, to give at all times a firm basis of strength and health to the country's credit organization so far as it lies in the power of the Federal Reserve and through the wise and intelligent exercise of this function to give steadiness, stability and strength to the underlying business conditions." *C.F.Chr.*, 1925 (121), p. 2593.

Mellon said that the most important function is the steadying influence, and a thorough knowledge and development of credit control is the most important factor in the System's future development. A. W. Mellon, "What Future for the Federal Reserve?" *The Nation's Business*, May, 1925, pp. 26-27.

Jay said that "the Federal Reserve is charged with some responsibility for general credit conditions." P. Jay, "A Gold Trusteeship," *American Bankers' Association Journal*, March, 1926, p. 614.

³ *Mim.L.S.*, 1918, x-649. Letter of Board to reserve banks. *Ibid.*, x-1075.

⁴ *F.R.A.*, 1916, p. 2; *Annalist*, 1916 (8), p. 740; cf. A. C. Miller, "Making Ready for New Financial Tests" (1917), for a defense of the attitude of the Board toward foreign bills.

⁵ *Mim.L.S.*, 1919 (11), x-1612, p. 518.

⁶ *Ibid.*, 1920 (12), x-1794.

position for influencing the distribution and use of banking credit upon an economic basis. . . . To them is thus assigned a function of surpassing importance — to maintain the liquid character of the assets held against the demand obligations of the banks and by regulation of discount rates, to regulate as far as conditions permit, the uses and limits of credit.”¹ Reserve banks made public statements in a similar vein.²

But with the exceptions of the indiscretions committed in 1918-20, reserve authorities have been inclined to deny any responsibility for the lending policies of member banks. When the Board was under pressure in 1915 to influence member banks in the cotton district to adopt a proper banking policy, Harding replied that the Board had no direct control over the discount operations of member banks.³ He made a similar reply in 1920 to a Farm Organization that had requested of the Board the offer of emergency credits.⁴ In a note to the Department of Commerce, he announced that neither the Board nor the reserve banks had requested of member banks that they refrain from lending on cotton.⁵ Similar statements were made by the Boston Reserve Bank.⁶ In 1921 the Board restated its position in the *Annual Report* and at public hearings,⁷ and even went further in emphasizing the limited responsibility and lack of influence of the reserve banks in suggesting that member banks determine the amount of reserve bank credit outstanding.⁸ At the 1922 Conference, Governor Strong said that reserve banks

¹ *F.R.B.*, 1918, p. 1164.

² “It has been the policy of this institution during the year to impress upon member banks the necessity of keeping their assets in a liquid condition, to curtail the extension of credits to those lines essential to the Government’s war program, to carefully scrutinize new financing. . . .” *Dallas R. B. Ann.*, 1918, p. 8. The Cleveland Bank instructed member banks to discriminate, and to deny those who borrow for non-productive purposes. *Cleveland R. B. Ann.*, 1919, p. 13.

³ *C.F.Chr.*, 1915 (100), p. 183.

⁴ *Mim.L.S.*, 1920 (13), X-2070a, p. 1080.

⁵ *C.F.Chr.*, 1920 (111), p. 546.

⁶ The Boston Reserve Bank has made no attempt to dictate to member banks what class of loans was to be denied. *Boston R. B. Ann.*, 1920, p. 10; cf. *Mo. Rev. of Boston R. B.*, August, 1920.

⁷ *F.R.A.*, 1921, p. 95; Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, especially pp. 234, 373. “The Federal Reserve Board has maintained and the Federal Reserve Bank of New York has maintained that it is not the duty of either the Federal Reserve Board or the Federal Reserve Bank of New York to control the internal management or policies of banks coming within the jurisdiction of the Comptroller of the Currency by means of arbitrary restrictions of credit.”

⁸ *Mo. Rev. of N.Y.R.B.*, September, 1921; *ibid.*, October, 1921.

should reduce their regulation of member banks to the minimum required for purposes of control; and Governor Seay pointed out that the most dangerous idea was that the System controlled the bank credit of the nation.¹

Impelled, in short, by the pressure of war and the fear of introducing an adequate discount policy, reserve authorities attempted to control the lending policies of member banks in 1918-20. But when they were assailed by the politicians for discriminating in favor of this or that industry, they denied any responsibility for the investments of member banks. Thus in the years 1921-25, they scrupulously refrained from taking measures for the purpose of controlling the policies of member banks. As late as 1926, Governor Strong made an admirable statement of this position, in which the difficulty of reconciling this policy with the later attempts to control the use of reserve bank credit is clearly revealed.² In the years 1919-20 to 1927-29, unfair political criticism had compelled the authorities to renounce a policy that contributed to a more healthy monetary situation in 1920-21, and this renunciation rendered the success of a similar policy in 1928-29 less likely.

8. CONTROL AND RATES

It has been made clear in an earlier section that in the years 1915-17 there was little occasion for control of money rates. Officials, however, were anxious to introduce uniform, stable, and lower rates.³ In the post-war years, they frequently commented on the increased stability of rates;⁴ but it does not necessarily follow that

¹ *Proceedings*, October, 1922, I, 117, 185.

² "We do not attempt and do not desire to manage the business of member banks. We do not want to assume the responsibility of telling them how they shall use their money. But we do at times when they borrow from us or continue to borrow from us, if they have other means of adjusting their reserve position, without becoming more or less continuous borrowers, have a talk with them. We do not tell them 'you must do this and must not do that.'" *Hearings: Stabilization* (69: 2), 1926, I, 456.

³ *C.F.Chr.*, 1916 (103), pp. 1559, 1648-1649. Phelan, the Chairman of the House Banking and Currency Committee, emphasized this point in an address to the House. *Ibid.*, 1920 (111), p. 27. Cf. *Annalist*, 1915 (5), p. 594 (Strong emphasized the importance of this object), and *Dallas R. B. Ann.*, 1917, p. 16.

⁴ Thus the New York Bank compared the seasonal fluctuations from 1890 to 1908 with those from 1917 to 1923. *N.Y.R.B. Ann.*, 1923, p. 9. The Board compared rates from 1910 to 1913 with those from 1922 to 1925, and pointed out that seasonal withdrawals had been followed by stringency before the War. *F.R.B.*, 1926, pp. 470-471. Colonel Ayres prepared a memorandum for Baker for use in the Pascagoula Case in

reserve banks controlled the movement of market rates by the use of their discount weapon, for by putting resources at the disposal of the money market when funds were drawn out of the district or out of the country, reserve banks were *also* able to stabilize rates more or less; and members repaid the reserve banks when they had more than ample funds.¹ It has been pointed out above that in the years 1919 and 1920, rates were raised to conserve resources and prevent a banking collapse;² that reserve banks and the Board put pressure on member banks when they attempted to raise their rates because the discount rates of reserve banks had been increased; and that they took no responsibility for the higher rates charged by member banks.³

In 1920-21, the reserve banks and the Board declined to take the initiative in bringing rates down, although political pressure was strong.⁴ On the theory that higher reserves were necessary, that penalty rates were normal, and that liquidation would be stimulated by higher rates, the reserve banks maintained high rates for a relatively long period.⁵ Especially sensitive to political pressure, the

which he pointed out that from the year 1915 to 1924, commercial rates rose or fell from the level of the previous month by more than $\frac{1}{2}$ of 1 per cent infrequently as compared with the years from 1890 to 1915. 242 U.S., 1925, p. 125.

¹ *F.R.B.*, 1924, pp. 76-77.

² *C.F.Chr.*, 1921 (113), p. 686. At public hearings in 1921, Governor Harding was more specific: speculation was rampant, and earning assets had increased. U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish Office of Comptroller of the Currency* (67: 1), 1921, pp. 8-9. On introducing its 7 per cent rate, the New York Bank was also specific: earlier advances had not been effective; the new rate reflects current conditions; it was necessary to release credit for seasonal needs. *C.F.Chr.*, 1920 (110), p. 2322.

³ Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, especially pp. 381-383, 507, 720-721. The Board held that normally Bank rate should not control the rate at which member banks lend to their customers. Secretary Mellon held that the establishment of a reserve bank rate was merely an interpretation of basic conditions. Governor Strong was convinced that the market rate had gone up before the New York Bank raised its rate to 7 per cent.

⁴ *Annalist*, 1921 (17), p. 381. (Mellon intimated that rates would be reduced shortly.) Cf. *C.F.Chr.*, 1921 (113), p. 475 (Owen's comments); U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 85.

⁵ The Board and the Boston Reserve Bank commented on the improved reserve position and the increased liquidation as the occasion for a reduction of rates. Dr. Miller said that the reserve banks that have reduced their advances to the greatest extent, should reduce rates first. *F.R.B.*, 1921, p. 651; U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish Office of Comptroller of the Currency* (67: 1), 1921, pp. 12-13; *Mo. Rev. of Boston R. B.*, July, 1921; *Boston R. B. Ann.*, 1921, pp. 13-15; *Mim.L.S.*, 1922 (16), X-3400, p. 577.

Reynolds of the Chicago Bank objected to a reduction of rates until liquidation had been completed. "Now we are witnessing the phenomenon of a large rediscount item when business is slack and prices falling. *C.F.Chr.*, 1921 (112), p. 1925.

Board was more prepared to reduce rates than were the banks. The *Report* of the Joint Commission of Agricultural Inquiry includes an apt discussion of reserve officials' motives. Apparently they feared that lower rates would tempt member banks to increase their borrowings and thus endanger the position of the banks' depositors.¹ In the agricultural communities where pressure for liquidation was strongest, the Board apparently was forced to check the enthusiasm of at least one reserve bank for lower rates.²

By 1920, officials began to preach the doctrine that they did not control market rates, and that they could not exercise any arbitrary control over them. In a letter to Senator Owen, Governor Harding wrote in May, 1920: "The Federal Reserve Board does not take the view that discount rates should be arbitrarily fixed by it; it recognizes the fact that there are certain basic conditions which affect the demand for and supply of credit throughout this country and throughout the world and that the formal establishment of a discount rate is merely an interpretation of these conditions."³ Mellon took a similar position in reply to a request for lower rates from Senator Sheppard. Although he admitted that the Federal reserve banks could exercise a limited control over rates, he added that it "must be exercised in view of basic conditions relative to the demand for and supply of money in this country and throughout the world."⁴ In these early utterances, the authorities were not prepared to admit that they had no control of money rates, but preferred to say that they did not care to exercise any arbitrary control, and that they adjusted Bank rates to market rates; clearly, the millenium of penalty rates was still before their eyes.⁵

¹ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 86-88.

² Thus, see the reply of the Dallas Bank to the suggestion of the Board for special rates for agriculture. When confronted with an application for a reduction of rates in the Dallas District, the Board had apparently resorted to the use of the unsatisfactory argument that the earning assets of the Dallas Bank were at a very low level, and hence the Bank could not afford a further reduction of earnings. *Mim.L.S.*, 1922 (17), x-3513, p. 1078.

³ *C.F.Chr.*, 1920 (110), p. 2244.

⁴ *Ibid.*, 1921 (113), p. 1003. Sisson of the Guaranty Trust wrote in a similar vein. F. H. Sisson, "Discounting the Future versus Cashing the Present," *Annalist*, 1921 (17), p. 734.

⁵ Thus, see the reply of the Board to Senate Bill No. 4560 providing for a maximum discount rate of 5 per cent. *F.R.B.*, 1921, pp. 5-6. In 1923, the Boston Reserve Bank increased its rate because market rates had increased; in 1924, the Bank referred fluctuations in money rates to the condition of member banks; in 1927, monetary ease was traced to the condition of member banks. *Mo. Rev. of Boston R. B.*, March, 1923, *ibid.*, March, 1924; *ibid.*, December, 1927; cf. *F.R.A.*, 1924, p. 10.

But they began to modify their position. First, they pointed out that although Bank rate follows market rates, the fluctuations in the former are smaller:¹ this modification of the doctrine was called for when the reserve banks hesitated to follow market rates downwards and were slow in raising rates when the tendency was upwards.² In other words, they thereby admitted that their rate policies were inelastic. Moreover, under political pressure, officials began to emphasize the need of anticipating market changes.³ Political pressure in the Harding and Coolidge administrations was in part responsible for a preference for low rather than high rates.⁴ When speculation brought higher market rates, reserve officials denied any responsibility for the increase, although ultimately high rates for commercial needs were held to justify the measures of control introduced. Thus it is clear that the authorities abandoned their philosophy of rate control or lack of responsibility for rates when speculation became rampant and market rates rose rapidly. When the Bank rate was increased, they could maintain that the increase was a recognition of existing conditions;⁵ but they also attempted to influence existing conditions as they had on several other occasions in the years 1923-29.⁶ The statement that changes in rates merely reflected fluctuations in market rates does not mean

¹ *F.R.B.*, 1922, pp. 768-769.

² Miller suggested that reserve banks recognize and anticipate market conditions; prompt action in a falling market would strengthen the position of the reserve banks in a rising market. *Proceedings*, November, 1924, pp. 232-233. The hesitation of the authorities late in 1925 when an increase was called for, was full of significance for the future. *C.F.Chr.*, 1925 (121), p. 2594. (Miller's address of November 17, 1925.)

³ Thus, *cf. Mim.L.S.*, 1922 (16), x-3400, p. 576. In April, 1921, the editors of the *Review of Economic Statistics* inquired whether the reserve banks would take the initiative in reducing rates in the midst of a period of depression. *Review of Economic Statistics*, 1921, p. 79.

⁴ H. P. Willis, "Will the Racing Stock Market Become a Juggernaut?" *Annalist*, 1924 (24), pp. 541-542; H. P. Willis, "Politics and the Federal Reserve System," *B.M.*, 1925 (110), pp. 13-20.

⁵ Thus, in 1928 and 1929, higher rates were attributed to the overloaned condition of member banks and the disproportion existing between deposits and loans, although some attention was given to the Board's firm money policy. *Mo. Rev. of N.Y.R.B.*, August, 1928; *ibid.*, September, 1929; *Mo. Rev. of Boston R. B.*, June, 1929. The Board also emphasized the increase in indebtedness of member banks. *F.R.B.*, 1929, pp. 360-361.

⁶ When the New York Bank increased its rate in 1923, it was announced that further additions to the volume of credit, and increases in prices would be less effective in promoting the production and distribution of goods. *C.F.Chr.*, 1923 (116), p. 874. In commenting on three changes in rates in 1926, the New York Bank pointed to movements in open market rates, the volume of reserve and member bank credit outstanding, and the state of industry in defense of its rate policy. *Ibid.*, 1927 (124), p. 1695.

that the reserve banks were not in part responsible for market rates. In 1930 reductions in Bank rates were justified by the argument that conditions at home and abroad had changed.¹ Reserve authorities are to be praised that in the latter part of 1929 and in 1930, a period in which fear of a recurrence of speculation was strong, they brought rates down speedily. They had profited from the experience of 1920-21. In 1932, moreover, they attempted to depress market rates by a vigorous policy in the open market.

In the years 1921-25, the spokesmen of the System repeatedly announced that they exercised no control over the investment policies of member banks and that changes in their Bank rates were a recognition of conditions on the money market. On the other hand, they attempted to develop a philosophy of stability which would support them in a policy of restraint when an orgy of inflation, similar to that experienced in 1919-20, might threaten. Unfortunately, they were not called upon to give practical effect to this philosophy of restraint, for reserves remained at an embarrassingly high level, unstable conditions called for less frequent reiteration of a philosophy of stability, and, in 1928-29, the theory of non-interference with the lending policies of member banks proved disconcerting as authorities refrained from raising rates because of the fear of penalizing business, attempting then to control the investment policies of member banks. The contention that rates merely reflected market conditions was misleading; ² the reserve banks had a more positive rate policy, although, it is true, they frequently failed to follow it.³ They followed market rates because to do so

¹ *Mo. Rev. of Boston R. B.*, April, 1930.

² Thus, contrast Burgess's position — rates follow movements in the open market — with Willis's position. The latter rightly pointed out that the reserve banks have not merely followed market rates. W. R. Burgess, *op. cit.*, p. 201; H. P. Willis, "Will the Racing Stock Market Become a Juggernaut?" *Annalist*, 1924 (24), p. 541. More recently, Burgess has admitted that reserve banks influence market rates, and the need of the exercise of such restraint is peculiarly necessary when the check of small surpluses of cash is not available. W. R. Burgess, "Guides to Bank of Issue Policy," *Proceedings of the Academy of Political Science*, 1930 (13), p. 512.

³ Governor Strong said in 1926, "The rates of discount are fixed after considering almost every element that enters into the credit situation, including consideration of the rates of interest in the market, the course of prices, if you please, to some extent, whether there is much speculation or inventories are piling up or not, whether the flow of business is uniform, and even somewhat with relation to the foreign movement of gold." Hearings: *Stabilization* (69: 2), 1926, I, 329. Cf. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 768.

At the October, 1920, Conference, Governor Seay said that discount rates were governed by the rates charged by member banks to customers, rates in the open mar-

was the easiest course; but they frequently influenced market conditions first and thus set the stage for changes in Bank rates.

9. CONTINUOUS OR EMERGENCY OPERATION?

At the outset there was almost universal agreement that the reserve banks were to operate continuously. In its 1914 *Report* the Board clearly pointed out that the reserve banks were not to be emergency institutions, that instead they were to prevent emergencies, that they were not to be timid in using their resources in normal times, and that at the proper time they were to supplement the market's resources.¹ That there was little disagreement among the members of the Board on this point is evident from individual expressions of opinion by Delano, Warburg, Harding, and Hamlin.² Of the attitude of McAdoo and Williams, however, more may be said in criticism.

In 1918, the tendency was to question the philosophy of previous years. Deputy-Governor Case of the New York Bank now took a more moderate position in contending that although the reserve banks might satisfy daily needs, their resources were to be used primarily for emergency purposes.³ The New York Bank announced in December, 1919, that the rediscount privilege should be exercised to meet emergency conditions or sudden and seasonal demands of a bank's own customers.⁴ Governor Strong said that it had never been intended that the Federal reserve banks should be used to promote permanent expansion.⁵ In short, there was a reaction from the theory of continuous operation to the theory of operation in

ket, volume of bank loans and deposits, the character of business and industrial activity, the level of commodity prices, condition of the security market, and the interest rate on time deposits. *Proceedings*, October, 1920, I, 128. Compare the guides suggested by the Federal Advisory Council in 1921 (*F.R.A.*, 1921, p. 685). Also see Sprague's comments on the danger of false objectives — stability, protection of the acceptance market or Treasury finance. O. M. W. Sprague, "Price Stabilization," *American Economic Review, Supplement*, March, 1929, pp. 67-68.

¹ *F.R.A.*, 1914, pp. 17-18.

² *C.F.Chr.*, 1915 (100), pp. 697-698; *ibid.*, 1915 (101), p. 1424; *ibid.*, 1916 (103), p. 1650; *F.R.B.*, 1916, p. 102; P. M. Warburg, *op. cit.*, I, 702. Cf. O. M. W. Sprague, "The Federal Reserve Banking System in Operation," *Quarterly Journal of Economics*, 1916 (30), p. 628.

³ *C.F.Chr.*, 1918 (106), p. 2171.

⁴ *Ibid.*, 1919 (109), p. 2122.

⁵ *Ibid.*, 1920 (110), p. 2; cf. a letter sent by the Dallas Reserve Bank to its members. *Ibid.*, p. 316.

emergencies only, a position that the Chicago Bank had taken from the very beginning.¹

The Conference of Governors, Agents and the Board in October, 1922, approved Jay's motion "that the credit policy of the Federal Reserve System should aim to furnish currency and credit to member banks for seasonal and emergency requirements but such policy as well as open market operations should be administered in each district in such manner as to assist the System in discharging, as far as it may be able, its national responsibility to prevent credit inflation."² Mitchell's version of the proposal which included the phrase "with regard to general credit conditions" was voted down. Apparently there was some concern over inflation. The accepted motion was a rather extreme statement of the new theory that even emergency or seasonal accommodation might be denied if inflation threatened.

But by the early part of 1924, the Board had apparently given up the position taken in 1922; and thereafter less and less was heard of seasonal and emergency operation. "The Federal reserve banks are the country's supplementary reservoirs of credit and currency, the source to which the member banks turn when the demands of the business community have outrun their own unaided resources. The Federal reserve supplies the needed additions to credit in times of business expansion and takes up the slack in times of business recession. It is its responsibility to regulate the flow of new and additional credit from its reservoirs in accordance with solid indications of the economic needs of trade and industry."³ In 1926, Jay himself repudiated the doctrine that he had proposed in the 1922 Conference.⁴

¹ *Chicago R. B. Ann.*, 1915, p. 285 (*F.R.A.*, 1915); cf. J. B. Forgan, "Currency Expansion and Contraction," *Annals*, 1922 (99), pp. 167-173. Glass said in 1922, "... and it is a system of reserves, not of normal everyday discounting but of reserve discounting in time of emergency. ..." U. S. Senate Banking and Currency Committee, Hearings: *Rural Credit* (67: 4), 1922, p. 27. Willis was critical, however, because the reserve banks had become emergency organizations: no European central bank suffered such large fluctuations in their assets. H. P. Willis, "The Federal Reserve System — a Retrospect of Eight Years," *Political Science Quarterly*, 1922 (37), p. 574.

² *Proceedings*, October, 1922, II, 424.

³ *F.R.A.*, 1923, p. 10.

⁴ P. Jay, "A Gold Trusteeship," *American Bankers' Association Journal*, March, 1926, p. 613. In the early days of the System some bankers brought up on ideas of occasional issues of emergency currency used to suggest the Federal reserve as a glorified safety deposit vault for emergency only. "But this was not the kind of institution the law conceived of."

The original members of the Board presented the theory that reserve banks were to operate on a large scale in normal times; that position was more or less consistent with the aim of stability and accommodation; they also realized, however, that all resources should not in normal times be in use. In the years 1919-22, their position was repudiated; but when the fear of inflation and exhaustion of reserves subsided, there was a reaction in favor of the original theory, and although current ideas of accommodation and limitation of resources are somewhat different from those prevalent from 1915-17, reserve banks now operate in normal times to the extent that was demanded by Warburg and the others.

10. CONCLUSION

The magnitude of reserves has not usually been either a guide to policy or an objective; and abnormally large reserves frequently hampered the reserve banks, for policies of contraction or restraint were not easily justified in the eyes of the public when reserves were appreciably greater than legal requirements. Although the experience of 1919-20 had taught reserve banks the danger of using up surplus in normal times, they have operated continuously nevertheless, and the theory of emergency or seasonal operation has been in vogue for but a few years. It should be considered, however, that seasonal operation from the viewpoint of member banks may well involve continuous operation for the reserve banks. On the other hand, they have conserved their resources more carefully than in the years from 1918 to 1920, and have consistently held large surplus resources in the last ten years. To this extent the reserve banks have prevented further increases in prices, and perhaps may be held in part responsible for declining prices. But that is not equivalent to saying that the Federal Reserve System stabilized prices. In general, the reserve banks have not attempted to deprive member banks of cash as they received the vast supplies of gold from abroad, and they could not have achieved that object, for they have not held adequate assets. On the other hand, the reserve banks have had a greater influence on prices than they publicly proclaim. A few indiscretions in 1919-21 taught the authorities that public announcements of responsibilities or of the exercise of large powers involved grave political dangers.

In the first years of the System, reserve banks seemed to be

primarily interested in stabilization and the offer of large additional resources at low rates. There was no conflict between their concept of stability and accommodation. Emphasis was put on stability of rates, with equal emphasis on stability at lower levels. In the years from 1921 to 1925, the authorities evinced less interest in rates, for they had learned that it was not expedient to take responsibility for the level of rates on the money market, and they made use of more scientific measures of stability. Particularly, they utilized indices of trade and production; but these factors were a measure not only of the requirements of credit: authorities also attempted to control, in order to increase trade and production, the supplies of credit, and when increased prices were accompanied by increased production, the injection of additional supplies of credit was held to be justifiable.

Fear of another episode of inflation led the authorities to seek a more reliable index for the purpose of maintaining stable conditions. In the early post-deflation years, increasing regard was given to the provision that discount rates be set with a view to accommodating trade and industry; and thus the policy of adjusting supplies of credit to the state of industry and trade was easily justified. But the interpretation given to this phrase was one likely to jeopardize stability rather than assure it. It was commonly held that an increase in the discount rate was the opposite of accommodation.

Inflation and deflation in 1919-21 have been unfortunate for the Federal reserve. The episode made so great an impression on politicians that it almost wrecked the System. Reserve officials had made progress in controlling the lending policies of member banks that promised well for the future; moreover, both speculative and non-essential loans had been discouraged. But the severe criticisms of politicians frightened the authorities, and they spent the next five years repeatedly denying any responsibility for the policies of member banks. Reserve banks had a similar experience in their attempts to control the rates on the money market. When they found it necessary once more in 1928-29 to take some responsibility for the lending policies of member banks and money rates, their task was made the more difficult by the fact that they were once more embarked on a policy which had seen dangerous political results in 1920-21 and which they themselves had repudiated over a period of five to six years.

CHAPTER V

STRUCTURE OF RATES WITHIN THE FEDERAL RESERVE DISTRICT

I. EARLY DEVELOPMENT

THE Federal Reserve Act provides that rates are to be set tentatively by each Federal reserve bank subject to review and determination by the Board. That provision has been interpreted to mean that, for purposes of rate-making, paper may be classified according to maturity or type. It has not been clear what the basis of this peculiar interpretation is; but it is consistent with the theory that reserve banks, which hold the banking reserves of the country, are responsible for the protection of Federal reserve notes secured in part by eligible paper and securities. Preferential rates have therefore been held to be desirable for paper of short maturities and of a self-liquidating type; but discrimination in favor of paper on the basis of collateral or security behind it has not generally been approved.¹ (The legality of *special* rates on paper secured by commodities may therefore be questioned.) Congress gave its assent to this interpretation when it passed special legislation providing for special rates on paper secured by Government securities.

Thus Congress acknowledged that differentiation on the basis of collateral required special legislation. The Committee on Rediscount appointed by the Federal Reserve Board reported in favor of low rates for paper of short maturities,² and the Board in its 1915 *Report* announced that it had "endeavored during the past year to develop a consistent discount policy, graduating its rates according to the maturity and character of paper discounted or purchased in the open market. . . . At the close of 1915 the lowest rates made by the Federal reserve banks for any class of paper were those on bankers' acceptances, approved by the Board at from 2 to 4 per

¹ However, see the Board's memorandum of July 3, 1920. *Mim.L.S.*, 1920 (13), p. 654. Mitchell says that rates might be adjusted according to maturity, use of proceeds, and the number of names on the paper. W. F. Mitchell, *Uses of Bank Funds*, p. 136.

² *F.R.A.*, 1914, p. 172.

cent, but running in actual practice only a little above the lower limit thus stated. . . ."¹ A special 3 per cent rate for ten days was introduced,² and in 1916 the Board reported greater diversification than in the preceding year.³ The reserve banks in 1917 also introduced a special 2-4 per cent rate for loans of one day.⁴ Similarly, the War brought special rates for paper secured by Government securities. During the war period, in fact, the System attained a maximum degree of diversification of rates.

Diversification was also obtained by other methods, some of which were of doubtful legality. Special rates on acceptances were effective only if the paper was sold by a bank other than the endorser.⁵ Special rates on Government securities would be denied when there was evidence that the securities were not owned by the rediscounting bank or had been purchased merely for the purpose of rediscounting.⁶ The suggestion was also made in 1920 that preferential rates ought to be denied on customers' paper secured by Government securities, because the public had had ample time to liquidate.⁷ Other methods of discrimination were to require additional collateral, especially when Government securities had depreciated; or to increase the rate on renewal loans.⁸ These methods of differentiation were enforced at the discretion of the reserve banks.⁹

2. SPECIAL RATES ON GOVERNMENT SECURITIES

Special rates on notes or paper secured by Government securities were introduced in order to enable member banks to distribute and purchase them without loss.¹⁰ By the same token member banks were encouraged to lend to customers with the assurance that they could rediscount customers' notes secured by bonds without loss. The System was not free from defects; and its deficiencies were in large part responsible for the repudiation of the system of diversification of rates in the post-war period.

Governor Strong contended in 1918 that member banks borrow

¹ *Ibid.*, 1915, p. 5.

² *F.R.A.*, 1916, p. 6.

³ *N.Y.R.B. Ann.*, 1917, p. 17.

⁴ *Mim.L.S.*, 1920 (13), X-1972, pp. 655-656.

⁵ *Proceedings*, October, 1920, II, 208-209.

⁶ *Mim.L.S.*, 1918, X-1057; *ibid.*, 1920 (13), X-1972, p. 658.

⁷ More later on the problem of additional collateral (see Chaps. XXI and XXIII).

¹⁰ *Mim.L.S.*, 1920 (13), X-1972, p. 653.

² *C.F.Chr.*, 1915 (100), p. 2126.

⁴ *Ibid.*, 1917, p. 6.

at the lowest rates obtainable.¹ Member banks could therefore borrow at preferential rates and invest the proceeds in commercial or speculative loans.² There was no assurance that the System stimulated the sale of Government securities, for its result was perhaps as follows: preferential rates *both* for customers of member banks borrowing on "Governments" and member banks were a means of pegging the price of Government securities. Member banks would find it profitable to purchase Government securities only to the extent that they needed additional cash. Other investments were more profitable by virtue of the fact that the special facilities offered by the reserve banks and members to holders of Government securities made it possible to issue Treasury securities at low rates. Hence, the net effect might be advances at low rates from the reserve banks and use of the proceeds in large part for other purposes. In short, the result of this policy was to make other investments more attractive, at least so far as the banks were concerned.

Another difficulty is that the preferential rate becomes *the* rate when member banks can obtain adequate supplies of the type of paper accepted preferentially. As has been said in an earlier chapter, the preferential rate is not necessarily the lowest; it is the rate that is lowest in relation to the yield. Thus, member banks were able to borrow from a reserve bank under very profitable conditions; in one sense this was advantageous. When vigorous action was required in 1919-20, the reserve banks could avert the disturbance following an increase of rates by reducing the differential in favor of Government paper, thus virtually increasing rates and averting part of the disturbance that is usually associated with a general increase of rates. The differential in favor of war paper was reduced in the face of rather vigorous opposition.³ It was contended by some observers that the low rates on Government securities retarded the liquidation of war securities by member banks; but it was not until member banks had disposed of a large proportion of their securities

¹ U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, p. 154.

² *Proceedings*, October, 1920, II, 218.

³ For a study of coupon rates and rates charged by reserve banks on certificates, see U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 123. In 1917, 1918, and most of 1919, the rate of issue was $\frac{1}{2}$ of 1 per cent, or more, above the rate on advances on paper secured by Treasury certificates. In the last month of 1919 and the first few months of 1920, the rate was a penalty rate, but in the second half of 1920 and early 1921, the rate of issue was once more above the Bank rate on such paper. Later in 1921, the Bank rate was again above the coupon rate.

that the elimination of the differential was held to be justified.¹ Curiously enough, the reserve authorities did not raise the rate on paper secured by Treasury certificates rapidly enough to satisfy Gilbert, the Under-Secretary of the Treasury.² He protested at a rate on notes secured by certificates, and pleaded for a free market and the withdrawal of support by the reserve banks, so that he might appeal to the investors.

More recently, Senator Glass and others have contended that advances on the security of Governments ought to be discouraged by charging a higher rate on such advances than on other advances. The assumption is that speculation has been stimulated by the free use of such advances. The problem is considered elsewhere. Here it may be pointed out that the asset presented to the reserve bank is no guarantee of the use of the proceeds.³

3. COMMODITY RATES

There is a peculiar provision in Section 13 which seems to offer special facilities to borrowers on paper secured by commodities; but in general that has been interpreted to mean that paper secured by commodities that is otherwise eligible would not be rejected because it is thus secured. In 1915, McAdoo and Williams induced the Board to introduce special rates for commodity paper on the condition that the member banks would not charge more than 6 per cent to their customers on this type of paper; they were to borrow at 3 per cent.⁴ Apparently this privilege was not widely used, for member banks had adequate funds, and those forced to borrow found it more profitable to lend at approximately 8 and pay the reserve bank 1 per cent in excess of commodity rates.⁵ In response

¹ *Mim.L.S.*, 1919 (10), X-1459, p. 187. (Recommendation of Governors' Conference of March, 1919.)

² *Ibid.*, 1921 (14), X-3031, 3031a, 3031b, pp. 124-126; *Proceedings*, October, 1920, II, 210.

³ Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 779-781. Cf. *S.3215* (1932), Section 13, and *S.4412* (1932), Section 8 (A Bill to Provide for the Safer and More Effective Use of the Assets of Federal Reserve Banks, etc.). The former version of the Banking Act of 1932 was introduced in January and the latter in April. In the latter version, Senator Glass made some concessions and would discriminate against collateralised advances only when collateral loans of members are increased in spite of warnings by reserve authorities.

⁴ *F.R.B.*, 1915, pp. 258-260, 297, 310-312.

⁵ Cf. Wyatt's Memorandum on the history of commodity rates. *Mim.L.S.*, 1929 (31), X-6353, pp. 46-49.

to a question by Senator Owen, Governor Harding wrote in 1918 that the reserve banks, under pressure of excessive demands for accommodation, had since adjusted commodity rates to those on commercial paper.¹

In 1921-22, the Board seemed disposed to yield to political pressure once more and introduce a modified form of commodity rate. But with the exception of the Dallas Bank, the reserve banks objected. It was asserted that little use had been made of this privilege on the previous occasion; that the profits of member banks would thus be increased and from the low rates offered to them, customers would not profit; that banks would present this paper in place of commercial paper; and that the reserve banks would thus approve a profit of 2½ per cent on advances of funds obtained with paper rediscounted by member banks.² Governor Strong's memorandum was especially convincing. He contended that commodity paper served no more useful purpose than did other eligible paper, that it was infeasible to vary the discount rate on the sole basis of the rate charged on a particular piece of paper by a member bank; and he was doubtful of the legality of defining paper according to the type of collateral.

While Federal reserve bank rates might properly be related in a general way to market rates for money in the district in which the bank is located, it is a decidedly different matter to charge a member bank a special rate on a particular note of a customer of the member bank merely on the basis of the amount of interest paid by that customer on that particular note.³

The question was raised again in 1926 by James, a member of the Board, and, significantly enough, by Dr. Miller in the autumn of 1928.⁴

4. UNIFORM RATES

At the fall conference of Federal Reserve Agents in 1919, opposition to preferential rates was expressed; but the Federal Advisory Council preferred to maintain the current rate structure until the Treasury had progressed further with its financial program. Classification of paper according to maturity rather than collateral was

¹ *Mim.L.S.*, 1929 (31) X-6353, p. 48.

² *Ibid.*, 1921 (15), X-3187, pp. 923-925; *ibid.*, 1922 (17), X-3513, pp. 1063-1078.

³ *Ibid.*, pp. 1059-1061.

⁴ *Ibid.*, 1929 (31), X-6353, pp. 48-51.

still considered desirable.¹ In the winter of 1919-20, notable progress was made, by increasing the rates on war paper, toward uniformity of rates in each district.² Governor Harding proposed the termination of preferential rates on the grounds that because reserve notes were secured by illiquid assets (equities in Liberty bonds) the notes were inelastic.³ The October Conference (1920) recommended an early adoption of uniform rates with the exception of a preferential rate on acceptances and possibly on Treasury certificates; and by 1921 that objective was virtually achieved.⁴ Liquidation of securities by member banks and the repayment of loans secured by war paper at the reserve banks, made it possible to discontinue the discrimination in favor of war securities. Reserve officials seemed of the opinion that as securities were sold to investors the proceeds could be used to repay the reserve banks;⁵ they failed to realize, apparently, that the sale of a security to an investor resulted merely in a reduction of investments and deposits, enabling the banks to repay the reserve bank only to the extent to which reserve requirements were reduced — possibly one tenth, or even a considerably smaller proportion of the value of the securities sold. Indeed, member banks increased their rediscounts of commercial paper, and the cash required for any net payments to the reserve banks was obtained by redeeming notes or depositing incoming gold.

Little attention has been paid in recent years to the problem of preferential rates on paper of short maturity. Apparently, the accepted theory of the years 1914-19 has been repudiated. What is the explanation? One factor is that officials now recognize the offer of paper of short maturity as a guarantee neither of the type of

¹ *Ibid.*, 1919 (11), X-1719a, p. 1870; *F.R.A.*, 1919, p. 515.

² *C.F.Chr.*, 1919 (109), p. 2219; *ibid.*, 1920 (110), p. 31; *F.R.B.*, 1920, p. 2. In the spring of 1920, however, rates on commercial paper increased more rapidly, and hence the differential in favor of war paper increased. *F.R.B.*, 1920, p. 557.

³ *Proceedings*, October, 1920, I, 114.

⁴ *Ibid.*, pp. 168-169; *ibid.*, II, 349-350; *F.R.A.*, 1921, p. 33. A thoroughgoing uniformity was not in effect even as late as 1922. *F.R.B.*, 1922, p. 769.

In 1921, Governor Strong presented a strong argument for uniformity: the reserve banks made only "good" loans; hence, there is no basis for discrimination. "I have always felt that we should look in the Federal Reserve System toward a policy of having one rate for all credit which we extend for a given period of time." *Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 691-692.

⁵ *Proceedings*, October, 1920, II, 236. The New York Bank, however, seemed to be aware of the limitations. *Mim.L.S.*, 1921 (14), X-3031a, p. 125; *C.F.Chr.*, 1920 (110), p. 31.

business carried on by the bank nor of the use to be made of the proceeds of the loan on rediscount. Secondly, authorities seem to be less concerned over the safety and protection of the currency notes and member banks' reserves than they were in the early years; they have learned that their early fears were ill-founded. Another, and perhaps the most important, reason, is that a very large part of all borrowing at reserve banks has been on notes of a maturity of fifteen days or less, and hence a preferential rate would be equivalent to a reduction of all rates. Borrowing for brief periods is especially prevalent in the financial centers. A rate structure adjusted to maturities, therefore, would be discriminatory against agricultural sections, a type of discrimination not politically expedient.

Of the preferential rates on acceptances, more will be said in a later chapter. In 1923 Under-Secretary of the Treasury Gilbert wrote a most illuminating memorandum addressed to officials, in which he criticized the rate structure of the reserve banks.¹ He proposed that penalty rates be enforced for bankers' acceptances and Treasury certificates, and that the rate on commercial loans be increased. Rates on open market paper had in the past been depressed to a very low level, with the result that the reserve banks had virtually destroyed the market. If the proper rate structure were adopted, Gilbert explained, banks in the financial centers would sell paper to dealers when in need of cash, and the latter would sell to reserve banks in periods of financial stringency. Moreover, escape by rediscounting on the part of member banks would be closed. Gilbert's memorandum has been one of the few criticisms made of the system of more or less uniform rates in vogue since 1921.² His proposal was that penalty rates be maintained; the enforcement of uniform rates has been possible only because penalty rates were not acceptable.

5. RATE STRUCTURE

In this section, a few general remarks are offered on the problem of rate structure, in part by way of summary. Penalty rates are not practicable if uniformity of rates within the district is enforced; the Bank rate on paper of high grade would be too high to be of any

¹ *Mim.L.S.*, 1923 (19), x-3807, pp. 673-680. (Letter of Gilbert to Governor Crissinger, August 3, 1923.)

² Cf. P. M. Warburg, "The Federal Reserve Banks and the Open Market for Acceptances," *Harvard Business Review*, 1923 (1), p. 265-266.

practical significance.¹ On the other hand, penalty rates restricted to certain types of paper are subjected to criticism,² and are likely to result in an ineffective rate, because the tendency will be to rediscount other types. Probably more accurately, the introduction of such a rate structure will be followed by a change in the type of borrower. Thus member banks rather than dealers may borrow if a penalty rate on acceptances is enforced. If the acceptance rate remains the lowest rate — and even if it is the only penalty rate — the member bank may borrow on acceptances until it has an opportunity to adjust its position. A penalty rate in relation to acceptances, for instance, will not then be a penalty rate in the true sense if the rate is below the return on the bulk of the banks' investments.

Authorities have frequently contended that the reserve banks enforced penalty rates before 1917.³ There is no evidence that Bank rates have been above that on commercial loans, although in the years 1915 and 1916 the discount rate was above that on commercial paper.⁴ Although there is more elasticity in the rates charged on customers' loans, especially in the financial centers, than is commonly supposed, the Bank rates have probably never been higher than the rate on line-of-credit loans.⁵ In recent years, tradition has dictated that the Bank rate be above the rate on bankers' acceptances and below that on commercial paper in the open market; but the Bank rate has lacked elasticity, with the result that in periods of extreme ease, such as 1924, the rate on commercial paper has declined below the rediscount rate.⁶ There has been an element of confusion in any particular presentation of this rate structure,

¹ Riefler has pointed out that the differences in rates between cities of different sizes is much in excess of the differences in rates on different classes of paper in all cities. W. W. Riefler, *op. cit.*, p. 95. This fact is significant for the problem of penalty rates.

² Thus the American Acceptance Council was critical of the rate structure when penalty rates were in vogue for acceptances only. *Acc. Bull.*, January, 1920, pp. 1-2.

³ *F.R.A.*, 1918, p. 790.

⁴ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 124.

⁵ Riefler observes that customer rates seem to fluctuate on a national scale with fluctuations in the open market rates. W. W. Riefler, *op. cit.*, p. 71. *Cf.* Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 75.

⁶ W. R. Burgess, *op. cit.*, p. 192 (chart). Riefler points out that when the margin between Bank rate and the rate on commercial paper has been reduced (lowered), the reduction in rates in open markets other than that for commercial paper has been in excess of the reduction of the rate on commercial paper. W. W. Riefler, *op. cit.*, p. 49. In the years 1918-20, the rate on commercial paper was strikingly in excess of the Bank rate. *F.R.B.*, 1920, p. 942.

which has been given wide publicity, because it is supposed to lend the support of English tradition to our structure.¹ Confusion arises because the buying rate is usually more significant than the discount rate in relation to the market rate on bankers' acceptances, indicating the buying rate as the real basis of comparison unless the rediscount rate is lower;² and in any event, even if the buying rate were always a penalty rate, it is extremely doubtful whether the Bank rate in the United States would be a penalty rate in the same sense as is the Bank of England rate. The charge made by the central bank must be considered in conjunction with the true object of the sale or rediscount of the paper presented. The return on the paper sold to the reserve bank or rediscounted is not nearly so significant in the United States, where the relation is largely between the reserve bank and the member bank. True enough, dealers may refrain from purchasing bills under the old terms if the buying rate is increased; but member banks are not so easily dissuaded from rediscounting.

6. PROGRESSIVE RATES

The theory on which, in 1920, progressive rates were introduced in several districts, was that each member bank was entitled to a portion of the resources of the reserve bank, to be determined by its contribution to the capital and deposits of the reserve bank; and that if it borrowed in excess of its rightful share, other banks suffered.³ Legal support for this theory was found in a provision in Section 4 which required non-discriminatory treatment of member banks, and in the Phelan Act, which allowed reserve banks to increase the charge to borrowers of excessive amounts on condition that penalties be uniformly administered.⁴ Progressive rates were a method of control introduced to curtail and reduce the demands for reserve accommodation, and the introduction of the plan is

¹ Thus *cf.* *F.R.A.*, 1923, p. 8. Even Governor Strong gives a misleading impression in presenting a study of the *discount* rate of the New York Bank, and the open market rate on bankers' acceptances and commercial paper. Elsewhere he makes the analogy with our buying rate, however. *Hearings: Stabilization* (69:2), 1926, I, 318, 440.

² The buying rate is more elastic than the discount rate and in periods of ease is reduced more quickly. *F.R.A.*, 1927, pp. 90-91.

³ Public-No. 170-66th Congress; see the discussion of this problem in U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 24-26, 56-62.

⁴ *F.R.B.*, 1920, p. 448.

explicable in part by the fear of high rates in the United States.¹ It was feared that a 7 per cent rate would increase the cost of accommodation to customers of the banks and also would penalize member banks indiscriminately.²

In 1918 the subject of additional charges to excessive borrowers was under consideration.³ In the early discussions at the Conference of 1920, the governors received the plan half-heartedly; but in reply to questions by the Board, they suggested a standard for determining the basic line and insisted that the manner of introduction as well as the acceptance of the plan should be left to the discretion of the reserve banks.⁴ The Federal Advisory Council approved the idea, but anticipated the criticism which the Joint Commission of Agricultural Inquiry in reviewing the episode later was to make; namely, that banks in dissimilar condition should not be treated uniformly.⁵ Although several officials in districts where progressive rates were in force expressed enthusiasm for the scheme, the Board, responsible in large part for the introduction of the Phelan Bill, seemed lukewarm, and finally virtually admitted its failure.⁶

Senator McLean, Chairman of the Banking and Currency Committee, observed that the advantage of progressive rates was that a bank's credit would not be injured by a refusal on the part of the

¹ U. S. Senate Document No. 310 (67: 4), 1923, p. 31.

In the House Report it was held that although an increased rate has a restraining influence, member banks can rediscount to any amount lawfully. "This bill will give each Federal Reserve Bank authority to make uniform rules, determining for each member bank a normal maximum rediscount line based upon some such standard as its legal reserve, or possibly upon capital and surplus, with graduated rates on an ascending scale to apply equally and ratably to all its member banks rediscounting amounts in excess of the normal lines." It was desirable to check banks demanding excessive amounts of credit, short of a refusal and an increase in rates for all. U. S. House Report No. 678: *To Amend the Federal Reserve Act Relative to Establishing of Discount Rates* (66: 2), 1920, p. 2.

² U. S. Senate Document No. 310 (67: 4), 1923, p. 21; *Proceedings*, October, 1920, 1, 101.

³ *Mim.L.S.*, 1918, x-1032. The Governors' Conference considered a proposal for a differential charge on excessive loans.

⁴ *Ibid.*, 1920 (12), x-1873a, p. 245; *ibid.*, x-1906, pp. 489-490.

⁵ *F.R.A.*, 1920, p. 601; U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 62. Senator Owen, in a letter to President Wilson early in 1920, proposed a special rate for member banks that borrow more than their rightful share, in preference to a high Bank rate. *C.F.Chr.*, 1920 (110), p. 813.

⁶ U. S. Senate Document No. 310 (67: 4), 1923, pp. 31-32; *C.F.Chr.*, 1921 (113), p. 686; *F.R.B.*, 1920, p. 672; *F.R.A.*, 1920, p. 59. Cf. the comments of the Comptroller of the Currency. *Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 24-25.

reserve bank to give accommodation.¹ The introduction of the plan, however, was followed by the application of increased pressure on large borrowers to liquidate. In an excellent discussion of progressive rates, the Joint Commission of Agricultural Inquiry pointed out that a small number of large banks in Omaha and Kansas City which had obtained a disproportionate amount of reserve bank accommodation, reduced their indebtedness appreciably with the introduction of progressive rates, while other member banks, previously out of debt to reserve banks and borrowers on a small scale, materially increased their borrowings.² Herein lay the danger of progressive rates: many banks were impressed with the fact that they had not borrowed their rightful share of the reserve bank's resources, and hence borrowing was artificially stimulated. The outcome was that member banks not in need of reserve bank funds borrowed at the expense of banks in distress; and, of course, liquidation by some banks was made possible by the sale of assets to other banks and their customers, and resulted in increased borrowing by other banks. Moreover, whatever success the plan had may be attributed in part to the failure of other districts to introduce a similar scheme, for progressive rates drove banks to their correspondents.³ The Joint Commission made clear that whereas the banks in Omaha and Kansas City, borrowing in excess of their basic line, had reduced their rediscounts with the introduction of progressive rates, country banks in a similar position increased their borrowings.⁴ But the Commission failed to point out the explanation: that the large banks in these two cities might have forced their correspondents in the same district to borrow directly from reserve banks.

In commenting on a Senate Resolution of 1922 criticizing the System for its failure to introduce progressive rates in the financial districts, Governor Harding pointed out that no member bank in New York, Boston, or Philadelphia would have been liable to a charge above 7 per cent for any ten-day period since May, 1920, if

¹ *F.R.B.*, 1920, pp. 448-449.

² U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 56-58. Governor Norris suggested this possibility in October, 1920. *Proceedings*, October, 1920, I, 109. Governor Miller of Kansas City pointed out that a large number of member banks now began to borrow for the first time. *Ibid.*, p. 91.

³ *Ibid.*, pp. 96-97, 106. Chairman Martin said the adoption of the System in neighboring districts made it necessary to adopt it in St. Louis. *Ibid.*, p. 82.

⁴ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 57-58.

the same scale of progressive rates had been in effect as in the Middle West.¹ That progressive rates did not cure the evil of excessive borrowing by individual banks is evident from the large number of member banks borrowing in excess of their basic line at the end of 1921.² The additional cost of progressive rates to the public was not large. In the Kansas City District, for example, the average charge on all accommodation was 6.61 per cent, and the average for banks paying the penalty rate was but 6.76; and the latter charged their customers no more than did banks not borrowing excessively.³

7. CONCLUSION

The theory of a diversified rate structure within the Federal reserve district has been discarded for a theory of uniform rates. Preferential rates for war securities are unnecessary, and special rates for bankers' acceptances are likely to play a less important rôle in the future; and the experience with commodity rates is reassuring, for member banks are disinclined to cooperate in any plan for reducing the price of credit. The lesson of progressive rates is that discrimination on the basis of the amount of accommodation received from the reserve bank is fraught with political dangers. Preference on the basis of security offered has not been approved except where provided by legislation. In the early years, emphasis was placed on the necessity of encouraging the rediscounting or borrowing on paper of short maturities; but as member banks borrow for the most part for short periods, the introduction of a rate structure based on maturities would be equivalent to a reduction of rates and would be especially welcome to banks in financial centers.

¹ *Mim.L.S.*, 1922 (17), X-3507b, pp. 1047-1048.

² At the end of 1921, the borrowings of 906 member banks constituted 494 per cent of their basic line while the total borrowings of all member banks were only 40 per cent of their basic line. *F.R.A.*, 1922, p. 3.

³ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 62.

It was later pointed out by the Board that it was necessary to distinguish the average rate on all borrowings from the average rate on excess borrowings and the highest rate on any borrowing. The very high rates in two of the districts were explained by the depletion of balances of member banks: balances were a factor in the determination of the basic line. An Atlanta bank that was charged 81 per cent was borrowing seven times the amount of its capital stock, and its reserve balance had been reduced from 9,433 to 86 dollars. U. S. Senate Document No. 291, *Interest Charges of Federal Reserve Banks* (67: 4), 1923, pp. 3-10. (Letter from Acting Governor of Federal Reserve Board.)

Market rates on different types of paper and loans vary, and the rates on similar loans and paper in communities of varying size differ even more widely. The application of penalty rates would therefore require a very complicated rate structure; and penalty rates have therefore not been practicable in the United States. Undoubtedly, the prominent place given to preferential rates in the early years is in part to be ascribed to the anxiety to induce banks to use the facilities of the Reserve, and as the attitude of reserve banks toward rediscounting has changed, they have been less inclined to offer special rates.

CHAPTER VI

UNIFORMITY OF BANK RATES IN THE UNITED STATES

I. THEORY AND HISTORY OF UNIFORMITY

IN THE early years, authorities attempted to introduce a system of differential rates within the reserve district; but they were anxious to reduce the differences between districts and hence adopted the policy of uniform rates for similar paper throughout the country. "Beginning at the opening of the system with a comparatively high rate for ordinary commercial paper and with more or less variation between the different districts, the reserve banks have during the year steadily reduced the general level of discount rates and have worked rapidly and effectively toward uniformity for the entire country."¹

Several circumstances contributed to the development of this policy. One of the tasks confronting the reserve banks was to usurp the authority and influence of the correspondents of member banks. If the reserve banks in the West and South were to rediscount at rates that were higher than the rediscount rates in the East, banks in the West and South would find it profitable to continue borrowing from their correspondents, who in turn might find it profitable to lend funds obtained from the reserve banks.² Correspondents, moreover, had no troublesome laws of eligibility. Even within a district, the desire to reduce the importance of correspondent banks justified low rates, for banks in the financial centers advanced funds to others in the same reserve district. Frequently rates have been raised in order to discourage member banks from lending to those outside the district, and to drive member banks to their reserve banks rather than to their correspondents, thus giving the former control of the situation. But it should be emphasized that the re-

¹ *F.R.A.*, 1915, p. 5. Harding made a similar statement in November, 1916. *C.F.Chr.*, 1916 (103), pp. 1648-1649; cf. B. H. Beckhart, *op. cit.*, pp. 204-206.

² In proposing penalty and (hence) non-uniform rates, Governor Seay recognized the danger of thus stimulating the business of correspondents. *Proceedings*, October, 1922, I, 123-125; cf. A. Youngman, "The Efficacy of Changes in the Discount Rates of the Federal Reserve Banks," *American Economic Review*, 1921, p. 475.

lation of the Bank rate in the West and South is to be considered in relation to the customer rates of large correspondent banks rather than to reserve bank rates in the East. My point is that outside banks compete with private customers for the funds of the city banks.

The War also made the enforcement of uniformity necessary, for rates were adjusted not according to variance in the different districts, but to the coupon rates on securities.¹ One may conclude that if Bank rates are to be related more or less to market rates in the district, they would be high in the South and West and low in the East; but this does not solve the problem.² The differences in rates between large and small communities in the same district are much larger than those between the cities of similar size in different districts, although the average is lower in the East. In the first few years of Federal reserve history, an active demand for rediscounting arose in the agricultural districts. Uniform rates may have stimulated that demand, for low rates in the South and West were the result of a system of uniformity. Perhaps rates were established at a low, and uniform, level in order to stimulate demand.

In 1920-21, the tendency was away from uniform rates,³ although in the early part of 1920, uniformity was still the rule.⁴ Reserve banks seem to have gained the ascendancy in their struggle for autonomy, or at least the Board appeared to be afraid to dictate specific measures discouraging the demand for reserve credit.⁵ Consequently several banks relied largely on discretion, the New York Bank and several others raised their rate to 7 per cent, and several banks introduced progressive rates. But although individual banks were free to choose their weapon, the reserve banks were not free of outside pressure. Progressive rates in one district were reflected in

¹ *Mim.L.S.*, 1919 (10), X-1459, p. 188.

² In opposing an increase of rates in New York early in 1919, Governor Strong was favorable to a higher rate in other districts where market rates were higher. *Proceedings*, March, 1919, p. 165.

³ At the Conference of Federal Reserve Agents of October, 1919, it was agreed that uniform rates were not necessary in the future; during the War, the rate on Liberty loans was controlling. *Mim.L.S.*, 1919 (11), X-1719a, p. 870.

⁴ *F.R.B.*, 1920, pp. 2, 447.

⁵ However, in 1920, the following remarks were made: Wayne of the Philadelphia Bank (on the occasion of an increase in rates by one reserve bank): "... we get a suggestion from the . . . Board that they will approve a raising of rate for our district and that usually goes through." Governor Harding of the Board: "Not a suggestion, but a mere categorical statement of fact. . . ." U. S. Senate Document No. 310 (67:4), 1923, p. 18.

pressure in neighboring districts and were followed by the adoption of similar measures; or a 7 per cent rate in New York resulted in a reduction of accommodation by correspondent banks, and hence additional demands in other districts.¹ Pressure for uniform rates was also felt when inter-reserve bank rediscounting became a factor in equalizing reserves. Although the consensus of opinion seems to have been that rates to member banks charged by reserve banks borrowing from other reserve banks should not be determined by those charged by the creditor reserve bank to its members, it is nevertheless apparent that reserve banks could not easily borrow from a reserve bank that was charging its members 7 per cent when the debtor reserve banks enforced a 6 per cent rate.²

In the period of liquidation, the Board withheld its support to reductions of rates where reserves were low and liquidation had not made much progress; hence in the years 1920 and 1921, uniformity was not the rule.³ Politicians protested at the higher rates in the West and South, and in defence of the rate policies, Governor Harding pointed out that the South and West had profited from previous low rates in New York, and if the principle of uniformity were accepted, stringency in New York would give rise to higher rates elsewhere.⁴

In 1922 authorities seemed once more inclined to adopt uniform rates, and in its *Annual Report* for 1923, the Board proclaimed the principle of uniformity.⁵ From 1923 to 1928, those who supported

¹ *Proceedings*, October, 1920, I, 49, 54, 82, 96-97; U. S. Senate Document No. 310 (67: 4), 1923, p. 19.

² Governor Harding said that the borrowing reserve bank should not be able to borrow at a profit and the lending bank should not be required to lend to other reserve banks at rates below the charge to its member banks. *C.F.Chr.*, 1922 (114), p. 467. Platt said that it was not just that the Boston Reserve Bank should charge 7 per cent to its member banks and lend to western reserve banks at 6 per cent. *Ibid.*, 1920 (111), p. 1137. The Governors' Conference disapproved of the proposal that a borrowing reserve bank should be compelled to charge member banks rates at least the equivalent of the rate paid for advances from other reserve banks. *Proceedings*, October, 1920, II, 350.

³ *C.F.Chr.*, 1921 (113), p. 1936.

⁴ *Ibid.*, 1922 (114), p. 467. (Letter of Harding to McLean.) Cf. comments on Senate Resolution No. 335. *Mim.L.S.*, 1922 (17), X-3507b, X-3508, pp. 1047-1048.

⁵ *F.R.B.*, 1922, p. 769. In pointing out that the Federal reserve rates fluctuated within the narrow limits of 4.42 to 4.50 per cent in 1923, the Board commented as follows: "It follows that the Federal Reserve Board, in approving the maintenance by all Federal reserve banks of rates at a uniform level practically throughout the year, was guided by no mechanical rule concerning the necessity of maintaining a fixed and invariable relationship between reserve bank rate and member bank customer rates."

the theory apparently had their way,¹ although there were occasions when authorities seemed to neglect the principle. Thus in 1924, the New York Bank reduced its rate below the level current in the rest of the country, and in 1925 it refrained from raising its rate when others were raised.² But such movements were infrequent, and it was said as early as 1924 that the New York Bank dominated the situation.³ The struggle of the New York Bank and the Board to enforce uniformity in 1927-28 has attracted wide attention.⁴ Yet in 1928, Governor Young announced that the reserve banks were not bound by the principle of uniform rates.⁵ In 1929, however, it is contended by the *Journal of Commerce* that western banks were apparently compelled to raise their buying rates to the level current at the New York Bank.⁶ From 1931 on, the principle of uniformity seems to have been given up.

Frequent attacks have been made on the principle of uniform rates: Glass and Willis have been especially critical.⁷ They have contended that uniform rates have made it impossible for the West and South to retain their funds, inducing the movement of bankers' balances and speculative funds to the financial centers. Certainly reserve banks have frequently raised their rates in order to prevent the loss of funds to other districts, and they have reduced their rates

F.R.A., 1923, p. 7. The Board added, however, that rates need not be uniform. *Ibid.*, p. 9. Cf. *C.F.Chr.*, 1923 (116), p. 749. Chairman Rich pointed out in 1922 that the reserve banks were to be divided into three groups on the basis of monetary conditions; the reserve banks in each group had similar rates, varying from 4½ to 5½ per cent. J. H. Rich, "Expansion and Contraction from the Federal Reserve Standpoint," *Annals*, 1922 (99), p. 182.

¹ Warburg was critical. *C.F.Chr.*, 1923 (116), p. 372.

² In commenting on a reduction of rates in New York in 1924, which was the first change from a uniform level of 4½ per cent in fourteen months, the *Journal of Commerce* referred to the "newly announced policy of the Board to exercise its discretion and judgment in determining credit questions rather than to be bound by hard and fast rules." *C.F.Chr.*, 1924 (118), p. 2129; cf. *ibid.*, 1924 (119), p. 652; *F.R.A.*, 1925, p. 6.

³ Statements were made by Governors Harding of Boston and Norris of Philadelphia to the effect that their markets were subsidiary to New York. *Proceedings*, November, 1924, pp. 197-199.

⁴ *C.F.Chr.*, 1928 (126), pp. 965-966; *Annalist*, 1928 (32), p. 42.

⁵ Hearings: *Brokers' Loans* (70: 1), 1928, p. 71. This announcement was preceded and followed by increases in rates outside of New York to prevent the movement of funds to New York. *C.F.Chr.*, 1928 (126), pp. 455, 519, 2418.

⁶ *Ibid.*, 1929 (128), p. 1172.

⁷ Hearings: *Sale of Farm Loan Bonds* (67: 1), 1921, pp. 34-35; Hearings: *Brokers' Loans* (70: 1), 1928, pp. 21-23; Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 172.

in order to maintain their share of the country's business.¹ Undoubtedly, also, relative rates determine to some extent the amount of business one reserve bank does as compared with another.² But the point raised by Willis and Glass involves more fundamental issues;³ it is made on the assumption that low rediscount rates in the West and South have depressed market rates and hence banks have moved their balances to other commercial centers. Authorities are not disposed to agree that the level of the rediscount rate has an important effect on the level of money rates. Moreover, relatively high discount rates in the West and the South would have strengthened the position of correspondent banks, reduced the influence of reserve banks, and interfered with the effective functioning of Glass's regional principle.

From the very beginning, the aim of the Board was to introduce a measure of uniformity of Bank rates throughout the country; this task was made easier by the willingness of reserve officials and politicians from the South and West to cooperate and by the important influence exerted by the Treasury in the years 1917-19. But when important measures of control were necessary in 1919-20, sharp differences arose concerning the weapons to be used, and reserve banks obtained a larger measure of autonomy. Rates were no longer uniform over the country, and in the period of liquidation, reserve banks in the West and South were compelled to maintain high rates

¹ Thus, in 1923, the New York, San Francisco, and Boston Banks raised their rates to the level of reserve rates elsewhere and thus discouraged outside borrowers (through correspondents) from using their resources. The authorities were thus able to test the character and soundness of the credit demand by having obligations of borrowers passed upon in their own locality. *F.R.A.*, 1923, p. 4.

Reed says that reserve banks were hampered in 1928 because an increase in rates in one district was likely to be followed by a loss of business to other districts. H. L. Reed, *Federal Reserve Policy, 1921-30*, pp. 135-136, 141.

² Burgess argues that the failure of other reserve banks in 1927 to reduce their rates within a short period of the reduction in New York resulted in a loss of approximately 80 millions by the New York Bank to other reserve banks; but his comparison of seasonal movements in the years 1925-27 is not convincing, for Burgess merely studies the loss of gold by the New York Bank, and *exports* were especially troublesome in 1927. W. R. Burgess, "The Money Market in 1927," *Review of Economic Statistics*, 1928, pp. 21-22. The whole episode apparently involved much friction. Thus, ex-Governor Platt contends that the enforced uniformity resulted in the movement of cash to New York. Perhaps the reply of the New York Bank would be that it thus recouped part of its losses. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 213.

³ Hardy rightly argues that potential borrowers in the West can still offer higher rates and therefore they are not really deprived of funds. C. O. Hardy, *op. cit.*, p. 306. One may go further and say that the reduction in rates is an advantage to borrowers.

for a relatively long period, because they had not been successful in effecting liquidation. Political pressure and a tendency to make fuller use of the cheap facilities of eastern reserve banks probably explain the increase of rates in the East in 1923, and the introduction once more of uniform rates.¹ From 1923 to 1927, there were occasional movements by individual reserve banks, but these are easily explained by the greater sensitivity of the New York market; when expansion was desired, the impetus was given by a reduction of rates in New York. If that stimulus was inadequate, other reserve banks were requested to reduce their rates. The unforeseen and unfavorable results of a cheap money policy in 1927 — a policy that was imposed, consistently with the policy of uniform rates — on other banks by the New York Bank and the Board brought about a partial repudiation of its policy by the Board in 1928. Banks outside New York were allowed to increase their rates in 1928 in order to retard the flow of cash to New York; but since the New York Bank on the whole conformed to the changes introduced elsewhere, the principle of uniformity was not seriously impaired.

The most detailed discussion of the controversy between the New York Bank and the Board, concerning the former's repeated proposals in the first half of 1929 for an increase in the Bank rate, is to be found in a memorandum written by Hamlin, a member of the Board.² In this instance, the New York Bank, contrary to its attitude in 1927, was proposing that a reserve bank be given a free hand in determining *its* rate, more or less independently of those in force elsewhere.

Hamlin is critical of the New York Bank for its excessive purchases of acceptances in the latter part of 1928; but it is not clear from his memorandum whether faulty administration on the part of the Bank is the explanation, or whether the Board and the New York Bank were jointly responsible for the large purchases induced by the low rate set jointly by them.

Early in 1929 Dr. Miller suggested that a warning be issued to banks against the use of reserve credit for speculative purposes; and this suggestion bore fruit in the famous announcement of the Board in February, 1929. The Reserve Bank of New York found this pro-

¹ Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 70.

² Discount Rate Controversy between the Federal Reserve Board and the Federal Reserve Bank of New York. *Mim.L.S.*, 1930, (November), x-6737, pp. 278-337.

posed program of moral suasion unacceptable and offered in its place a suggestion for higher rates.

After repeated proposals for an increase in rates, the New York Bank modified its position in the middle of 1929. A powerful element in the Bank led by Mitchell was prepared to give up its demand for an increase in rates if the Board would support a policy of monetary ease: the banks had become so frightened that they refrained from borrowing needed funds. Apparently the Board now admitted that its policy of moral suasion had been so successful that it was necessary to discontinue the use of the weapon: was the policy then successful? Hamlin does not make it clear why the rate was increased to 6 per cent in August; for the other demands of the New York Bank were met, and he argues that they were willing to withdraw their application for an increase in rate. (Governor Harrison, however, still favored an increase.) Undoubtedly the increase in the New York rate was of limited significance in view of the fact that the buying rate was reduced.

Hamlin's memorandum leads me to conclude that the New York Bank was not free of error as I had previously supposed. Its demands for higher rates were not presented in a manner to invite approval: reasons were not given at first, yet immediate approval was demanded. Nor were the results of the campaign of moral suasion wholly unsatisfactory. Brokers' loans declined and commercial loans increased. The reduction of reserve credit, however, is not so significant, in view of the fact that the amount of acceptances outstanding declined by 300 millions, as Hamlin assumes; for the reduction of acceptances may be held to be the explanation of the liquidation. Besides, the fact is that reduction of brokers' loans is not satisfactory evidence of the success of the program of moral suasion: attention ought to be concentrated on all security loans; and commercial loans may be obtained for the purpose of increasing speculation.¹

Reserve banks, in short, have been influenced in their discount policies by the rates in effect in other districts, particularly in neighboring districts.² A relatively high level of rates in the West or

¹ More on this episode in volume II.

² In replies to the questionnaire sent out by the Glass Committee (1931), reserve banks have made it clear that they are still very much interested in the rates charged by other reserve banks although they maintain that national conditions should not determine their rates. Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 756-764, 777-779.

South has reduced the business and influence of the reserve banks in those sections and increased the volume of business of correspondents; and they, therefore, have been under pressure to conform to the rates of those in financial centers. When the pressure on correspondents has been strong, they in turn have appealed to the New York Reserve Bank, or perhaps to some other reserve bank in a financial center; and requests for additional accommodation to be traced to borrowing by outside banks have occasionally been followed by increases in Bank rates in financial centers. In this manner, part of the burden of excessive demands in the East is shifted to other reserve banks. Thus a rate that conforms to the New York rate is a low rate and stimulates excessive rediscounting in agricultural communities; but higher rates in the West and South merely result in a shifting of demands to correspondents.¹ Of the two possibilities, uniform rates seem more desirable, for thereby the influence of and control by reserve banks are increased; on the other hand, if rates are higher in the West and South, control is shifted to a greater extent to the New York Bank and the large commercial banks in the financial centers.

2. UNIFORMITY AND CONTROL — RESERVE BANKS OR BOARD?

(a) *Review and Determine*

If the Board exercises control over rates, the possibility of a uniform system is greater than if the reserve banks are autonomous in the exercise of their authority to set them. The extent of authority of the Board over rates depends in large part on the interpretation of the phrase "review and determine" in that provision of Section 14 which bestows upon reserve banks the authority to establish rates subject to such action by the Board.²

¹ It may be pointed out that the equalizing tendencies are brought about not only by shifts of demands from local reserve banks to correspondents in the financial centers, but large corporations shift their demands from commercial banks in their communities to banks in the financial centers. These movements are later reflected in increased borrowing at reserve banks in the financial centers. Hearings: *Branch Banking* (71: 2), 1930, p. 708; Federal Reserve Bank of Minneapolis, *The Federal Reserve Bank and the Farmer and Stockman* (1921), p. 8. Cf. T. E. Gregory, *The Present Position of Banking in America*, p. 30.

² Wingo, a member of the Banking and Currency Committee of the House (1913-14) informs us that the Committee did not intend that the Board assume any initiative in the formulation of a rate policy. Hearings: *Branch Banking* (71: 2), 1930, pp. 662-663.

In 1919 the Attorney-General was requested to make a ruling on the question of the Board's right to initiate a change in rates. The occasion of this request apparently was that one reserve bank refused to comply with the Board's desire for a continuance of current rates.¹ The Attorney-General based his decision largely on the assumption that the phrase "to determine" had been added in the course of passage of the Federal Reserve Act through Congress, and he therefore concluded that to review and determine was in the eyes of Congress a greater power than to review. But his facts are not accurate, for the entire phrase was in the bill introduced in Congress. A second consideration, that the philosophy of the System required the exercise of this power by the Board, is inconclusive to those who have been impressed by the important place given to regionalism.² Elliott, consulting counsel of the Board, agreed with the Attorney-General. He argued that the specific authority to review and determine excluded this power from those which might be included in the incidental powers given to the reserve bank; and, therefore, whenever a bank did not establish a rate consistent with the requirement that rates be set with a view to "accommodate commerce and business," the Board might request the reserve bank to modify its rate.³ Secretary Glass not only approved of the decision but went even further. According to him, the power to "review" had been held as adequate by some members of the Banking and Currency Committee in 1913; but when a few members contended that the power should be stated more explicitly and strongly, "determine" was added. Glass added that it was intended that the Board should have complete jurisdiction over rates; that the intention of Congress was evident from the fact that the Board had been given the more important power to fix rates for discounts between reserve banks; and that if the Board did not possess the authority to fix rates the provision that the Federal Advisory Council was to make recommendations to the Board on this subject might then be questioned.⁴ A comparison of Glass's letter to the Attorney-General and the latter's decision clearly reveals where the latter obtained his inspiration. Glass's argument was weak. A study of the evolution of the Act shows that it was not intended that the Board

¹ *C.F.Chr.*, 1927 (125), p. 1536.

² *Mim.L.S.*, 1927 (27), X-3107a, pp. 164-167.

³ *Ibid.*, X-4945a, pp. 162-163.

⁴ *Ibid.*, X-4945, pp. 157-160.

exercise such control over rates. When the reserve banks were given control of rates, the change was justified on the grounds that the Board might yield to political pressure and introduce unduly low rates; the Board, it was felt, should not be allowed to dissipate the resources of reserve banks. Moreover, the recommendations of the Federal Advisory Council might be helpful even if the Board's authority were limited to the review or approval of rates suggested by the reserve banks. Glass regretted his statement of 1919 when, in 1927, the Board initiated a reduction of rates in Chicago, on which occasion he said that the Board had no arbitrary authority over rates, that when the Board had introduced a rate against the wishes of a reserve bank once before, it had expunged the record of its action from its minutes lest this be taken as a precedent.¹ Glass's views as Secretary of the Treasury were different from his views in 1927, when the Board's action was in support of the New York Bank's policy of low and uniform rates.²

Perhaps the most revealing study of the subject is one undertaken in 1927 by Governor Harding of the Boston Reserve Bank.³ According to him, the reserve banks' authority to *establish* rates and the Board's authority to *review* had been interpreted in the early years as the authority to *propose* and to *decide*. The Board never formally accepted the view of the reserve banks that it exhausted its powers until a new rate was submitted, once it had approved a rate. The vital question is whether the Board's authority is continuous. Harding contended that the Board's powers are regulatory rather than initiatory. To establish, he said, is positive, not tentative; the Board could hardly review a tentative proposition.⁴

Harding has rather consistently held this position; in 1920 and 1921, however, he admitted that the Board might compel a reserve

¹ *C.F.Chr.*, 1927 (125), p. 1536.

² Hardy presented the issues well: the agricultural districts feared that a reduction in rates would deprive agriculture of funds and enrich the speculators. He rightly points out that the importance of small changes in rates has been exaggerated by both sides. Also, he argues that declining prices required a corrective of a reduction in rates, and increased speculation required an increase. C. O. Hardy in *Editorial Research Reports*, November, 1927, pp. 895-898.

³ W. P. G. Harding, "Federal Reserve Rediscount Rates," *American Bankers' Association Journal*, October, 1927, pp. 217-220.

⁴ In 1928, he said that the resignation of Governor Crissinger was the result of the Chicago incident and that the Board was not likely in the future to introduce changes in rates against the wishes of the reserve banks. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 69.

bank to change its rate if it persisted in maintaining a rate clearly not warranted by general conditions, but that the Board ought to use this power with discrimination.¹ In 1920 he objected to the assumption by the committee of reserve banks of the responsibility for introducing a new system of rates,² and in 1921 he wrote to Senator Sheppard that the Board had never modified a proposal of a reserve bank over its protest. Again in a letter to Senator Owen he wrote as follows: "The Board has never sought to interfere with or to influence the Federal reserve banks in the proper exercise of those statutory powers which were conferred solely upon them and the discount rates in effect have been approved by the Board after they had been proposed by the directors of the Federal reserve banks."³

(b) *Technique*

The Federal Reserve Board stated its position rather strongly in an informal ruling of May, 1915. Reserve banks were to submit rates weekly, the Board would telegraph its decisions, and any changes would be communicated informally to other banks. Such communications were not to be interpreted as suggestions, although the Board reserved the right to suggest changes.⁴ The Board's legal position was not impregnable; in fact, the dominating personality on the Board declared that the omission of a provision in an early draft of the Act that rates be established *each week or as much oftener as required*, had seriously impaired its control.⁵ But the Board now attempted to obtain continuous control by requesting that the rates in force be reconsidered weekly. In 1918 the Board requested telegraphic instead of mail reports,⁶ and in the years 1918 and 1919, frequently complained of the failure of reserve banks to transmit their weekly reports on rates. Finally, in a memorandum to the chairmen of the reserve banks dated March 4, 1920, the

¹ *Addresses and Statements of W. P. G. Harding*, No. 16. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 278-279. Jay has expressed a similar opinion. P. Jay, "The Federal Reserve System after Ten Years," *Acc. Bull.*, June, 1925, p. 15.

² "I do not believe that any Federal reserve bank would care to lose its autonomy to the extent of putting its policies in the hands of a committee representing all of the Federal reserve banks, but I think they would prefer to stand on their own basis and carry out the intent of the Act, solving their own problems on their own responsibility." U. S. Senate Document No. 310 (67: 4), 1923, p. 53.

³ W. P. G. Harding, *Formative Period of the Federal Reserve System*, pp. 197-198.

⁴ *F.R.B.*, 1915, p. 13.

⁵ P. M. Warburg, *op. cit.*, I, 490-491.

⁶ *Mim. L.S.*, 1918, X-1307.

Board virtually admitted failure to enforce a continuous control of rates: since the Board no longer considered recommendations for changes in discount rates upon a stated day each week and was at all times prepared to consider such recommendations in its regular meetings, the Board requested that recommendations be sent only when a change was proposed.¹ But in 1926 the Board once more asserted its authority and requested information on any action taken by reserve banks at each meeting even if no changes were recommended.² The Board also requested from the reserve banks a statement of the reasons for their recommendations.³ One of the sources of irritation in 1929 was the refusal of the New York Bank to give reasons for its proposal to increase rates.⁴

(c) *The Board Controls*

In general, the Board seems to have exercised a considerable degree of control over rates throughout the history of the System,⁵ although at intervals, it is true, the policies carried through seem inspired by the New York Bank. In the purchase of bankers' acceptances, however, reserve banks were allowed important discretionary powers, for the actual rate of purchase was determined within broad limits; and the Board was inclined to put the responsibility for abuses on the reserve banks.⁶ Recently the Board has assumed a more thoroughgoing control of the buying rate,⁷ and even in the war period apparently dictated a relatively high buying rate.⁸ Moreover, by approving a rediscount rate on acceptances below the buying rate, the Board has in the past reduced the significance of the buying rate; but in so far as members preferred sales of acceptances at unfavorable rates to rediscounting at a more favorable rate, the buying rate remained significant. Another factor that has strengthened the position of the Board has been the threat of a tax

¹ *Mim.L.S.*, 1920 (12), X-1852, p. 225.

² *Ibid.*, 1926 (24), X-4493, p. 60.

³ *Ibid.*, 1928 (29), X-6151, p. 302.

⁴ Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 84, 171-173.

⁵ It is difficult to understand a statement made by Governor Talley of the Dallas Bank to his stockholders (member banks): he could not recall a single instance when the Federal Reserve Board made suggestions concerning rates or when the discount rate proposed by the Dallas Bank was not instantly approved. *Dallas Reserve Bank, Proceedings*, 1928, p. 16.

⁶ *F.R.A.*, 1919, p. 22; *ibid.*, 1922, p. 18.

⁷ *C.F.Chr.*, 1929 (128), p. 1172. (Comments of *Journal of Commerce*.)

⁸ *Boston R. B. Ann.*, 1917, pp. 13-14.

on note issues, a power specifically granted which, if exercised, would have repercussions similar to an increase in the discount rate.¹ If reserve banks were to impose an additional charge for notes issued to member banks, an important part of the credit obtained from reserve banks would become more costly.

At the inception of the System, the reserve banks appealed to the Board for suggestions concerning discount policy. "A study of the existing state of affairs satisfied the Board that at the start and until the banks could get a firm footing it should act with prudence and conservatism, and it was consequently voted to fix the discount rate at from 5½ to 6½ per cent."² Some months later there followed an appeal for a reduction of rates; this application was at first refused and later granted. In introducing commodity rates, the Board announced to reserve banks that it was prepared to accept applications for the establishment of rates at a designated level.³ Thus the Board assumed the initiative in the determination of rates.

During the war period the Board continued to control the rate structure. Thus in 1917, announcement was made that it would establish a 3 per cent rate for member banks' notes secured by Government securities for any bank requesting it, and suggested to reserve banks that rates on acceptances be raised above the market level.⁴ Apparently in June, 1918, the Board discussed the possibility of introducing higher rates; but Hamlin preferred to leave the introduction of changes at the discretion of the New York and Chicago Banks, since they were conversant with conditions.⁵ In December, 1917, the Board made the following comment: "Changes in rates of discount at Federal Reserve Banks have been under advisement by the banks and by the Federal Reserve Board for some time past, and after careful consideration on November 26 the Federal Reserve Board suggested to the Federal Reserve Banks that the time had come to increase their schedules in the near future, due consideration in fixing the proper movement being given to local conditions."⁶

In the early post-war period, the Board continued to exercise a moderate influence on rate policy although there was an increasing

¹ *Mim.L.S.*, 1920 (12), X-1914a, pp. 382-386.

² *F.R.A.*, 1914, p. 10; *C.F.Chr.*, 1914 (99), p. 1492.

³ *F.R.B.*, 1915, pp. 310-312.

⁴ *Ibid.*, 1917, p. 425; *Boston R. B. Ann.*, 1917, pp. 13-14.

⁵ *Mim.L.S.*, 1918, X-1035. (Letter of Hamlin to Miller.)

⁶ *F.R.B.*, 1917, pp. 922-923.

tendency, especially in public statements, to put the responsibility on reserve banks. Undoubtedly the Board was becoming sensitive to criticism and was preparing to counter political attacks. Apparently, again in 1919, the Board refused to approve increases suggested by reserve banks, and took a similar position early in 1920.¹ The Board hoped "that the exercise of a wise discretion on the part of the member banks in making loans would make further advances in the Federal Reserve Bank rates unnecessary."² Early in December, 1919, the Board notified the Federal reserve banks "that it was ready to consider their suggestions for rate changes and that it would approve an advance in the rates for paper secured by government obligations other than Treasury certificates of indebtedness."³ Perhaps the dissatisfaction of the Board with the extent of its control was best reflected in the provision in the Phelan Bill which provided that the progressive rates were to be "subject to the *approval*, review and determination of the Federal Reserve Board."⁴ Also, the Board inadvertently referred to an increase in rates in 1920 that had been "*established and approved*" by the Federal Reserve Board.⁵ In 1920, Wayne of the Philadelphia Bank said that if one bank raised its rate, "we get a suggestion from the . . . Board that they will approve a raising of rate for our district and that usually goes through." Harding's reply was that rather than a suggestion the Board made a categorical statement of fact.⁶

Yet in the period of liquidation, the Board and the reserve banks seemed to be at odds over discount policy.⁷ The Board could not so easily enforce its policy of lower rates, which required the submission of new ones by reserve banks, as it could enforce a policy of stability when the reserve banks submitted a schedule of higher rates. Apparently the Board was prepared for a reduction of rates before the reserve banks were; but even the Board was not in favor of lower rates as soon as were the politicians, and consequently in public was compelled to place the responsibility for the rate struc-

¹ *Proceedings*, October, 1920, I, 44.

² W. P. G. Harding, *Formative Period of the Federal Reserve System*, p. 171.

³ *F.R.A.*, 1919, pp. 3-4.

⁴ *F.R.B.*, 1920, p. 448.

⁵ *Ibid.*, p. 557.

⁶ U. S. Senate Document No. 310 (67: 4), 1923, p. 18.

⁷ Early in 1921, the Board warned the reserve banks not to make any predictions concerning changes of rates: the Board had the final authority although they have always allowed the reserve banks to take the initiative. *Mim.L.S.*, 1921 (14), X-3077, p. 320.

ture on the reserve banks.¹ It brought pressure to bear on reserve banks, and apparently the Chicago Bank was in the forefront in the opposition.² The Board favored reductions when liquidation had been carried through to a reasonable extent and the monetary situation had improved.³ Dr. Miller said later that the Board recognized the necessity of lower rates before any bank but Boston.⁴

In this period there are several episodes which reveal the methods used by the Federal Reserve Board in carrying through its rate policy. For example, in a letter to Governors and Chairmen, the Board enclosed a letter from the New York Bank and Under-Secretary of the Treasury Gilbert, who had requested higher rates on loans secured by certificates; and herein the Board pointed out that the St. Louis and San Francisco Banks imposed a 6 per cent rate on certificates.⁵ In reply to a suggestion for commodity rates, Chairman Rich of the Minneapolis Bank revealed once more the method of procedure: he had informed his Bank that several members of the Federal Reserve Board were of the opinion that the Minneapolis rate was too high, and that the Bank agreed to reduce it.⁶ Perhaps the object of the Board's suggestion for commodity rates in 1921 was to bring pressure to bear on recalcitrant reserve banks.

In recent years, disputes concerning the control of discount policy have existed not so much between the Board and the reserve banks as between the Board and the New York Bank on the one hand, and a few of the reserve banks in the West on the other. Quite properly, a member of the Board in 1927 said that credit control is exercised through the New York Bank rate, although sometimes the Boston, Philadelphia, Cleveland, and Chicago banks play a part.⁷

¹ *C.F.Chr.*, 1922 (114), p. 467; also see comments of the Comptroller of the Currency, who proposed that the Board request reserve banks to establish a maximum rate of 6 per cent. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 232.

² *C.F.Chr.*, 1921 (113), pp. 476, 586.

³ *Mim.L.S.*, 1922 (16), x-3400, pp. 576-577; *C.F.Chr.*, 1921 (113), p. 1003. Miller and Crissinger of the Board both seemed anxious to bring rates down.

⁴ Hearings: *Stabilization* (69: 2), 1926, II, 647-648.

⁵ *Mim.L.S.*, 1921 (14), x-3031, p. 124.

⁶ *Ibid.*, 1922 (17), x-3513, p. 1075.

⁷ *C.F.Chr.*, 1927 (125), pp. 175-176. Governor Harding said that the New York rate was the key rate. When the New York and Chicago rates are reduced, there is a disposition on the part of other reserve banks to follow. The West and the South demand uniformity; Boston cannot maintain a rate below that of the New York Bank or Boston banks would be swamped with requests for accommodation. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 70.

In 1923 the Board still displayed initiative: it requested that the reserve banks carrying a substantial portfolio of securities ought not to submit an application for an increase in rates until they had substantially liquidated their holdings;¹ and a member of the Board later boasted that mild increases advocated by the Board had been adequate.² The policy of lower rates in 1924 failed to draw the unstinted support of the Board, although Dr. Miller was present at the meeting of the New York Bank and approved of the reduction at that time.³ It was rumored that western reserve banks disapproved.⁴ Perhaps the Board, the New York Bank, and the Boston Bank fell into disagreement late in 1925: the Boston application for an increase was not approved for several months while the New York application was approved in a few minutes.⁵ The 1927 episode was a repetition of 1924 except that Chicago and several other banks were more recalcitrant and the Board was forced to initiate a reduction over the protest of Chicago.⁶ In 1928, however, Chicago and other banks were in the van of the movement to raise rates, whereas New York at first proceeded rather tardily.⁷ When New York and other banks were prepared to take action in 1929, the Board objected, apparently having come to the conclusion that the time for high rates had passed.⁸ In 1930, significantly enough, the Governor of the Board announced that rates had been reduced at the initiative of the reserve banks.⁹ As might be expected, there has been less uniformity in the Bank rate than usual in the years 1930-32.¹⁰

3. CONCLUSION

The Reserve Board has exercised a control of rates, clearly more thoroughgoing than was intended by Congress, that frequently encompassed the introduction of changes in rates by the Board.¹¹

¹ *Mim.L.S.*, 1923 (18), x-3696, p. 277.

² *Proceedings*, November, 1924, pp. 237-238.

³ *Ibid.*, p. 254.

⁴ *C.F.Chr.*, 1924 (119), p. 764.

⁵ Hearings: *Stabilization* (69: 2), 1926, II, 640-644; *Boston R. B. Ann.*, 1925, pp. 9-10; *C.F.Chr.*, 1926 (122), p. 1396.

⁶ *Ibid.*, 1927 (125), pp. 598, 703, 2471; cf. P. M. Warburg, *op. cit.*, I, 489-495 for a discussion of the history of this controversy.

⁷ *C.F.Chr.*, 1928 (126), pp. 2418, 2545.

⁸ *Ibid.*, 1929 (128), pp. 3392, 3442; cf. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 141.

⁹ *Mim.L.S.*, 1930 (32), x-6544, p. 370.

¹⁰ *F.R.B.*, 1931, p. 502.

¹¹ Willis and Steiner conclude that the Board has exercised more control over rates than was intended. They also point out that when proposals of reserve banks have

Although the Board has but infrequently initiated changes disagreeable to the reserve banks, it has actually taken the initiative by suggesting to reserve banks when changes would be acceptable. Thus the Reserve Board has interpreted broadly its right to review and determine, frequently usurping the banks' power to establish rates. In the first few years of the System's history, the Board's mission was to obtain a measure of uniformity in rates; its success is to be attributed to the vigorous manner in which it asserted its right to a continuous veto power over rates and, later, to the increased authority and prestige that necessarily were bestowed upon it with the entry of the United States into the War. In the period of inflation, the Board could easily assert its authority: for discount rates were determined by the rates on Government securities; and since the point at issue was usually whether an increase in rates was necessary, and since the Board, dominated by the Treasury and influenced by politicians, naturally favored moderate rather than high rates, it had only to refuse to approve an application for higher rates in order to control the situation to its own satisfaction.¹

But in the period of liquidation, the Board was not so uniformly successful. Politicians clamored for early reductions in rates and for uniform rates; reserve banks, particularly those in financial centers, objected to reductions that were not justified by a large measure of liquidation and an improved reserve position. Although the Board took a moderate position, it seemed at times to be unable to convince reserve banks of the need for a reduction of rates. Just as the Board, sensitive to the demands of the public, was inclined to delay when increases in rates were called for, it was in the van when a reduction in rates seemed likely. Unfortunately for the Board, reserve banks can more easily retain control of rates when a downward revision is demanded. The Board may then be attracted by other weapons of control. In the years 1920 and 1921, the Board's control over rates was perhaps at its lowest ebb. In part, the newly acquired freedom from Treasury domination, in part, the culmination of the reserve banks' struggle to deny the Board's power of

failed of approval, the existing rate structure has been maintained: another possible interpretation might have been that reserve banks could not continue to rediscount under these conditions. H. P. Willis and W. H. Steiner, *Federal Reserve Banking Practice*, p. 526.

¹ The situation was not dissimilar in 1929. The Board approved 24 requests for higher rates and disapproved 25 requests. Hearings: *Branch Banking* (71: 2), 1930, p. 657.

continuous veto over rates, and in part, uncertainty concerning the proper measures of control to be taken and a realization that it was political wisdom for the Board to assume a minimum responsibility — these factors probably explain that loss of control.

The Board once more began to assert its authority in 1922–23 and made the most vigorous use of its power to control in the years 1924–27, when it could count on the support and prodding of the New York Bank. Once more, domination by the Board was reflected in a campaign for uniform and low rates;¹ and when the plans of 1927 ended somewhat disastrously, the Board renounced the principle of uniformity, and temporarily it seemed that the Board might break with its tradition and be responsible for high money rates. But the Board soon assumed its usual rôle as the protector of legitimate industry, and continued to pay sufficient attention to the clause that discount rates be set with a view to accommodating trade and commerce.²

We may conclude that the result of the Board's usurpation in part of the reserve banks' authority to establish rates has been lower rates on the whole, increased dangers of inflation and speculation, less effective control, but a system that has made concessions to politicians which were probably necessary if we were to have any system, and a uniformity of rates that tended to strengthen the position of the reserve banks and perhaps stimulate the use of their resources.³

¹ For evidence of political interest in low rates, see *C.F.Chr.*, 1923 (116), p. 1714; H. P. Willis, "Will the Racing Stock Market Become a Juggernaut?" *Annalist*, 1924 (24), p. 541.

² Recently Harding said that the Board has always been more prepared to approve a reduction of rates than an increase. *C.F.Chr.*, 1929 (128), p. 1835.

³ Perhaps a word ought to be said here concerning the use of Federal funds. Banks borrow from one another the use of surplus cash at the reserve banks and other cash immediately available instead of borrowing from reserve banks. The result is that surplus reserves of banks are reduced to a minimum and reserve banks are called upon to lend less frequently. The practice of borrowing Federal funds — and this explains its relevancy here — tends to make rates more nearly uniform throughout the country. Thus a 3 per cent rate at the New York Bank and a 5 per cent rate at the San Francisco Bank will encourage borrowing in New York and the advance of Federal funds by New York banks to San Francisco banks, thus increasing the pressure on the New York Bank to raise its rate. The subject is discussed in B. C. Turner, *The Federal Fund Market*.

PART II

OPEN MARKET OPERATIONS

CHAPTER VII

OPEN MARKET OPERATIONS — HISTORY¹

I. EARLY POLICIES — HESITATION

BURGESS has pointed out that there was little discussion in 1913 of an investment policy for the reserve banks, for virtually all the outstanding securities of the United States Government were used as collateral against notes.² In the early years, dealings in United States Government securities were virtually restricted to those provided under Section 18 for the retirement of National Bank notes.³ It has also been held that the failure to provide for the purchase of two-name paper in the open market, a provision which had been excluded in the course of the passage of the Act, further impaired the effectiveness of open market operations.⁴ In addition, the possibility of an effective open market policy was further reduced as a result of the failure of important officials to understand its mechanism.⁵ Although the theory that open market operations were not designed primarily to offer competition for the money market or to depress money rates was thoroughly discussed in the period preceding the passage of the Act, many still viewed them as a means of forcing the money market to offer accommodation at a low rate.⁶ There were indications that the Board was not clear on the nature

¹ Numerous important problems relating to open market operations (and acceptance policy) are considered in the statistical part (Part IX) of this book (A. Investment Policies of Reserve Banks, Charts I-VII, pp. 720-759). In particular the diversities of policies and operations of individual reserve banks are discussed.

² *C.F.Chr.*, 1928 (127), p. 3341

³ *Boston R. B. Ann.*, 1916, p. 10; *ibid.*, 1917, p. 10; *ibid.*, 1919, pp. 14-15.

⁴ H. P. Willis, "The Federal Reserve System — A Retrospect of Eight Years," *Political Science Quarterly*, 1922 (37), p. 574. (Willis here comments on the elimination of two-name paper; elsewhere he is critical of this limitation.) Warburg, on the other hand, expressed the fear that the reserve banks were given too many liberties in dealing with the market. P. M. Warburg, *op. cit.*, I, 664-665.

⁵ McAdoo said that open market operations were provided so that the people of the United States might have recourse to the reserve banks. U. S. House Ways and Means Committee, Hearings: *War Finance Corporation* (65: 2), 1918, p. 68. Cf. *C.F.Chr.*, 1915 (100), p. 698; and *F.R.A.*, 1914, p. 156.

⁶ "Allies or Competitors?" *Annalist*, 1914 (4), p. 409; *C.F.Chr.*, 1916 (103), p. 1650; also *ibid.*, 1925 (120), p. 39.

and effects of open market operations. The Board seemed to harbor the notion that, by employing their resources in rediscounting, the reserve banks put resources at the disposal of trade and industry, but that open market operations were at the expense of these more productive uses.¹

On the other hand, a few authorities clearly perceived the significance and possible effects of open market operations. In the midst of the period of embarrassing ease of 1915, Governor Strong pointed out that if such monetary ease had developed at a later stage of the evolution of the System, the reserve banks would have disposed of securities acquired earlier in order to deprive the market of cash and prevent undue abundance.² Jay gave evidence in his first report that it was clear to him how the reserve banks might supplement the resources of the money market in periods of unusual demand.³ The Organization Committee expressed the view that open market operations were provided in order to assure the control of the domestic money market and equilibrium with foreign markets; and the Organization Committee discussed well the province of a *devisen* policy in central banking tactics.⁴

The dominant factor in the situation was not the undeveloped state of the theory of open market operations, which might have been costly had there been an opportunity for an investment policy of any significance, but rather the abnormal state of monetary ease following large gold imports and reductions of reserve requirements. Authorities had, in 1915, a grasp of the theory sufficient to assure them that large investments were not expedient, although the problem of obtaining adequate earnings had disconcerted them from the beginning.⁵ In the *Annual Report* for 1914, the Board was already cautious: it announced that when the regulations on investments were prepared, there would "be ample employment for all funds which experience may demonstrate the Federal reserve banks can safely and properly invest, at times when their funds should not be absorbed in responding to strictly agricultural, commercial, or industrial demands."⁶ In conceding grudgingly that the initiative lay with the reserve banks, the Board in November, 1915, threatened to exercise its right at any time to regulate such transactions

¹ *F.R.A.*, 1914, p. 16.

² *N.Y.R.B.Ann.*, 1915, pp. 14-15.

³ Preliminary Committee on Organization, *Report*, p. 82.

⁴ *C.F.Chr.*, 1915 (100), p. 109.

⁵ *C.F.Chr.*, 1915 (100), p. 1880.

⁶ *F.R.A.*, 1914, p. 16.

should they assume very large proportions or develop along undesirable lines.¹ The Board expressed itself clearly in its 1915 *Report*. "Up to the present time it is the judgment of the Board that the banks have acted prudently in abstaining from entering the foreign field or from engaging more actively in open market transactions than they have. Money rates have been unprecedentedly low, and any attempt of the Federal reserve banks to attract business by further reduction of their rates might only have produced a further depression of rates and increased the danger of inflation of credit without, at the same time, bringing additional business to the Federal reserve banks."² The attitude of the Board was reflected in a delay in the issue of regulations providing for the purchase of open market investments and in the restrictions imposed on the reserve banks.³

2. MORE POSITIVE POLICIES — 1916 AND 1917

Early in 1916, the Board seemed more inclined to encourage reserve banks to undertake open market operations. The explanation may be political pressure, or increased concern over earnings, or perhaps a stiffening of market rates. After pointing out that the object of introducing the section on open market operations was to enable the reserve banks to exert a steadying influence upon prevailing rates of interest and to provide an opportunity to cover expenses and pay dividends, the Board commented as follows: "The Federal Reserve Board does not wish to be understood as encouraging expansion of credit at times and under conditions when there should be contraction, but rather as holding the view that the Federal reserve banks taking cognizance of the conditions in their respective districts, should avail themselves of the powers granted by the Act as explained in our letter of October 8, 1915, just as they have done in connection with other open market powers conferred upon them."⁴ Warburg, who had been hostile to the open market purchases, now expressed approval of an increase in the volume of

¹ *F.R.B.*, 1915, p. 360; *cf.* pp. 39-40.

² *F.R.A.*, 1915, p. 6.

³ Warburg apparently was largely responsible for the failure of the reserve banks to take a more active interest in open market operations in the years 1915 and 1916. He was aware of the danger of inflation; but the reserve banks were apparently subjected to much pressure by those who were concerned over the failure to earn expenses. P. M. Warburg, *op. cit.*, I, 448-451, 632-635, 700-702.

⁴ *F.R.B.*, 1916, p. 15.

such operations.¹ Undoubtedly, in these early years the desire to develop a broad acceptance market played an important part in increasing open market operations.² In fact, at the time, most of the discussions related to acceptances rather than securities.

In the latter part of 1916 and 1917, the Board reversed its policy. It was deemed expedient to dispose of investments that had been purchased for the purpose of increasing income, for war was imminent;³ at this time the Board announced that sales should also be made to offset imports of gold and thus to reduce the danger of monetary ease.⁴ In the course of the War the reserve banks restricted their open market operations largely to relieving the money market when large transfers were made to the Treasury.⁵

In the war and early post-war years, open market operations played a relatively unimportant part in the policies of reserve banks. Adequate business was available and hence reserve banks were not forced to resort to open market operations in order to increase their earnings. Acceptances, however, constituted an important problem in 1919-20, and that problem will be discussed in Chapter XVIII. Operations in securities were of relatively limited significance during this period.⁶ In 1921, the problem of purchases of securities with a view to increasing earnings once more was raised, and that brings us to the beginning of the crucial period.⁷

3. EVOLUTION OF A POLICY

It will be recalled that in the early years the Board assumed the initiative in the determination of open market policy. Safeguards were introduced to protect against abuses in the purchase of municipal warrants, and regulations were issued tardily and with concurrent threats of interference should reserve banks carry on operations that were too extensive or along undesirable lines. In the purchase of acceptances, reserve banks retained a larger measure of autonomy, for it was considered necessary to assure a flexible sys-

¹ *F.R.B.*, 1916, p. 103; *cf.* *C.F.Chr.*, 1916 (102), p. 579 (Address by Willis).

² *F.R.A.*, 1923, p. 12.

³ *F.R.B.*, 1916, pp. 533-535. (The new policy was evident in the revised regulations.) *Cf. Ibid.*, 1917, p. 336; *F.R.A.*, 1917, pp. 1-2.

⁴ *F.R.B.*, 1917, p. 76.

⁵ *F.R.A.*, 1917, p. 5; B. Strong, *op. cit.*, p. 33.

⁶ In 1919, the Board suggested the possibility of increased direct contacts with the market in order to depress rates. *F.R.A.*, 1919, p. 527.

⁷ *Ibid.*, 1921, p. 692.

tem; the reserve banks were, however, controlled by eligibility regulations issued by the Board. Also, the Act provided that the Board could require reserve banks to purchase bonds from national banks within designated limits.¹ The Board had the authority to prescribe the rules and regulations under which reserve banks might carry on open market operations, and had interpreted that provision liberally; but the Board was apparently not satisfied that its legal authority was adequate, for in 1916 an amendment to Section 13 was introduced, which provided the Board with increased authority. It was stipulated that the purchase of bills receivable was to be subject to restrictions, limitations, and regulations imposed by the Board.² The legal position of the Board has not been clear.³ In the first place, the phrase "subject to rules and regulations" is inserted in such a manner in Section 14 that it is not at all clear that it relates to all of the important open market operations provided for in the remainder of the section. Secondly, the provision introduced in 1916 was inserted in Section 13, although all open market operations had been provided for in Section 14. But perhaps the absence of any provision for open market operations at that time in Section 13 necessarily means that it was intended to apply the phrase to the operations provided for in the following section.⁴ Dr. Miller, who has consistently fought for increased control of open market operations by the Board, demanded the exercise of more authority by the Board in 1922, contending that the operations were subject to its rules and regulations;⁵ but at public hearings in 1926 and 1928, he expressed a desire for powers in excess of those already conferred on the Board.⁶ He was apparently not impressed by the provision in Section 13 and based his

¹ Cf. *Mim.L.S.*, 1921 (15), x-3242, p. 1227, for example.

² *F.R.B.*, 1916, p. 440.

³ *Ibid.*, 1923, pp. 429-431.

⁴ Counsel of the Board in 1929 contended that the provision in Section 13 gave the Board adequate authority over all open market operations. He assumed that bills receivable — the term used in Section 13 — included notes and securities as well as bills of exchange. *Mim.L.S.*, 1929 (30), x-6260, pp. 212-214. In 1927, he had contended that the authority to prescribe rules and regulations applied to all transactions conducted under the authority of the first paragraph. *Ibid.*, 1927 (27), x-4980, p. 272. Governor Harding, however, said that the authority was derived from Section 14. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 70.

⁵ *Proceedings*, October, 1922, II, 386-387.

⁶ Hearings: *Stabilization* (69: 2), 1926, II, 675, 866-867; *ibid.* (70: 1), 1928, pp. 190-192. Hamlin, however, was satisfied that the Board had adequate powers. *Ibid.*, pp. 399-400.

argument wholly on the inadequacy of the authority bestowed by the phrase "rules and regulations."

In the post-deflation period, reserve banks began to purchase securities with a view to increasing their earnings, a policy which was condemned both by the Treasury and the Federal Reserve Board.¹ The Treasury was particularly concerned with the large purchases of short-term Government securities in 1921-22, urged the reserve banks to reduce their holdings and substitute acceptances, and was even prepared to reimburse the reserve banks for fiscal services in order to discourage purchases of such securities.² On the other hand, the Federal Advisory Council defended the reserve banks and contended that purchases of short-term certificates had not been excessive.³ In these years, acceptances were not plentiful, competition with member banks was feared, and long-term securities were held to be dangerous investments because liquidation was fraught with the danger of large losses.⁴ Reserve banks, in truth, have frequently been hampered in their open market policies by the disinclination to accept losses on securities.⁵

Aroused by the potential dangers of a thoughtless investment policy, the Governors' Conference appointed a committee in April, 1922, to execute orders for the purchase of securities. This committee, created by the inspiration of the Board and Treasury, had no discretion and was to execute orders in such a manner as to safeguard the interests of the security market, the reserve banks, and the Treasury.⁶ In October Dr. Miller attended a meeting in New York called for the purpose of extending the scope of the work of the committee. The Governors' Conference then agreed that the committee should make recommendations to the reserve banks concerning the advisability of purchases or sales of securities and that these recommendations should receive serious consideration by each

¹ "The Federal reserve banks have during the past year made large purchases of government securities as investments for their own account, not at all because of pressure from the government or from individuals holding government obligations." *F.R.B.*, 1922, p. 765.

² *Min.L.S.*, 1922 (16), X-3396a, p. 546; *ibid.*, X-3418, pp. 613-614; *ibid.*, 1922 (17), X-3523, p. 1094.

³ *Ibid.*, 1922 (16), X-3392, pp. 533-534; *F.R.A.*, 1922, p. 410.

⁴ *Min.L.S.*, 1922 (16), X-3392, p. 534; *Proceedings*, November, 1924, pp. 30-43.

⁵ *Proceedings*, November, 1924, pp. 45-46; Dallas Reserve Bank, *Proceedings*, 1929, p. 13. At this time, the possibility of investing freely in foreign bills was scouted. *Ibid.*, p. 56.

⁶ *Proceedings*, October, 1922, I, 11; cf. B. Strong, *op. cit.*, pp. 237-239.

reserve bank. The committee was to keep in close touch with the market, Treasury, and Board and was to hold frequent conferences.¹ At the October, 1922, Conference with the Board, Governor Strong pointed out that it was not intended that the committee control or direct the action or management of the twelve reserve banks but merely that it should prepare information assuring an intelligent policy. Governor Strong announced at the Conference that the only investments now made without consultation with the committee were purchases from member banks over the counter.² Dr. Miller was not satisfied that the committee was not responsible for policy.³ Governor Strong now reported in favor of the adoption of an investment policy directed with a consideration *particularly — exclusively* had been in the original draft — of the conditions in the money market, the state of credit, and the operations of the Treasury.⁴ And at this Conference, Jay's motion was carried that open market operations as well as the credit policy should be administered in such a manner as to assist the System in discharging its natural responsibility in preventing credit expansion from developing into credit inflation.⁵ Reserve banks now began to share once more in the purchases of acceptances of the New York Bank and to purchase and sell securities on the principles adopted at the October Conference.⁶

In 1923 the Board took the initiative in a successful attempt to revise the procedure. In a memorandum submitted to the reserve banks in March of that year, the Board argued that under Sections 13 and 14 it had the authority to limit and otherwise determine the securities and investments purchased by Federal reserve banks, that the time, manner, and volume of such purchases might exercise an important influence on the money market, that an open market investment policy for the twelve banks was necessary in the interest of the maintenance of a proper relationship between discounts and purchases of the reserve banks and the general money market.⁷ These ideas were incorporated in the final draft promulgated in the following month; but several other statements in this early draft were therefrom omitted. In particular, statements that the reserve banks had hitherto not laid down an open market policy; that they had in the past purchased securities mainly for the pur-

¹ *Proceedings*, October, 1922, I, 11-13.

² *Ibid.*, pp. 13-15.

³ *Ibid.*, p. 17.

⁴ *Ibid.*, p. 18.

⁵ *Ibid.*, II, 424.

⁶ *Dallas R. B. Ann.*, 1922, pp. 10-11; *Boston R. B. Ann.*, 1923, pp. 20-21.

⁷ *Mim.L.S.*, 1923 (18), X-3667, p. 212.

pose of paying dividends; that, in 1922, excessive purchases had been made when restraint was the more expedient policy; and, finally, that securities should be divided among the reserve banks according to their deficiencies in earnings, thus assuring a minimum amount of earning assets — these statements were omitted in the final draft.¹ Several of the criticisms were unjust. Apparently there has been an attempt made to distribute securities on the basis of deficiencies in earnings, although the Board's regulations made no such provision.² In the final draft, the Board made the unjustifiable assertion that it had never prescribed any limitation upon open market purchases by the Federal reserve banks.³ The significant changes now introduced by the Board were that an Open Market Investment Committee, operating under the supervision of the Board, was to replace the Committee of Governors; that the new committee was to be guided by the principles now enumerated by the Board and by any further regulations suggested by the Board; that the time, manner, character, and volume of open market investments be governed with primary regard to the *accommodation of commerce and business* and the effect of such purchases or sales on the general credit situation; and that purchases be primarily commercial investments except that Treasury certificates be dealt in under the repurchase agreement.⁴ The Board now also took a stronger position in the determination of policy: it requested that securities and acceptances be disposed of and the buying rate be increased before it would consider suggestions for an increase in the discount rate.⁵ In a public statement the Board justified its demand for a System policy on the grounds that purchases and sales influence the credit situation primarily in the money centers where purchases or sales are made.⁶

¹ *Mim.L.S.*, 1923 (18), x-3667, pp. 213-214; *ibid.*, x-3689, p. 261 (Provisional draft); *ibid.*, 1926 (24), x-4586, p. 289 (Final draft of 1923); Hearings: *Stabilization* (69: 2), 1926, II, 864-865.

² *Proceedings*, November, 1924, p. 122; cf. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 74.

³ *Mim.L.S.*, 1926 (24), x-4586, p. 289.

⁴ *Ibid.*

⁵ *Ibid.*, 1923 (18), x-3675, p. 248; *ibid.*, x-3696, p. 277; cf. *ibid.*, x-3661, p. 205. The Board expressed itself strongly on the necessity of allowing maturing certificates to run off.

⁶ *F.R.A.*, 1923, p. 15. In 1928, Governor Harding said that the open market committee allocates purchases and sales *pro rata* on the basis of capital and surplus. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 74.

The dire results of the open market operations undertaken in 1927 led the Board once more to revise its procedure.¹ Apparently the Board's influence had declined since 1925, and it seized this opportunity to increase its control of open market operations.² In May, 1928, the Federal Advisory Council proposed that a committee of all Governors should be substituted for the acting committee representative of the larger reserve banks, and the Board presented this proposal at a meeting of the Governors and Agents.³ In November, 1928, was formulated a definite program of reform, which provided for a committee, representative of all the Banks, operating under the chairmanship of the Governor of the Federal Reserve Board, who alone was to have the privilege of calling meetings.⁴ The Board made a more comprehensive statement early in 1930. In 1923 it had not realized that so much use would be made of open market operations; but the lesson of the last five years had been that open market operations may be of fundamental importance in altering credit conditions; and hence the Board proposed a revised procedure "which embodies a fuller recognition of the joint interest and responsibility of Federal reserve banks and the Federal Reserve Board in the matter of open market policy."⁵

The Board has published a synopsis of the replies of the reserve banks to these proposals.⁶ In general, the reserve banks seemed to object to the inadequate powers proposed for the executive committee, which was to be a smaller body and subject to the control of the larger committee; the reserve banks in the Northeast would allow the executive committee to exercise more discretion and be something more than a broker.⁷ For example, the New York Bank proposed that both the general committee and the executive committee have authority to execute approved plans and policies on behalf of such banks as cared to participate. Fear was expressed

¹ The Board had been assured by its counsel in 1927 that its legal powers were more than adequate. *Mim.L.S.*, 1927 (27), x-4980, p. 271.

² Hearings: *Stabilization* (69: 2), 1926, II, 675.

³ *F.R.A.*, 1928, p. 229; *Mim.L.S.*, 1928 (29), x-6191a, p. 367.

⁴ *Ibid.*, x-6175, p. 337.

⁵ *Ibid.*, 1930 (32), x-6484, pp. 82-84. But compare the statement made in 1923: "Moreover, and eventually destined to be far more important, the character and scale of the open market operations engaged in by Federal reserve banks during the year 1922 and the early part of 1923 showed the need of bringing these operations more definitely into line with the general credit policy of the system." *F.R.A.*, 1923, p. 13.

⁶ *Mim.L.S.*, 1930 (32), x-6525, pp. 306-311.

⁷ The New York Bank is critical of the present procedure on the grounds that there is too much inertia. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 818.

that the machinery was too cumbersome. The executive committee ought to anticipate situations likely to arise and be prepared to formulate recommendations. The New York Bank would participate only so long as the machinery was efficient and the manner of operation was effective; several of the banks reserved the right to deal with their own markets and member banks when necessary; the Boston Bank seemed disposed to allow the Board to control the committee although it also seemed anxious that the committee retain its autonomy. The Philadelphia Bank objected strenuously to the Board's participating *ab initio*, for such participation was not compatible with the proper exercise of the power of review. Several suggested that the Board's authority to call meetings of the committee be shared by the representatives of the reserve banks. The draft put into effect March, 1930, profited from these deliberations and criticisms.¹ Reserve banks were to be autonomous and hence might refuse to participate in any purchases or sales recommended, although reasons for refusal to participate were to be given. It was also provided that the chairman of the executive committee might call meetings. Each reserve bank was to appoint a representative for the Open Market Policy Conference, which was to be substituted for the Open Market Investment Committee. In short, the Board obtained greater control of open market operations, and each reserve bank was now to be represented. Objectives were to be similar to those announced in 1923.²

¹ *Mim.L.S.*, 1930 (32), x-6556, pp. 387-388; *ibid.*, x-6556a, p. 389. Hamlin says that this change marks an important step toward centralized operation. E. Platt, "Recent Evolution in Policy of the Reserve System," *American Bankers' Association Journal*, March, 1931, pp. 749-750, 780. Senator Glass, in the ill-fated Banking Act of 1932, provided legal sanction for the present procedure and for increased authority for the Board. S. 4412 (72: 1), Section 7 (April 18, 1932).

² Dr. Miller says that the revision of the procedure made possible an adequate control by the Board. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 129.

CHAPTER VIII

OPEN MARKET OPERATIONS — OBJECTIVES AND SIGNIFICANCE

I. INTRODUCTION

A FAILURE to use the discount weapon effectively has been in large part responsible for the increased attention given to open market operations.¹ Authorities have welcomed them as a substitute for changes in the discount rate or as a means of inducing changes in the condition of the money market so that a change in the Bank rate would merely reflect existing conditions there.² Open market operations function more smoothly and attract less attention than do changes in the discount rate, and hence are less distasteful in a country where fluctuations in the Bank rate are not taken phlegmatically.³ I shall devote this and the next chapter to a discussion of the objectives and significance of open market operations in recent years.⁴

Many reasons have been given in support of open market

¹ It is observed by the Committee of the Chamber of Commerce that open market investments in the portfolios of reserve banks have been in excess of rediscounts seven out of the thirteen years of the history of the System. *The Federal Reserve System*, Report of the Banking and Currency Committee, U. S. Chamber of Commerce, Auxiliary Statements, p. 13.

² Hearings: *Stabilization* (69: 2), 1926, I, 333. *Proceedings*, November, 1924, p. 223.

³ In 1925, Governor Strong said that open market operations could "be exercised without too great a red flag." The country puts too much significance in a change of the discount rate. *Proceedings*, November, 1925, pp. 208-209. Miller refers to open market operations as a "credit control device," more leisurely in character and less openly deliberate than the discount rate. *Mim.L.S.*, 1928 (28), x-6055, p. 476. The Board said that "open market operations provide a cushion of credit between the direct borrowings of member banks and the money market. . . ." *F.R.B.*, 1924, p. 3; also see *F.R.A.*, 1923, p. 11 and W. R. Burgess, *op. cit.*, p. 209.

⁴ It may be observed here that purchases and sales are also made to offset the effects of Treasury financing. Sales of securities, especially manufactured for the purpose, deprive member banks of cash in the same manner as sales of investments from the System's portfolio and a redemption of securities in the System's (reserve banks) possession has effects similar to sales to the public by the reserve banks. *Mo. Rev. of N.Y.R.B.*, April, 1926; *ibid.*, March, 1927.

policies;¹ it has been said that they prepare the way for a change in the discount rate,² and also that open market operations make the discount rate effective;³ but the tendency has been to minimize the latter theory, for increasingly reserve banks have introduced open market operations as a preliminary to a change in the rate; and, therefore, it might more accurately be said that a change in the rate makes open market operations effective. The accepted theory is that through open market operations the reserve banks can influence the amount of indebtedness of member banks, and banks lend more or less freely, thus contributing to a reduction or increase of market rates with fluctuations in the volume of indebtedness of member banks.⁴ Here it will be argued that reserve banks do not have complete control over the amount of member bank indebtedness, and hence that open market operations are of limited significance. At first it was assumed that reserve banks had complete control over the amount of their earning assets;⁵ but they cannot thus control the magnitude of reserve bank credit outstanding

¹ Perhaps the most thorough and most candid official discussion of open market policy is to be found in the replies to the Senate questionnaire addressed to the reserve banks in 1931. The experiences of 1922, 1924, 1927, and 1931 are discussed. Particular attention is paid to the theory discussed below, that purchases of securities result in liquidation of debts by member banks and a relaxation of the pressure to liquidate, resulting in lower rates. It is frankly admitted that operations have been carried too far sometimes and also that the expansion of credit has been excessive in view of the domestic — not the foreign — situation. Hearings: *Operation of Banking Systems* (71: 3), 1931, especially pp. 799-817.

² Dr. Miller commented as follows: "While the discount rate of the Federal reserve banks has undergone changes from time to time, such changes more frequently than not have been made either in recognition of a credit situation brought about by antecedent open market operations or to accompany and reinforce a change of attitude assumed by the Federal Reserve through its open market policy toward the trend of business and credit conditions and needs." *Mim.L.S.*, 1928 (28), X-6055, p. 475.

Keynes finds that open market operations may achieve results independently: a progressive series of small open market operations will be effective in inducing banks to reduce their operations gradually. J. M. Keynes, *op. cit.*, II, 254. C. F. Mitchell says that open market operations bring results more quickly than discount rates; they sop up reserve credit. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 310.

³ *Proceedings*, October, 1922, I, 111.

⁴ Cf. for example, W. R. Burgess, *op. cit.*, pp. 220-223; W. W. Riefler, *op. cit.*, pp. 25-28. Whitaker proceeds a step further: the policy may be effective even before the desired change in the volume of indebtedness is effected, for the change may be anticipated. A. C. Whitaker, "Federal Reserve Position and Policies," *American Economic Review, Supplement*, March, 1930, p. 96.

⁵ *Mo. Rev. of N.Y.R.B.*, July, 1921, *ibid.*, December, 1923. Although reserve officials are now more careful in making statements concerning their capacity to determine the volume of reserve credit outstanding, economists are not always so cautious. Cf. I. Fisher, *The Stock Market Crash and After*, p. 190.

through open market operations, for member banks usually rediscount or sell acceptances when the reserve banks sell securities.¹ Although officials have been increasingly aware of the importance of gold and currency movements, fluctuations in Treasury currency, member-bank balances, and similar factors,² they have not recognized adequately the extent to which their doctrine of open market operations and member-bank indebtedness requires modification in the light of the fluctuations in these variables.³

Other arguments have been used to justify open market operations, but almost all are related to this central theme. Thus, Burgess and others have pointed out that they have been undertaken in response to changes in business conditions in order to influence conditions by relieving a stringency or averting excessive ease.⁴ Indeed, when business has been depressed, reserve banks have purchased securities for the purpose of relieving member banks of the burden of debts. Another objective frequently mentioned has been

¹ Strong and Burgess in recent years have made an important modification of the doctrine that open market operations are offset by inverse movements in discounts; they place other earning assets against open market operations. This is a more serious modification of the open market-indebtedness theory than they have recognized, for the sale of acceptances to reserve banks does not increase the debts of members, nor are purchases of acceptances to be considered as involuntary operations of the reserve banks as Burgess contends. In other words, a sale of securities may be followed by additional sales of acceptances to reserve banks rather than an increase of indebtedness, and therefore, the pressure for liquidation may not be increased appreciably by the sale of securities. Reserve banks thus make it possible for members to obtain cash in a relatively costless manner, although the volume of purchases of acceptances depends largely on the active (voluntary) policy of reserve banks. W. R. Burgess, *op. cit.*, p. 212; Hearings: *Stabilization* (69: 2), 1926, 1, 331-332. The Board also pointed out in 1925 that member banks might sell acceptances or borrow reserve funds rather than rediscount. *F.R.B.*, 1925, p. 527.

² Perhaps the best evidence of this point is the increasing attention given to the study of the factors that determine the supply and demand for reserve bank credit. For the entire period 1914-27, accessions of gold have been a much more important source of reserve funds than reserve bank credit, and reserve funds have been used primarily to meet the demand for currency and additional cash required for reserve. Similar studies, not so far advanced, had been made by the New York Bank as early as 1921. *Mo. Rev. of N.Y.R.B.*, October, 1921; *F.R.A.*, 1927, p. 19.

³ Federal reserve credit and earning assets of reserve banks are used interchangeably in this study although a small proportion of reserve credit is not earning assets (investments in uncollected checks). For the most part, reserve credit consists of rediscounts (and other forms of indebtedness of member banks), acceptances, and investments.

⁴ *C.F.Chr.*, 1925 (120), p. 1038; *ibid.*, 1928 (127), pp. 3341-3342 (Burgess's 1928 address to the American Acceptance Council); W. R. Burgess, *op. cit.*, pp. 220-222; *Mim.L.S.*, 1928 (28), x-6041, p. 445 (Young's Oklahoma address of May, 1928); *C.F.Chr.*, 1929 (120), p. 3573. Cf. *Review of Economic Statistics*, 1924, p. 184.

the protection of the gold supply; but in the United States, little use has been made of the argument.¹ The flow has generally been inward and over the entire period of reserve history there has been relatively little concern over losses. Therefore, when speculation and inflation have threatened, open market operations have been carried on almost exclusively with a view to correcting the domestic situation. On the other hand, there has been a disposition to offset losses of gold,² and to a very limited extent, imports of gold. It may be observed here that when the reserve banks offset losses, they may stimulate further exports of gold rather than protect the gold supplies; for corrective action is not taken at home. Another argument that was used especially in the years 1923 and 1924 may be mentioned here. It was maintained that the reserve banks could test the demand for credit by selling securities. The assumption was that if the market were deprived of cash through sales of securities, member banks would rediscount to an equivalent amount only if there were a demand for the credit previously voluntarily created by the reserve banks; but as it became increasingly evident that member banks would usually rediscount or sell acceptances to an equivalent amount unless their cash position was improved in some other manner, this point was made less often. And, finally, purchases have been justified on the grounds that reserve banks, thus obtaining control of a larger proportion of the credit outstanding, collect ammunition.³

There is ample evidence that when open market operations were undertaken on a large scale in 1921-22, reserve banks were primarily concerned with finding employment for part of their surplus resources.⁴ The fact that the System was regional aggravated the

¹ Cf., however, District Court of the United States, Second District of New York. *Raichle vs. Federal Reserve Bank of New York* (Brief in Support of Motion to Dismiss the Bill of Complaint), p. 24.

² In the early months of 1925, reserve banks continued to liquidate their investments while gold was being exported. *Mo. Rev. of N.Y.R.B.*, March, 1925.

³ *Proceedings*, October, 1922, II, 412; *Hearings: Stabilization* (69: 2), 1926, I, 331; *F.R.A.*, 1924, p. 12.

⁴ In reply to a question from Governor Strong in April, 1922, each governor replied that the objective of the investment policy of his bank was to earn expenses and pay dividends. *Proceedings*, October, 1922, I, 77. At the October, 1922, Conference, at least one member of the Board expressed concern over a possible deficiency of earnings. *Ibid.*, pp. 356-357.

As late as 1924, there seemed to be much sentiment in favor of an investment policy that might be modified with a view to assuring the payment of dividends; the May Conference of Governors had, however, declared itself opposed to the purchase of in-

evil of ill-considered purchases, because each reserve bank purchased independently and was more likely to buy excessively because of the fear that supplies of investments would be inadequate.¹ In a memorandum on the subject, the Board criticized the reserve banks for maintaining their earning assets at 1,200 millions when the return on investments of 800 millions would have been adequate to cover their expenses and pay dividends.² Also, competition was keen between the reserve banks and the member banks, and the situation was complicated by the fact that the Treasury objected to large purchases by the reserve banks which tended to obscure the condition of the investment market.³ Available investments were limited in quantity, especially because reserve banks refrained from purchasing long term Government securities in large quantities.⁴

2. 1922-23 — DISCUSSIONS AND POLICY

An element of leadership was introduced in 1922 when the danger of reckless purchases had become apparent; then it was that effects on the money market began to be considered. In 1921 the Governors' Conference had already agreed that purchases made in order to earn dividends were justified;⁵ but in the year preceding the Conference of October, 1922, much progress was made. At the latter Conference, Dr. Miller was already aware that sales of securities would be followed by rediscounts, and for that reason he was more inclined to deprive the market of cash temporarily, through large sales of securities, than was Governor Strong; but he also seemed to favor contraction. Strong was more concerned with the effects on the money market and Treasury, as shown by his proposal that, as rediscounts and gold imports increased, the re-

investments for the purpose of increasing earnings. *Ibid.*, November, 1924, pp. 32-39. Professor Reed even contends that purchases were made as late as 1926 with a view to increasing earnings. H. L. Reed, "The Recent Work of the Federal Reserve Administration," *American Economic Review, Supplement*, March, 1926, pp. 303-315.

¹ *Proceedings*, October, 1922, 11, 364-365.

² *Mim.L.S.*, 1923 (18), x-3667, p. 212. The Board also said, "It appears that during the year 1922 the Federal reserve banks have made large purchases of investments in the open market mainly for the purpose of assuring the earnings of their expenses and dividends without much regard to the bearing of such purchases upon the money market and general credit requirements of the country." *Ibid.*, p. 212.

³ *Ibid.*, p. 213; cf. *ibid.*, 1922 (16), x-3396a, p. 546; *ibid.*, 1922 (17), x-3525, p. 1094.

⁴ *Ibid.*, 1922 (16), x-3392, p. 534; *Proceedings*, November, 1924, pp. 43, 46.

⁵ *Ibid.*, October, 1922, 1, 361.

serve banks should aim to reduce the total of their *investments in securities and bills*.¹ At this time the experts favored the inclusion of the purchase of bills with Government securities in the category of open market investments.² Governor Strong also suggested that the market might recoup its loss of cash following sales of securities by, first, the proceeds of gold imports and, second, sales of bills to the reserve bank if the buying rate were not raised too rapidly.³ He realized that it was dangerous to deprive the banks of cash — a position that the Board has recognized more clearly since — and therefore his main disagreement with Miller seemed to be that he doubted whether member banks would rediscount or whether bills would be sold to the reserve banks in sufficient quantities to offset large sales of securities; or, he argued, that rediscounts increased the expense of reserve credit.⁴ It is noted that at this juncture Governor Strong proposed a very modest open market policy: he would undertake only to offset movements of gold or rediscounts in part; he would reduce the investments in securities and bills somewhat as discounts and the stock of gold increased. He did not suggest that the total earning assets be maintained at a stable level, although he made provision that earning assets should not be reduced too much.

Governor Morss pointed out that the sale of an entire portfolio might not be expedient,⁵ and Jay suggested that investment policy might be considered from the viewpoint of its relation to imports of gold or fluctuations in the amount of rediscounts.⁶ At this early

¹ *Proceedings*, October, 1922, II, 366-367, 399-400, 409-414.

² *Ibid.*, pp. 362, 407, 425. Dr. Miller included bills purchased with securities, because he held that both were acquired voluntarily. Governor Strong's resolution was that "any principle of Federal reserve investment in government securities and bills be regulated somewhat with a view to reducing the aggregate of such investments as the aggregate of discounts and gold imports increase." Previously, however, Strong had said that reserve banks retained no initiative in the purchase of bills. *Ibid.*, I, 77-78. In January, 1923, the Board pointed out that purchases of both Government securities and acceptances had made it possible for member banks to reduce their indebtedness. *F.R.B.*, 1923, pp. 4-5.

In general open market policy, if it is to be successful, requires formulation with acceptance policy in mind. Reserve officials have at times jeopardized their open market policy by not enforcing an acceptance policy consistent with their security policy. It is to be noted, however, that in determining the buying rate on acceptances, the volume of acceptances offered to reserve banks is only determined within limits.

³ *Proceedings*, October, 1922, II, 400.

⁴ *Ibid.*, p. 357. He seemed less willing to commit himself to a vigorous policy of liquidation regardless of conditions. *Ibid.*, pp. 413-414.

⁵ *Ibid.*, p. 355.

⁶ *Ibid.*, p. 357.

date, Morss also was of the opinion that open market operations obscured the real demand for credit.¹ Jay contended that, whereas an increase in the discount rate might not affect the use of reserve funds, a sale of securities might deprive the market of funds and raise rates, and thus drive member banks to the reserve banks.²

From June, 1922, to June, 1923, securities were disposed of in large quantities on the theory that it was necessary to test the dependence of member banks on the reserve bank credit outstanding. Inflation was feared, and a vigorous rate policy was held inexpedient. That the sale of investments was approximately offset by an increase of discounts, was at this time recognized as an indication of the ineffectiveness of this policy. Member banks would not be deprived of cash once it had been placed at their disposal; they would rediscount to the extent to which they were deprived of cash as a result of sales of investments by reserve banks, unless their cash position was improved by a movement in some other variable — gold imports, retirement of currency, transfers from demand to time deposits, or sales of acceptances to the reserve banks. In later years, it was more frequently contended that sales were offset by rediscounts, although authorities frequently failed to explain that the level of rediscounts was determined to a greater degree by other factors, gold movements and the like, than by open market operations. Reserve officials might have abandoned earlier the theory that they could determine the volume of their earning assets or of Federal reserve credit. In 1921-22, however, they recognized the fact that they were unable to determine the volume of their earning assets, for unprecedented imports of gold were followed by equally unprecedented reductions of earning assets.³

3. THE RELATION OF OPEN MARKET OPERATIONS AND MEMBER-BANK INDEBTEDNESS

Although officials have repeatedly pointed out in recent years that many factors account for the supply and demand of reserve bank credit, they have not always been disposed to admit that the mag-

¹ *Ibid.*, pp. 412-413.

² *Ibid.*, I, 111.

³ Governor Harding said in 1921 that the volume of the operations of reserve banks depends on the demand for accommodation by member banks and the amount of credit available to satisfy that demand. *F.R.B.*, 1921, p. 671. The suggestion was made by the New York Bank that the degree of control over gold movements depends on the extent to which member banks are indebted to reserve banks. *Mo. Rev. of N.Y.R.B.*, October, 1922.

nitude of member-bank indebtedness may be determined by the same factors. Such an admission would have been an announcement that open market operations were of distinctly limited significance.

At the October, 1922, Conference, Jay elucidated more clearly than anyone else the idea that open market operations might be undertaken with a view to compelling member banks to borrow from the reserve banks.¹ In 1923 authorities were inclined to put much emphasis on the stability of earning assets and the inverse relation between investments and rediscounts, because these variables seemed to move in this manner. It was in March of that year that the Board requested reserve banks not to reinvest the proceeds of a maturing issue of Treasury certificates, explaining that the season for rediscounting was approaching.² A month later the Board objected to an increase in rates but proposed that reserve banks liquidate their securities in order to test the dependence of the existing credit structure upon Federal reserve accommodation.³ It is clear from the last two statements that the Board had not yet become reconciled to the extreme position that sales of securities were followed by approximately equal rediscounts. But by May its position had altered: beginning in the vein of the previous two months, an announcement declared abruptly that discounts and sales of securities had offset each other and concluded, "a continuance of this credit trend must soon result in increased borrowings by member banks at the reserve banks."⁴ Again, early in 1924, the Board was inclined to emphasize the fact that rediscounts exactly offset sales, though it drew the unwarranted, and perhaps obscure, conclusion that "the total volume of reserve bank credit outstanding was not in excess of requirements."⁵ The Board had apparently not yet learned that member banks maintain the level of their cash reserves tenaciously, and that a substitution of rediscounts for investments is no evidence that the supply of credit outstanding is at the proper level.⁶ By 1924, the Board was aware that funds ob-

¹ *Proceedings*, October, 1922, I, 111.

² *Mim.L.S.*, 1923 (18), x-3629, p. 205.

⁴ *F.R.B.*, 1923, pp. 542-543.

³ *Ibid.*, x-3696, p. 277.

⁵ *Ibid.*, 1924, pp. 2-3.

⁶ "The gradual withdrawal from the open market by the reserve banks during the first half of 1923 placed upon the member banks the responsibility for validating the continued use of the existing volume of reserve bank credit and tested the degree of dependence of the credit structure upon the volume of Federal reserve bank accommodation outstanding." *F.R.A.*, 1923, pp. 14-15; cf. *Hearings: Stabilization* (69: 2), 1926, II, 707-709, and *N.Y.R.B.Ann.*, 1923, pp. 9-10.

tained through the importation of gold, the influx of currency and the like, as well as from the purchase of securities by the reserve banks, had been used to reduce indebtedness.¹

After 1924 there was on the whole less discussion of open market operations as a means of testing credit demands, and less emphasis on the closeness of the inverse relationship between movements of securities and rediscounts; but it was repeatedly asserted that securities were purchased in order to reduce the debts of banks. In Governor Strong's memorandum of 1924 and the significant memorandum of the Open Market Investment Committee of 1926, statements were made concerning the relation of purchases and rediscounts.² Although authorities frequently denied the importance of open market operations in the years 1928-30, they continued to adhere to the theory that purchases resulted in a reduction of debts and vice versa, and paid small heed to the movements of gold and currency. Governor Young adhered to that theory in his addresses of June, 1930; and in 1929 the New York Bank's counsel, probably inspired by reserve officials, expressed himself in terms reminiscent of the discussion of 1922.³ On the other hand, Governor Harding, in commenting in 1929 on the failure of open market operations, contended that the failure was to be attributed to the fact that sales had been followed by rediscounts of notes collateralized by the identical securities previously disposed of by the reserve banks: he assumed that the authorities had been upset by what he considered an unusual relation of open market operations and rediscounts.⁴ The doctrine that open market operations are significant because they are followed by inverse movements in member-bank indebtedness, is still generally accepted.⁵

¹ *F.R.A.*, 1924, p. 12.

² Hearings: *Stabilization* (69: 2), 1926, I, 335-336; *Mim.L.S.*, 1926 (24), x-4565, p. 223; cf. *C.F.Chr.*, 1927 (24), p. 2695.

³ *Mim.L.S.*, 1930 (32), p. 956; *ibid.*, x-6618, p. 591; District Court of the United States, Second District of New York. *Raichle vs. Federal Reserve Bank of New York* (Brief in Support of Motion to Dismiss the Bill of Complaint), pp. 24-27.

⁴ *C.F.Chr.*, 1929 (128), p. 1834.

⁵ W. R. Burgess, *op. cit.*, p. 210; W. W. Riefler, *op. cit.*, pp. 27-28. Riefler says that the effect on the amount of member bank indebtedness explains the efficacy of open market operations. Anderson has recently contended that the sale of securities would have proved effective in 1928 if penalty rates had been enforced: member banks would not have offset sales of securities by rediscounts. B. M. Anderson, Jr., "An Analysis of the Money Market," *Chase Economic Bulletin*, June, 1928, pp. 3-4.

4. MEMBER-BANK INDEBTEDNESS, GOLD MOVEMENTS, AND THE INEFFECTIVENESS OF OPEN MARKET OPERATIONS

Many officials were aware in 1922-23 of a relationship between open market operations and bills discounted and purchased; but they had not anticipated how tenaciously member banks would maintain their cash reserves. In 1923 the authorities still viewed open market operations as a means of testing the real demand for credit although they had been struck by the stability of earning assets in 1922-23; but in 1924, they were less disposed to emphasize that point, taking instead the position that open market operations result in a change in the distribution of assets; that is, sales are followed by an increase in indebtedness.¹ In the earlier argument it was implied that member banks might not replenish their cash. We shall see that even the later position has many limitations.

Strong now expressed for the first time the theory that an increase of indebtedness was restraining; that is to say, the distribution, rather than the total, of earning assets might be significant: large purchases in 1924 were followed by reductions of discounts and easier conditions.² But the Federal Advisory Council still clung to the

¹ They have not consistently adhered to the new position. *Mo. Rev. of Boston R. B.*, May, 1926.

² In August, 1924, the New York Bank commented on a large expansion of bank credit, which was explained by the cumulative effects of imports of gold, movement of funds from the interior, and a return flow of currency; and the extinguishment of debts in the preceding two months was held to be an explanation in part of the rapidity of the change. *Mo. Rev. of N.Y.R.B.*, August, 1924.

The first clear statement of the theory that the magnitude of member-bank indebtedness is an important factor in the determination of conditions on the money market was made — so far as I know — by Governor Strong at the November, 1924, Conference. *Proceedings*, November, 1924, pp. 212-213. In 1926 his open market committee made a more comprehensive and clear statement of this doctrine that has played so important a part in the philosophy of reserve bank control. The committee considered the advisability of purchasing securities in order to relieve the pressure which heavy borrowing induced and specifically referred to the volume of borrowing which has usually been accompanied by easy conditions and the volume that has brought pressure for liquidation. *Mim.L.S.*, 1926 (24), x-4565, pp. 223-225. More recently, W. R. Burgess (*op. cit.*, pp. 214-215), Governor Young, (*Mim.L.S.*, 1930 [32], x-6618, p. 506), and W. W. Riefler (*op. cit.*, pp. 25-28) have expressed themselves clearly in support of the doctrine. The latter writes: "The functioning of reserve banks in the money market must, therefore, be considered from the point of view of the theory that changes in the volume of member bank borrowing exert a more important influence on rates than do changes in discount rates." The Federal Reserve Board has frequently commented on the close relationship between the volume of discounts and the level of money rates. *F.R.B.*, 1929, pp. 360-361. Cf. *Hearings: Operation of Banking Systems* (71: 3), 1931, p. 802.

theory that reserve banks could control the amount of reserve bank credit outstanding.¹ The experience of 1924 revealed that purchases may be carried to a point where member-bank debts are reduced to the vanishing point in the financial centers, and the total earning assets are increased with the result that surplus funds are offered on the open markets and a rapid decline of market rates follows.

At the 1922 Conference, it had been recognized that open market operations might be undertaken with a view to offsetting imports of gold.² The acceptance of a theory of an inverse relationship between open market operations and discounts or other earning assets is in part responsible for the failure to appreciate the fact that open market operations are to be undertaken in the light of the movements of all the factors that determine the cash position of member banks. If open market operations are to be of vital importance, their effects should not be overshadowed by the effects, for instance, of gold or currency movements. Yet on the whole movements in gold and currency and fluctuations in reserve requirements have

¹ *F.R.A.*, 1924, pp. 278-279.

² In recent years, writers have given much attention to the theory that open market operations should be undertaken with a view to offsetting movements of gold; but on the whole, this objective has not received much emphasis in the United States. The outstanding indebtedness of member banks was so high in 1920-22 that the problem of very large imports was easily solved for the time being. In later years, the question has been raised more frequently. Governor Strong gave as one important reason for the purchase of bills in 1924 the need of an accumulation of securities to be used to offset future imports of gold. Hearings: *Stabilization* (69: 2), 1926, I, 336. At the height of inflation in 1925, the Open Market Committee was prepared to offset losses of gold by the purchase of securities. *Proceedings*, November, 1925, pp. 206-207. In 1927, the authorities undoubtedly continued to purchase securities to offset losses of gold when they should have refrained; even when losses of gold in 1928 were allowed to have their full effect, Governor Young continued to emphasize the objective of open market operations now under consideration. Hearings: *Brokers' Loans* (70: 1), 1928, p. 71; *Mim.L.S.*, 1928 (28), x-6041, p. 445.

Willis is justified in his contention that reserve banks have not offset gold imports in the manner practiced by the Bank of England; but the reserve banks would have found it difficult to neutralize the unprecedented inflow of the years 1921-27. They did not have an adequate supply of securities, and, moreover, such large sales would not have been tolerated by the Treasury. Fortunately, they were aided by the large repayments of debts by members. Undoubtedly, the direction of the movement of gold explains in part the limited extent to which open market operations have been carried on with a view to offsetting gold movements. *C.F.Chr.*, 1928 (127), p. 744. But even the large losses of the latter part of 1931 were allowed to exercise a restraining effect; and the losses of the first half of 1932 were offset by purchases of investments only in the sense that losses followed large purchases of securities that are to be associated with the requirements of the vigorous open market policy of 1932.

frequently been the decisive factors in the years 1922-33. Once the theory that reserve banks could control the amount of member-bank cash was abandoned, supporters of open market policy pointed to the relation of open market operations and the amount of indebtedness of member banks.

Adequate attention has not been given to the fact that reserve banks can control the amount of member-bank indebtedness only within wide limits,¹ and it has not always been evident that an increase of member-bank indebtedness has always been followed by pressure for liquidation.² Exceptions were especially important in 1928 and 1929. Somewhat more tenable is the theory that increased indebtedness is followed by higher rates; but even this point has its limitations, for higher rates are followed only tardily and inadequately by increases in the rates on the bulk of member-bank investments, and, moreover, higher market rates may not be permanent and therefore may not have a decisive effect: the explanation is that competitive funds are attracted both from domestic and foreign sources when rates increase.

By 1927, then, the stage was set for disappointment with the results of open market operations. Discount policy had received less and less attention; important officials had publicly proclaimed that open market operations were the most important weapon at the disposal of the reserve banks; the relations between these operations and member-bank indebtedness, and those between indebtedness and rates, were frequently discussed. But the limitations on the complete control of member-bank indebtedness were disregarded.

¹ Here and there reserve officials have pointed out that open market operations do not necessarily determine the magnitude of member-bank indebtedness, for currency and gold movements may upset the calculations of the authorities; but these statements have been the exception. The wide acceptance and attention given to Governor Strong's thesis of the significance of the amount of indebtedness and the increased emphasis on open market operations are evidence of the extent to which the doctrine, in its unmodified form, has been accepted. Cf. *Proceedings*, October, 1922, II, 375, 400; *F.R.A.*, 1924, p. 12. For a few careful statements made by the Board, cf. *F.R.B.*, 1927, p. 692; *F.R.A.*, 1929, p. 1. Riefler was aware of the difficulty, for he pointed out that the extent to which the open market operations governed the credit situation in 1922-23 was determined by the fact that factors (other than open market operations and rediscounts) largely neutralized one another. W. W. Riefler, *op. cit.*, p. 182. The New York Bank pointed out that rediscounts were generally correlated well with notes in circulation. *Mo. Rev. of N.Y.R.B.*, December, 1923; *ibid.*, November, 1927.

² Dr. Miller now admits that too much faith has been placed in the restraining effects of an increase in rediscounts. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 156; cf. B. M. Anderson, Jr., "An Analysis of the Money Market," *Chase Economic Bulletin*, June, 1928, p. 19.

In 1921 the large outstanding indebtedness of member banks relieved the reserve banks of the responsibility of offsetting the imports of gold. In truth, they purchased approximately a half billion of investments in a period of about eight months in 1921 and 1922, in which period the monetary gold stock of the country increased by a few hundred millions. They seemed to be interested in increasing their earning assets and were not concerned with the movement of gold. It cannot be said of this period that member banks were enabled to repay the reserve banks merely because the latter purchased investments; rather, the reserve banks purchased investments as the member banks repaid them out of the proceeds of gold imported, or surplus deposits at the reserve banks obtained for incoming currency notes, or as a result of the reduction of reserve requirements; and when once the reserve banks began to purchase investments, these purchases enabled the member banks to continue the process of repayment. The stability of earning assets at approximately 1,200 millions was a subject of comment in the years 1922 and 1923; this stability undoubtedly gave the authorities an inaccurate impression of the degree of stability of earning assets.

If we consider the years 1921-30, it will become clear that, on the whole, movements in securities held by the reserve banks have more often than not been in the same direction as gold movements; that is to say, increases in the monetary gold stock have been accompanied by increases in investments in securities. On the other hand, movements in the total of bills on one side and securities on the other have frequently been in opposite directions. More of this later. The significance of this conclusion here is that as gold was imported, member-bank balances usually increased and reserve-bank credit was reduced. Open market operations are held to be important because reserve banks can therewith control the indebtedness of member banks; but actually, increases in investments have often been followed by reductions in the *total* of earning assets and in rediscounts, and in spite of the reduction of reserve bank credit outstanding, member-bank balances have increased.¹ (Later,

¹ See the interesting charts in the Hearings on Senate Resolution 71. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 125, 127. From 1922-30, the balances of member banks steadily increased with but few interruptions although the largest increases occurred in the years 1922, 1924, and 1927, when the reserve banks were purchasing large volumes of investments; but it is also true that at least in the first two years, large amounts of gold were imported. Reductions of investments were followed by small reductions in balances and sometimes by no reductions; and losses of gold were followed by surprisingly small losses in balances.

it will be apparent that the reserve banks have not paid adequate attention to balances of member banks.¹) The explanation is large movements of gold. Hence one may inquire whether it was the reduction of 620 millions of rediscounts or the increase of 243 millions of reserve-bank balances that accounts for the monetary ease of the year 1923-24 (October to October). Is the emphasis to be put on the balances of member banks, on the distribution of the reserve-bank credit between discounts (debts) and other earning assets, or on the amount of reserve credit outstanding?

At first losses of gold were offset by purchases of securities in 1927-28; but increased speculation and other unfavorable developments were followed by a discontinuance of purchases and soon thereafter by very large sales of securities. By the middle of 1928, securities in the System's investment account were almost exhausted. The results were disappointing, however, as is evident from public pronouncements at this time by several leading officials.² Money rates were increased, which was in accordance with the accepted theory. But instead of disposing of their open market investments, member banks increased their indebtedness at an unprecedented rate. In the previous six years (1922-27), earning assets of reserve banks had seldom attained a figure appreciably in excess of 1,200 millions except at the end of the year. In the early months of the year the level was usually appreciably lower; but in the first half of 1928, the rapid increase of bills rediscounted brought the level of reserve credit above the normal for the year, much above normal for the early part of it, and markedly higher than the level in the early part of 1927. Moreover, open market operations would have been less effective had not the reserve banks been aided by an outward movement of gold of approximately one half billion. In part, the failure may be attributed to indecisive action. The authorities practically discontinued sales for a month in the midst of

¹ See, however, B. M. Anderson, Jr., "An Analysis of the Money Market," *Chase Economic Bulletin*, June, 1928, pp. 6-16.

² "An open market policy has been developed by the system wherein it is possible, at least temporarily, to adjust any unusual credit situations that develop by either buying from or selling to the market." Governor Young before the finance group of the United States Chamber of Commerce, *C.F.Chr.*, 1928 (126), p. 2908.

Also consult the opinions of Dr. Miller, who in contrast to opinions expressed earlier in the year, now (June-July) expressed doubt concerning the future importance of open market operations. *Mim.L.S.*, 1928 (28), x-6055, p. 474; A. C. Miller, "Will Open Market Operations be Discontinued?" *American Bankers' Association Journal*, July, 1928, pp. 75-76; Hearings: *Stabilization* (70: 1), 1928, p. 399.

the period of liquidation early in 1928; besides, adequate weight was not given to the very large inflow of currency in January and February of that year. Also, policies concerning securities held outside the investment account by reserve banks rather impaired the effectiveness of the operations of the Open Market Committee; they constituted an appreciable proportion of the total and remained relatively stable. In the following year, the reserve banks were able to compel member banks to increase to some extent their indebtedness; but any effectiveness of reserve policy along these lines is to be traced to a change in acceptance policy rather than to sales of securities. The sales of securities were of limited significance, both because of the small portfolio held after June, 1928, and because of the unfortunate inward movement of gold in 1929. The volume of reserve credit declined although the volume of indebtedness increased.¹

5. CONCLUSION

Reserve officials first assumed that they could control the volume of their earning assets or reserve credit through a proper open market policy. Later they modified their position, contending merely that they could control the distribution of earning assets; that is, their modified position was that purchases of securities would be followed by a reduction of rediscounts and sales by increased rediscounts. It is still generally held that reserve banks can determine the magnitude of member-bank indebtedness through a proper investment policy; and since member banks are influenced in their lending policy by fluctuations in the volume of their indebtedness, it has been widely held that open market operations constitute the most potent weapon of control at the command of the reserve banks.² It may also be observed that the proportion of rediscounts to reserve credit outstanding, as well as the absolute amount of the latter, increase in periods of expansion.³

But even this doctrine requires serious qualification. Its proponents have conceded that acceptances may be sold to the reserve

¹ *F.R.B.*, 1929, pp. 528-529.

² Thus Whitaker refers to open market operations as the "greatest real instrument of credit policy" and Wesley Mitchell says that they constitute the most effective method of controlling the money market. *American Economic Review, Supplement*, March, 1930, pp. 95, 112.

³ *Cf.* pp. 731-733.

banks and thus an increase in indebtedness may be averted. Moreover, open market operations may be undertaken with a view to offsetting movements of gold or currency; such operations are not likely to be offset by movements in rediscounts. Whether open market operations affect the total of indebtedness is determined by the composite result of the movements of all the factors that determine the cash position of the member banks. The more important of these factors are movements of gold, currency, Treasury and capital funds, changes in reserve requirements, sales of acceptances to the reserve banks, and finally the factor that has received the most attention, open market operations. Those who overemphasize the importance of open market operation, underemphasize the significance of these other factors, gold movements in particular. They put too much emphasis on reserve-bank credit outstanding or earning assets rather than on member-bank balances, which might fluctuate wildly, independently of reserve credit policy. Fluctuations in member-bank balances, as determined by the operation of these numerous forces, determine the extent to which open market operations are offset by increases or decreases in member-bank indebtedness.¹

The doctrine of the relation of member-bank indebtedness and market rates needs further modification and elaboration. Emphasis has been put on this point because the relation between Bank rate and market rate has not always seemed close, and because reserve authorities were inclined to minimize the effectiveness of the Bank rate. Acceptance of this doctrine has played an important part in Federal reserve policy, and yet for many years it was held that the extinguishment of reserve credit absorbed surplus supplies of cash and therefore the rate of interest declined in a more orderly way than before the reserve system was established.² In other words, it was held that a reduction of rediscounts might be considered to

¹ It is significant of the attitude of reserve officials that on one occasion when the increase in reserve requirements was held to be one of the causes of higher rates, it was contended that the increase induced higher rates through its effect on the indebtedness of member banks. *Mo. Rev. of N.Y.R.B.*, May, 1928.

I am not convinced by Hardy's discussion of this point (C. O. Hardy, *op. cit.*, pp. 228-235). The correlation between open market operations and reserves of member banks is not striking; and other factors frequently play a larger part. On the other hand, Hardy correctly points out that gold flows may hamper the open market policies. On this point, I am inclined to be critical of the manner in which he divides his periods, *e. g.* 1927-29.

² *Mo. Rev. of N.Y.R.B.*, July, 1921.

contribute to higher rates. Also, any effect on rates must be exercised through its effects on the supply of, or demand for, banking funds.¹ That concept explains why so much has been made of the point that pressure is exerted to force a liquidation of credit when indebtedness is at a high level.

Why should the emphasis be placed on the volume of rediscounts? Why not go back to fundamentals and put the emphasis on the supply and demand of funds on the market? It might even be held that an increase in rediscounts really depresses rates, for if it brings pressure for liquidation, it is also true that the pressure would be much stronger if these funds were not available. And when both rediscounts and balances of member banks increase, to emphasize the pressure for liquidation, is to neglect part of the problem. In the periods when securities were purchased with a view to depressing rates through a reduction of rediscounts — 1922, 1924, 1927, 1930-32 — the increase of balances might as well have been held to be the explanation of easier rates, and the inflow of gold to explain the reduction of rediscounts.² Thus 100 millions of additional funds that make possible the repayment of the last 100 millions of indebtedness of the New York banks, will not have nearly so great an effect in depressing rates as may an additional 100 millions of purchases of securities that inflate the balances of member banks.

Also, the demand for funds *must* be given consideration in any attempt to account for the movement of market rates.³ For in-

¹ Even Riefler admits that the relation between rediscounts and funds on the money market is not as close as it might be. W. W. Reifler, *op. cit.*, p. 164.

² The latter point does not hold for 1927 and 1932.

³ Since the above was written an able and very interesting article by my colleague, Dr. Currie, has appeared ("Member Bank Indebtedness and Net Demand Deposits in the Federal Reserve System," *Quarterly Journal of Economics*, 1932 [46]). He is to be commended for tackling the problem by studying the relation of indebtedness and deposits or credit rather than indebtedness and rates. Although I am in agreement with him on several points raised in that article, I am unable to agree that the volume of member-bank indebtedness is the most important single factor (especially pp. 509-511, 522) in determining the volume of deposits, and I do not feel that his statistical study, while convincing on several other important points, is convincing on this particular point. Also, is it not at least as reasonable to assume that the causal relationship runs in the opposite direction, i. e. a loss or gain of deposits accounts for an increase or reduction of indebtedness? In other words, member banks borrow when they lose deposits. Moreover, it is not necessary, as Dr. Currie seems to argue, that other factors, e. g. currency and gold movements, and open market operations should account for or fully explain the fluctuations in deposits in order to prove (1) that these factors are important in determining the volume of deposits, and (2) that the volume of indebtedness is not decisive (pp. 518-519). In my opinion, these other factors exercise

stance, in 1928-29 an unusual demand for funds may be considered as an important part of the explanation of the high rates. Then if a high level of indebtedness were considered significant merely because it was a symptom of an overloaned condition, nobody could object; but the argument that it is the controlling factor in the determination of market rates is not tenable. For that reason other explanations of high rates ought to be given more attention; and although in recent years the relation of debts and rates has received more attention, authorities have not always neglected these other considerations. The effectiveness of the Bank rate, the proportion between loans and deposits (member banks are less willing to lend when their loans are excessive in relation to deposits, though one reason is that they are forced to borrow), the loss of deposits (a variant of the above), and the demand for banking funds have all received attention.¹ We are altogether too much inclined to put the emphasis on the supply side when the question of control is discussed.

One other important criticism may be made of this doctrine: it has been adumbrated above. It is the small part that the investment policy of reserve banks plays in the determination of the indebtedness of member banks. This point is especially important from the viewpoint of each reserve bank, for although there may frequently be inverse movements between securities and rediscounts for the System, the inverse relationship is much wider for individual reserve banks: we should not carry the theory of a national money market too far. Purchases of securities and acceptances in the New York market — where they are usually made — are reflected, for the most part, in movements of rediscounts at the New York Bank. A statistical study presented later reveals that the proportion of the total rediscounts held by each reserve bank varies a great deal from year to year, and from month to month. It is rather significant that purchases of open market securities in New York for System account generally deprive other reserve banks

an important and at times a decisive influence on fluctuations in the volume of deposits (as is frequently pointed out in this study) although I certainly would not deny the important influence exercised by the volume of indebtedness. Finally, I should be inclined to say, not as Dr. Currie seems to hold, that reserve officials have paid too little attention to the volume of indebtedness as a guide to policy, but that serious errors have resulted from paying too much attention to it (p. 523).

¹ *Mo. Rev. of N.Y.R.B.*, August, 1925; *ibid.*, June, 1928; *Mo. Rev. of Boston R. B.*, January, 1925; *ibid.*, January, 1927; Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 765-774; *Mo. Rev. of San Francisco R. B.*, April, 1929.

of cash, for they must pay for their share of the investments purchased. The easing effects will only come later as a result of lower rates in New York. In the same manner a deprivation of funds through sales of investments is likely to increase the reserves of the outside reserve banks and not deprive those markets of funds except indirectly through the effects on the New York money market, and to the small extent that these securities are purchased by interests within the district.¹

Money rates throughout the country are undoubtedly influenced by rates in New York; but local conditions are also of importance and a high level of indebtedness in the San Francisco district may be of more importance to San Francisco banks than is a low level of indebtedness to the country as a whole. Individual reserve banks pay increasing attention to the movement of funds into and out of their districts, which very largely accounts for the net change of indebtedness in the district. In particular, Treasury operations, commercial transactions (relations of member banks and their customers with outside banks and the public), gold and currency movements, and the investment policies of the reserve banks determine the state of indebtedness.² Frequently Treasury operations or reserve bank participation in investment policy (or in local open market operations) will offset movements that might cause large fluctuations in indebtedness.³ The important consideration here is that the distribution of indebtedness may be of as great significance as, or even greater significance than, the national volume of indebtedness; and this consideration is neglected by those who adhere to the Strong-Riefler doctrine.

¹ Thus the San Francisco Bank distinguishes reserve credit of the San Francisco Bank put at the disposal of outside markets and its own money market. Securities and acceptances purchased outside of its district either by its agent or on its account constitute resources put at the disposal of outside money markets. Also when the System was disposing of investments in 1929 the San Francisco Bank informed its members that credit at the disposal of outside markets rather than the San Francisco banks was being withdrawn. *Ibid.*, July, 1929; *ibid.*, August, 1929.

² Cf. *Mo. Rev. of N.Y.R.B.*, March, 1926; *Mo. Rev. of Boston R. B.*, January, 1921; *Mo. Rev. of San Francisco R. B.*, November, 1928; *ibid.*, May, 1929; *ibid.*, September, 1929.

³ Thus the large withdrawals of currency in the Chicago District in the middle of 1931 seemed to have been financed week after week by an excess of Treasury expenditures over receipts in the Chicago District, and to some extent by the inflow of funds from other districts, which may have reflected withdrawals of deposits in outside banks or sales of investments by Chicago banks. *Mo. Rev. of Chicago R. B.*, April to August, 1931.

Even if we should accept the doctrine in a less ambitious form it would require elaboration and definition. An increase of indebtedness from 200 to 300 millions cannot be so significant as one from 1,000 to 1,100 millions. A reduction concentrated in one or two financial centers will have greater effects than if distributed over twelve banks. The effects on open markets are much greater than on the more important (but less sensitive) earning assets of banks.

In the next chapter it is argued that officials were misled by fortuitous circumstances and an unjustifiable exaggeration of the compensatory movement of open market operations and rediscounts (or even other earning assets) in the years 1922-26, with the result that they were disappointed at the effects of open market operations in 1927-28.

CHAPTER IX

OPEN MARKET OPERATIONS — CONCLUDED

I. OPEN MARKET OPERATIONS AND REDISCOUNTS, 1922-25

IN THE relatively stable years 1922-26, Federal reserve authorities developed the theory that open market operations were their most potent weapon. At first they assumed that they could determine the volume of their earning assets by purchasing or selling investments; later they believed that, as reserve banks sold securities, member banks increased their borrowing; hence, that although they apparently did not adequately control the magnitude of earning assets, they did adequately control the volume of member-bank indebtedness; and that as member-bank debts increased the banks liquidated with the result that rates in the open market soared.

As early as 1924, officials realized that the inverse relationship does not necessarily hold, for in that year purchases of securities were offset to a large extent by sales of acceptances to the reserve banks; and they had already pointed out that compensatory movements related to the country as a whole rather than to individual districts.¹ Now they found it necessary to explain a marked reduction in earning assets of the reserve banks in the first half of 1924; movements of gold and currency therefore attracted their attention. In other words, they apparently were aware that open market operations would not necessarily be followed by inverse movements of rediscounts.

It has generally been maintained that as securities are sold, discounts are increased; but it soon became apparent that in presenting this argument, other earning assets may be substituted for discounts with better results. Authorities have, however, continued to refer to the compensatory action of securities and discounts. The emphasis is necessarily placed there, because the force of open market operations is supposed to lie in their effects on the volume of member-bank indebtedness. On one occasion Governor Strong referred

¹ The reader is referred to a discussion in the statistical part of this book — see in particular Charts I, IVa-IVd and the accompanying discussion. *F.R.B.*, 1923, pp. 542-543; *ibid.*, 1924, pp. 529-530.

to the compensatory action of securities and discounts, but in his detailed account he compared movements in securities and other earning assets.¹ He emphasized the compensatory movements of the period. An inspection of Governor Strong's figures will indicate the limitations of this position:

| Period | RESERVE BANKS | |
|--------------------------------------|--|---|
| | Public securities (Millions of dollars) | Other earning assets (Millions of dollars) |
| January-May, 1922 | +400 | -430 |
| June-December, 1922 | -330 | +330 |
| March-July, 1923 | -260 | +160 |
| December, 1923-September, 1924 | +510 | -750 |
| November, 1924-March, 1925 | -260 | +260 |

Below are figures compiled from the *Annual Report of the Federal Reserve Board*, 1930. (I have omitted figures when they are not large enough to be of any significance.) Amounts are in millions of dollars:

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-----------------------------------|-----------------------|-----------------------|------------------------|-------------------------|---------------------------------|----------------------------------|----------------------------------|---------------------------------|
| | Jan.- May, 1922 | May- Aug., 1922 | June- Dec., 1922 | March- July, 1923 | June, 1922- July, 1923 | Dec., 1923, Sept., 1924 | Nov., 1924- March, 1925 | Nov., 1924- Feb., 1925 |
| Public securities | +365 | -106 | -211 | -219 | -494 | +469 | -212 | -204 |
| Bills discounted | -483 | -83 | +223 | +206 | +397 | -599 | +162 | +112 |
| Bills purchased | .. | +56 | +123 | -48 | +50 | -232 | +30 | +46 |
| Gold stock | +96 | +72 | +141 | +95 | +285 | +289 | -177 | -125 |
| Other reserve credit .. | .. | +27 | +50 | +12 | +34 | .. | .. | .. |
| Treasury currency .. | +25 | +37 | +90 | +53 | +143 | .. | +11 | .. |
| Money in circulation .. | -77 | .. | +398 | +99 | +383 | -218 | -156 | -165 |
| Reserve balances | +76 | +16 | +20 | .. | +47 | +238 | -27 | .. |
| Unexpended capital .. | .. | .. | .. | .. | .. | -25 | .. | .. |
| Non-member bank deposits | .. | -12 | .. | .. | .. | .. | .. | +12 |

Columns (1), (3), (4), (6), (7) cover the periods discussed by Governor Strong; I have included a consideration of the periods covered by columns (2), (5), (8) because their inclusion reveals that the extent of the (inverse) correlation between other earning assets and securities is dependent in part upon the choice of periods: the

¹ Hearings: *Stabilization* (69: 2), 1926, I, 331-332. Governor Strong's figures do not check with the figures given by the Federal Reserve Board. Part of the discrepancy may be explained by the fact that Governor Strong may have used end of the month figures while the Board figures are monthly averages of daily figures. The discrepancies sometimes result in appreciable differences between Governor Strong's final figures and results based on the Board's figures. The Board's figures for open market operations (reserve bank credit outstanding) check with another series (open market investment account) published by the Board.

correlation (inverse) is not so high for the additional periods considered. Why was a consideration of the period May-August, 1922, omitted in Governor Strong's study? Why was not the period of liquidation June, 1922, to July, 1923, considered as a whole? Why was the period November, 1924, to March, 1925, considered although the period of liquidation of securities did not extend beyond February?

For periods (1) and (3) my results do not substantiate Strong's conclusions to the same extent as do his own figures. Moreover, if he had included period (2) and substituted (8) for (7), he would have found even less support for his position. On the other hand, if he had not broken up the period June, 1922, to July, 1923, he might have obtained more satisfactory results for period (4), but probably less satisfactory results for period (3). The results are more in accord with Governor Strong's conclusions when (3) and (4) are considered as one, (5). I repeat that the compensatory movement would not be nearly so great, if fluctuations in securities and rediscounts were compared, as the usual statement of the relationship would require. But below figures for public securities are compared with rediscounts, acceptances, and other reserve credit: with amounts given in millions of dollars:

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|-----------------------|-----------------------|------------------------|-------------------------|---------------------------------|----------------------------------|----------------------------------|---------------------------------|
| | Jan.- May, 1922 | May- Aug., 1922 | June- Dec., 1922 | March- July, 1923 | June, 1922- July, 1923 | Dec., 1923- Sept., 1924 | Nov., 1924- March, 1925 | Nov., 1924- Feb., 1925 |
| Public securities | +365 | -106 | -211 | -219 | -494 | +469 | -212 | -204 |
| Discounts, acceptances, and other reserve bank credit | -483 | ... | +396 | +170 | +481 | -741 | +203 | +158 |

It may also be pointed out that from October, 1921, to January, 1922, a period in which public securities were first purchased on a large scale in the post-deflation period, bills discounted declined by 409 millions, and 42 millions of public securities as well as 31 millions of acceptances were purchased. But this period was not considered by Governor Strong; it would have been difficult to find compensatory movements in these months and, in fact, for the entire year 1921. The influx of currency and gold in large part determined the fluctuations in earning assets.¹

¹ Governor Strong, however, pointed out that in the years 1920 to 1923, an influx of a billion of gold was followed by an increase of but 5 billions of deposits instead of a possible increase of 10 billions. B. Strong, *op. cit.*, p. 231.

At the Congressional hearings in 1926 and early in 1928, much emphasis was placed on the significance of open market operations; it was almost universally held to be the most important weapon of the reserve banks.¹ Perhaps no single factor explains this faith in the effectiveness of open market operations so clearly as does the assumption that reserve banks could determine the amount of member-bank indebtedness by the use of proper open market operations. But the reserve system's power is distinctly limited. Fortuitous circumstances and the method of selection of periods in the years 1922-26 explain the tendency to rely too much on the stability of earning assets. The foregoing table gives proof that reserve banks did not adequately control the amount of member-bank indebtedness even in the years 1922-25. It has been readily admitted at times that the sale of acceptances has been an escape for member banks, and hence Governor Strong properly compared the fluctuations in other earning assets rather than rediscounts with movements in securities. But whether a sale of securities results in a discount of an approximately equal amount or even an increase in other earning assets, is determined largely by the movement of gold and currency and the reserve requirements of member banks. It cannot even be maintained that a sale of securities results in a rise of discounts above the level that would have been maintained had a given open market operation not been undertaken; for there seems to be a large element of elasticity in currency and reserve requirements, and moreover, acceptances may be sold to the reserve banks. Governor Strong referred to a discrepancy of over 200 millions in the inverse movements of securities and other earning assets in the period December, 1923, to September, 1924, as though such discrepancies were unusual, and he attributed it to an influx of gold. It will readily be appreciated that the influx of gold is an inadequate explanation unless one also considers that a reduction of the circulation of 218 millions offset an increase in reserve requirements of 238 millions. A reconsideration of each of the eight periods reveals the following facts:

¹ Hearings: *Stabilization* (70:1), 1928, pp. 145, 191, 399; cf. A. C. Whitaker, "Federal Reserve Position and Policies," *American Economic Review, Supplement*, March, 1930, p. 95; "Federal Reserve Policies," *American Bankers' Association Journal*, September, 1928, p. 232. Chandler has been skeptical, however. "The Changing Aspects of Our Gold Policy," *Commerce Monthly*, March, 1925 (VI), pp. 3-12.

(1) *January-May, 1922.*¹

An excess of the reduction of other earning assets over the increase in securities is accounted for by an influx of gold and an increase of Treasury currency. (The latter is a composite term for the net effect of the Treasury's operations in relation to the money market, both as a receiving and disbursing organization and an issuer of currency.²) The member banks repaid the reserve banks out of the proceeds of purchases of securities by the reserve banks and the additional cash received from the Treasury. An increase of reserve balances, which constitutes a demand for reserve bank credit, was offset by a reduction of money in circulation.

(2) *May-August, 1922.*

A reduction of 106 millions of securities was not offset by an addition of other earning assets; increases in acceptances and other reserve credit offset a reduction of bills discounted. That the sale of securities was not offset by an increase of other earning assets, is to be explained by a net increase of the monetary gold stock and of Treasury currency.

(3) *June-December, 1922.*

Sales of public securities were offset by a corresponding increase of discounts. An increase of approximately 400 millions of money in circulation is to be weighed against large increases in bills purchased and in monetary gold and a moderate increase in other reserve credit.

(4) *March-July, 1923.*

Bills discounted (increase) and securities sold were of approximately equal dimensions, as were increases in currency in circulation and gold. An increase in Treasury currency offset a reduction of bills purchased.

(5) *June, 1922-July, 1923.*

A very large increase in gold and a large increase in Treasury currency offset a very large increase in money in circulation and an appreciable increase in reserve balances. Sales of securities were offset to the extent of about four fifths by increased discounts and one fifth by bills purchased and an increase in other reserve bank credit.

(6) *December, 1923-September, 1924.*

A very large increase of securities held is to be set against an approximately equal reduction of rediscounts, and a very large reduction of money in circulation offset an increase of reserve balances, and a reduction of bills purchased offset an increase in the monetary gold stock.

¹ Factors that increase the demand for reserve credit: increase of member-bank balances, outflow of gold, increase of currency notes in circulation, and a reduction of Treasury currency. Movements in the opposite direction reduce the demand for reserve credit.

² Cf. *F.R.B.*, 1927, p. 633 and *ibid.*, 1929, p. 432, for an explanation of Treasury currency and the capital item.

(7) *November, 1924-March, 1925.*

There were approximately equal (inverse) movements of securities and other assets (bills rediscounted and purchased), and a large loss of gold was offset by an almost equally large reduction of money in circulation.

(8) *November, 1924-February, 1925.*

The discrepancy between movements in securities and other assets was larger than in the previous period; the increased discrepancy is explained by the excess of the reduction of money in circulation over the loss of gold as compared to an excess of the loss of gold in the period ending March, 1925.

In the years 1922-25, sales of securities were generally followed by increased discounts of more or less equal proportions, and purchases of the former by reduction of discounts; but acceptances as often as not fluctuated in the opposite direction from discounts, and when there was a discrepancy between the inverse movement of securities and discounts, movements in bills purchased might contribute toward a reduction of the discrepancy, but as frequently the discrepancy was increased as a result of the fluctuations in bills purchased. Also, the compensatory movements between securities and bills or securities and other earning assets (bills rediscounted and purchased) were not so close as Governor Strong and others contend. That the agreement was not so close, may be ascribed to large movements of gold in almost every one of the periods discussed and to movements in Treasury currency in several of the periods. That there was any correlation, may be explained by the large movements in money in circulation which were in the same direction as the movements in gold in every period but (1) and (6), and hence offset the influx of gold. An increase of the monetary gold supply is reflected in an increase of balances, but an increase of money in circulation is at the expense of bank balances. In the first period, gold movements were moderate; in the sixth period, a very large increase in member-bank balances was made possible largely by the influx of gold; and, therefore, the reduction in circulation made it possible appreciably to reduce earning assets.

2. OPEN MARKET OPERATIONS AND REDISCOUNTS, 1927-29

The agreement in 1922-25 was not close, but authorities were inclined to exaggerate the extent of the inverse relationship and to neglect to consider the possibility of an agreement even narrower. On the whole, open market operations were comparatively unim-

portant in 1925-26; the tendency was to maintain stable amounts of public securities, and the volume of reserve credit outstanding was also relatively stable. Active policies were restricted to rather brief periods.¹ In the years 1927-29, officials learned that they could not control the discounts and sales of bills to the extent that they had anticipated.² In the period May-December, 1927, member banks did not reduce their debts, nor were other earning assets reduced although the reserve banks purchased approximately 300 millions of securities. Reserve banks increased their discounts by 56 millions, and the market sold 145 millions of bills to them during a period in which they sold 315 millions of securities. In spite of a loss of gold of 235 millions and an increase in money in circulation of 188 millions, member banks increased their reserve balances by 137 millions. Purchases of securities failed of the anticipated results because, in addition to large demands for currency, reserve banks were faced with large losses of gold. Members showed little disinclination to borrow but borrowed in spite of large losses of cash that accompanied sales of securities, and borrowed in order to increase their balances.

Below are figures compiled from the *Annual Report of the Federal Reserve Board*, 1930. Amounts are given in millions of dollars with unimportant changes omitted:

| | May- Dec., 1927 | Dec., 1926- Dec., 1927 | Dec., 1927- July, 1928 | Dec., 1927- Feb., 1928 | Feb., 1928 | Aug.- Dec., 1928 | Dec., 1928- July, 1929 | July- Nov., 1929 |
|---------------------------------------|-----------------------|---------------------------------|---------------------------------|---------------------------------|---------------|------------------------|---------------------------------|------------------------|
| Public securities | +315 | +284 | -397 | -200 | +9 | +53 | -116 | +168 |
| Bills discounted | +56 | -139 | +561 | -58 | +42 | -48 | +83 | -143 |
| Bills purchased | +145 | .. | -193 | -18 | -17 | +305 | -408 | +221 |
| Gold stock | -235 | -65 | -303 | -39 | -38 | +24 | +193 | +39 |
| Other reserve credit | +11 | -15 | -12 | -28 | .. | +29 | .. | .. |
| Treasury currency | +28 | +47 | -14 | -20 | .. | +16 | .. | .. |
| Money in circulation | +188 | -83 | -302 | -339 | .. | +265 | -244 | +81 |
| Reserve balances | +137 | +181 | -75 | -31 | .. | +93 | -33 | +187 |
| Unexpended capital | +7 | +12 | +20 | .. | .. | +20 | +24 | +19 |
| Non-member bank deposits | -12 | .. | .. | .. | .. | .. | .. | .. |

For the year 1927 (December, 1926, to December, 1927), the results were more satisfactory to the supporters of the doctrine under

¹ *F.R.A.*, 1925, p. 5; *ibid.*, 1928, p. 4; *F.R.B.*, 1927, p. 321; *C.F.Chr.*, 1927 (124), p. 2695.

² A more intensive analysis is presented in Volume II and the period 1930-33 is also discussed there.

consideration than they were for the last 8 months of the year; but the open market policy had been introduced in May. The increase in earning assets was smaller than for the months May to December and an appreciable reduction of money in circulation offset a very large increase in balances. An appreciable loss of gold is to be set against an increase of Treasury currency. The reserve banks began to sell securities early in 1928 and continued to sell large quantities until July of that year. The inverse movements of securities and other earning assets (not discounts) were remarkably close. Large losses of gold (303 millions) were not gravely disturbing because the reduction of money in circulation was unusually large (302 millions) and member banks reduced their balances by 75 millions. This reduction of balances was not entirely a measure of effective policy but was also a result of the loss of deposits following the exports of gold, open market operations, increases of capital, and the like.¹ That the reserve banks were now successful in inducing member banks to borrow heavily may be attributed as much to the fortunate outward movement of gold as to sales of securities. In support of this fact, the movements in securities, bills purchased, discounts, money in circulation, and gold for the period December, 1927, to February, 1928, are significant; discounts and investments in bills were *reduced* as securities were disposed of; for money in circulation declined appreciably, and the outward movement of gold was only *moderate*. The hesitation in the following month is very characteristic of Federal reserve policy; in that month, 9 millions of securities (additional) were purchased and, since the influx of currency had stopped, authorities lost an opportunity to drive member banks into debt if that was their motive. Undoubtedly, their hesitation at this point and their failure to sell more vigorously in January and February, when the reserve banks had to contend with the influx of currency, detracted from the effectiveness of their policy. An unprecedented increase in discounts of 496 millions occurred in the months of April, May, and June; but by then it lacked the required effect on money rates and the volume of open market investments of member banks.² On February 28, 1928, loans and investments of all member banks amounted to 33.7 billions, and by June 30 they had increased sensationally to 35.1 billions.

¹ *F.R.A.*, 1928, p. 18. This subject is discussed in Volume II.

² *F.R.B.*, 1928, p. 599.

A policy of ease was introduced once more in August, 1928, and from then to December increased purchases of acceptances made it possible for member banks to satisfy a demand for 265 millions of currency and to increase their balances by 93 millions. Movements in public securities and bills discounted offset each other and were on a relatively small scale. In the first seven months of 1929, large imports of gold and a vast inflow of currency made possible a reduction of 400 millions in bills purchased; once more, sales of securities played a minor rôle: a reduction of 116 millions of securities over a rather extended period was offset by an increase of discounts of 83 millions. Investments in public securities had been reduced to a very low point by the middle of 1928; the reserve banks now disposed of a large part of the remainder as well as the securities that had been accumulated from August to December. But from July to November, 1929, purchases of securities played a more important part. Large purchases were offset by a reduction of discounts, and an increase in excess of 220 millions in bills purchased and of 40 millions in gold enabled member banks to increase their balances by 187 millions and put 81 millions of additional money into circulation.

In the years 1922-26, then, earning assets were at a relatively steady level compared to that of the years 1927-29. Authorities should now no longer be deceived by the theory that purchases are offset by increased discounts, or by the theory that movements in securities are offset by inverse movements in other earning assets (rediscounts and purchases).¹ Also, acceptances played an important rôle in the years 1927-29. When large purchases of investments were made in 1927, anticipated reductions of discounts did not occur. Unfavorable gold and currency movements and a very large increase in balances were offset by purchases of securities, increased rediscounts, and sales of bills to the reserve bank. In the months of January, February, and from April to June, 1928, the authorities were successful in that member-bank indebtedness was increased by 519 millions; but the favorable results are to be ascribed as much to a fortunate outward movement of gold and a reduction of acceptances as to sales of securities. Any additional increase in indebtedness was probably not an important factor for any extended period from July, 1928, until the collapse in October, 1929, and the large increase of the first half of 1928 had failed to bring the desired

¹ Hearings: *Stabilization* (69: 2), 1926, I, 331.

results. Because the portfolio of investments in the System's account was almost exhausted, because the outward movement of gold did not continue, and because the authorities deemed it necessary to finance currency withdrawals by purchases of acceptances, purchases of securities were of negligible significance in the remaining months of 1928; and in 1929, the portfolio of securities was too small to be a factor in the light of very large gold and currency movements. That there was an appreciable increase in indebtedness for the year July, 1928 to July, 1929, is to be explained by the introduction of a vigorous acceptance policy in the early months of the latter year.¹

It is difficult to understand why reserve officials put so much faith in their open market operations. Undoubtedly, they were misled by the remarkable stability of their earning assets in 1922 and 1923; even in 1924, there was a tendency to consider the year as a whole instead of to single out for attention the large movements (inverse) in the first and second halves of the year.² Obviously they did not profit from the experience of 1922-23, when their investments in securities had been reduced to 73 millions; nor did they sufficiently consider the fact that their success in 1922 and 1924 had been possible because they were aided then by favorable movements of gold and currency. In spite of expert opinion to the contrary, it seems that reserve banks have had singular success with open market operations when their object has been to expand rather than contract. The notable performances were in 1922, 1924, and 1927.³ (In 1922, it is true, there was no concerted policy, and no objective but increased earnings; but purchases resulted in monetary ease.) On the other hand, sales of almost the entire portfolio of securities in 1922-23 were accompanied by a notable increase (24.2 to 26.5

¹ *F.R.B.*, 1929, p. 528.

² In July, 1924, the Board commented on the failure of the compensatory movements in securities and discounts to operate as usual; but in spite of the reduction of earning assets, the Board expressed a pious hope that it could still adequately control the fluctuations in earning assets. ". . . but it seems not unlikely that these purchases have resulted in some net addition to total earning assets and thus have enabled the reserve banks to maintain a fuller operating contact with the market." *Ibid.*, 1924, p. 530. In the *Annual Report*, the large movements of earning assets upward in the first half of the year and downward in the second half were a subject of comment, and the importance of gold and currency movements was recognized. *F.R.A.*, 1924, p. 5. But in December, 1924, the Board commented on the inverse movements in open market operations and discounts for the year. *F.R.B.*, 1924, p. 905.

³ The period 1930-32 is discussed in Volume II.

billions) in the total loans and investments of member banks from June 30, 1922, to June 30, 1923. The success was not so marked as has generally been assumed, even if we admit that the expansion did not continue into the second half of the year 1923, and that the indebtedness had increased in the first half as a result of the sales of securities. Moreover, an abnormal increase in money in circulation of 383 millions which aided the reserve banks in the fulfillment of their program, must be considered. Perhaps the fatal error has been the failure to allow adequately for the possibility of large movements in gold and currency and economies in reserves, resulting from transfers of demand to time deposits, for example.¹ In the years 1922-26, these movements were not on so large a scale as in earlier and later years, and, moreover, they tended to offset one another and facilitate the policies in operation. In the years 1927-29, movements of gold were favorable at first and strengthened the position of the reserve banks; but the result again was that the amount of indebtedness was determined in large part not by open market operations but by movements of gold. Moreover, movements in currency and (at intervals) in reserve balances and (later) in gold were not in the desired direction; and acceptance policy began to play a part unexpected by the supporters of the open market-indebtedness doctrine.

3. SUPPLY AND DEMAND FOR RESERVE-BANK CREDIT

Although by 1925 authorities began to point out that the amount of reserve-bank credit outstanding was determined by the movements in gold and currency,² and although the Board soon thereafter began to prepare careful studies on the sources of supply and demand of reserve-bank credit, still there was no evidence of a disposition to lose faith in the effectiveness of open market operations or to deny the validity of the doctrine that sales of securities would be offset by an increase in rediscounts or other earning assets.

It was carefully pointed out that the increase in member-bank credit outstanding in the years 1920-27 bore no relation to any in-

¹ Occasionally, the open market-indebtedness doctrine was modified in the suggested manner. Thus the Board pointed out that sales of securities prevented member banks from reducing their indebtedness in 1928 to the full extent of the inflow of currency. *F.R.A.*, 1928, p. 4.

² *F.R.B.*, 1926, pp. 1-2. It was pointed out that an increase in member-bank borrowing was the result of the export of gold.

crease in reserve-bank credit outstanding.¹ It is rather significant that in the *Bulletin* emphasis was on reserve-bank credit outstanding rather than on member-bank balances.² Apparently the assumption (unjustifiable in my opinion) generally has been that the reserve banks could not be held responsible for increases in member-bank balances and the accompanying increase in member-bank credit when the increase in the former was not related to increases in reserve-bank credit. In emphasizing earning assets, the stability of earning assets, and reserve-bank credit outstanding, authorities were prone to deny adequate consideration to other factors that influenced the magnitude of member-bank balances, and, also, to disregard the possibility of controlling fluctuations in member-bank balances. In 1925 and 1926, the Board repeatedly pointed out that fluctuations in reserve-bank credit were explained by movements in gold, and this position as well as a statement that public securities (not earning assets) were being maintained at a stable level, are evidence that they were becoming aware of the limitations of their doctrine of stable earning assets.³ In 1928-29, they declared more frequently that increases in reserve-bank credit were explained by movements of gold, and they put increasing emphasis on fluctuations in the demand for currency.⁴ It is somewhat significant that in

¹ In December, 1923, it was pointed out that the loans and investments of member banks had increased by 500 millions since 1920 although they were borrowing nearly 2 billions less from the reserve banks. *F.R.B.*, 1923, p. 1252. In January, 1925, the Board commented on an increase in member-bank credit outstanding of 5 billions since the spring of 1922 although earning assets of reserve banks had not increased. *Ibid.*, 1925, p. 3. The Board compared the movement of earning assets, which had declined spectacularly in the years 1920-24 with the movement of member-bank balances, which had increased rapidly in 1922 and 1924. *Ibid.*, p. 149. In 1927, it was noted that member-bank reserves had increased by 129 millions and their loans and investments by 3 billions in a period of two years although reserve credit outstanding had increased but 7 millions. *Ibid.*, 1927, p. 628.

² In his memorandum on the discount rate controversy, Hamlin reveals the extent to which the reserve authorities even today put the emphasis on reserve credit: an increase in rates cannot be justified in the face of a decline of reserve credit; and the improvement in the situation is evident in the reduction of reserve credit. *Mim.L.S.*, 1930, X-6737, pp. 297, 310.

³ *F.R.A.*, 1925, p. 5; cf. *F.R.B.*, 1925, p. 147.

⁴ By 1926, the Board began to emphasize the relation of currency and Federal reserve credit outstanding. *Ibid.*, 1926, pp. 468-469. In 1928-29, the Board found it expedient to point out that in the last decade fluctuations in reserve-bank credit were to be attributed more largely to movements of currency and gold than to fluctuations in the balances of member banks. *Ibid.*, 1928, pp. 374-375; *ibid.*, 1929, pp. 593-594. The Board could thus justify the recent increase in reserve-bank credit, for it had been part of the philosophy of the System that the reserve banks were to finance increases

1928 officials were unusually reticent concerning the movements in member-bank balances; a large increase in the light of their theory of open market operations and in the wake of large losses of gold and large sales of securities was not to be proclaimed. The Board had disclaimed any responsibility, in 1924, for an increase in member-bank balances in excess of 200 millions, although approximately 500 millions of securities had been purchased;¹ instead, the Board pointed out that the increase in balances corresponded to an increase in the monetary gold stock.² Both in 1927 and 1928, however, the reserve banks were responsible for significant increases in the balances of member banks, and early in 1929 the Board announced that reserve banks could control the rate of increase of the reserves of member banks.³ The authorities finally recognized at least that it was necessary to concentrate attention on the balances of member banks, and that fluctuations of balances were not to be associated exclusively with movements of gold and currency. Moreover, it was an admission that exclusive attention was not to be given to the amount of member-bank indebtedness, but rather to the total reserve-bank credit and, more important, to the balances of member banks. But gold movements which were reflected in a reduction of reserve-bank credit outstanding now upset the policies of the Board; and the result was that the emphasis was shifted again to the amount of indebtedness: for a reduction of reserve-bank credit of 200 millions was accompanied by firmer rates.⁴ Thus when the unprecedented increase of indebtedness in the first half of 1928 failed to cause the desired contraction, the authorities early in 1929 shifted their emphasis to member-bank balances, reserve-bank credit outstanding, and their capacity to control the magnitude of balances by a proper credit policy. But imports of gold and an inflow of currency upset their plans; these factors as well as economies of reserves resulted in a large reduction in reserve credit outstanding; and the reduction in reserve credit was not reflected in a corresponding reduction of balances and an adequate pressure to liquidate. It is significant that the indebtedness of member banks had reached a level in June, 1928, several times greater than the level

in currency and gold. The Board did not, however, deny that the trend of reserve credit had been upward in recent years as a result of increased deposits and increased reserve requirements.

¹ *Ibid.*, 1924, p. 904.

³ *Ibid.*, 1929, p. 176.

² *Ibid.*

⁴ *Ibid.*, p. 359.

that Governor Strong had estimated in 1926 as adequate to force member banks to liquidate.

4. CONCLUSION

It is clear that the inverse relation of open market operations to bills rediscounted or other earning assets was not so close in the years 1922-25 as Governor Strong and others contended.¹ Moreover, reserve banks were able to control the volume of member-bank indebtedness to a greater extent than otherwise would have been possible, as a result of the increased demand for currency and the increase in member-bank reserves which offset increases in the monetary gold stock and Treasury currency. In the years 1927-29, movements in these factors were not so favorable to the fulfillment of the policies of the reserve banks as they had been in earlier years. In the second half of 1927, purchases of securities were followed by additional rediscounts and sales of acceptances to the reserve banks to offset the loss of cash accompanying open market operations, offset exports of gold, and cover increased reserve requirements. In the first half of 1928, the reserve banks disposed of almost all investments in the System account, in order to compel member banks to increase their debts; and although their policies were jeopardized by the large inflow of currency and economies in reserves, indebtedness mounted at an unprecedented rate. Unfortunately, however, the increase in debts lacked the restraining effect that had been anticipated. The increase in market rates was marked although it was not so great as might have been anticipated in view of the extent of the increase of indebtedness; but the greatest disappointment was the disinclination of member banks to liquidate their open market investments in spite of the unprecedented increase in debts.² In the last year of the stock market boom, sales of securities played an even less important part; the portfolio

¹ In 1926, Governor Strong minimized the effectiveness of open market operations on the grounds that more cash was not put on the market as a result of purchases; debts of member banks were reduced. The only exception he grudgingly conceded was that debts could not be repaid if member banks were not indebted. But the question whether open market operations might be overshadowed by movements in other variables was not raised. Hearings: *Stabilization* (69: 2), 1926, 1, 466-468. Balances were increased in 1924 and 1927, and in the latter year, balances increased when securities were purchased and rediscounts increased.

² The Board expressed its disappointment in the *Annual Report* for 1928. *F.R.A.*, 1928, pp. 4-5.

of securities, at least, was virtually exhausted, and member banks were able to prevent a marked increase in borrowing above the level of June, 1928, because of a fortunate reversal in the direction of gold flow and economies in currency and balances. They became less dependent on reserve-bank credit outstanding although rediscounts increased.

It has been seen that in the years 1922-25, authorities stressed reserve credit outstanding or earning assets rather than the balances of member banks.¹ In other words the reserve banks implicitly denied any responsibility for additions to the balances of member banks. This attitude is easily understood, for this was a period in which very large imports of gold were made; but the result has been an over-emphasis on the significance of open market operations and on fluctuations in member-bank indebtedness. It was a realization that they could not control the volume of earning assets that led authorities to place so much emphasis on fluctuations in member-bank indebtedness. But if more attention had been given to the fluctuations in the balances of member banks, it would have been realized that monetary conditions are influenced by the amount of cash of member banks, as well as by the amount of their indebtedness; that the distribution of earning assets may be largely determined by the magnitude of member-bank balances considered in relation to monetary conditions; and, perhaps, reserve authorities would have taken a broader view of their responsibilities and the objective of open market operations.² They might have attempted to control the amount of cash at the disposal of member banks as the Bank of England has done in recent years. Success might not have been forthcoming, however, especially in the light of the large movements in gold and currency, and the tradition that member banks are entitled to rediscounts and that reserve banks satisfy demands for additional currency and gold for export; yet such emphasis would have been advantageous because exaggerated hopes would not have been placed in the capacity to control adequately the distribution of earning assets and in the restraining effects of an increase in indebtedness.

¹ The New York Federal Reserve Bank commented on a Federal reserve investment policy in 1922 that was reflected in a stable *supply of funds on the market*. *N.Y.R.B. Ann.*, 1922, pp. 10-11. Such statements were exceptional.

² Anderson in discussing the period 1927-28, puts the emphasis on the effects of the various factors on the balances of member banks. B. M. Anderson, Jr., "An Analysis of the Money Market," *Chase Economic Bulletin*, June, 1928, pp. 6-21.

True, in the last few years, reserve banks have paid somewhat more attention to the balances of member banks and to the variables that determine both the magnitude of member-bank balances and the demand for reserve-bank credit. But even in their painstaking studies of the sources of supply and demand for reserve-bank credit, the emphasis has been on reserve-bank credit, and fluctuations in member-bank balances have been considered merely one contributing factor. The official attitude has been that fluctuations in reserve-bank credit have been determined largely by fluctuations in gold and currency, and when something has been said concerning balances of member banks, it has been pointed out that increases in bank balances were to be associated with currency or gold movements rather than with credit policy.¹ It has been repeatedly demonstrated in the last few years, when some attention has been given to balances, that increases in balances or fluctuations in reserve credit are to be explained by movements in gold and currency, and hence the inference was that reserve banks were not to be held responsible for the instability of reserve credit or for the increases in member-bank balances. If increases in member-bank balances occurred when reserve banks were purchasing securities, some other explanation of the increase was invoked; in particular, imports of gold.² Early in 1929, the Board for the first time — and then only momentarily — took the position that the reserve banks could control the rate of growth of member-bank balances through the use of a proper credit policy;³ but they had failed to realize the possibility of large imports of gold and economies in reserves and currency. In 1930 Governor Young modified the position taken early in 1929: "Growth of reserve requirements arising from growth of deposits is too slow

¹ *F.R.B.*, 1929, p. 242. In the years 1922-27 (July to July) the gold stock increased by 772 millions, Treasury currency stock by 182 millions, and member-bank balances by 477 millions; but reserve credit outstanding declined by 55 millions. *F.R.A.*, 1930, pp. 32-33.

² In the *Bulletin*, it was contended that an increase of member-bank balances in 1924 was explained by the influx of gold for the year. Purchases of securities were conveniently forgotten. *F.R.B.*, 1924, p. 904. In December, 1927, the Board, commenting on a large increase in member-bank balances, pointed out that the increase in holdings of public securities was offset by losses of gold of approximately equal amounts. *Ibid.*, 1927, p. 799. But the Board might have also considered the discount policy (and the increase in rediscounts) and especially the increase of bills purchased.

³ *Ibid.*, 1929, p. 176. In 1928, the Board had evinced some interest in member-bank balances. They were apparently beginning to assume some responsibility, for it was carefully pointed out that an increase in member-bank credit had not required a corresponding increase in reserves. *Ibid.*, 1928, pp. 613, 824.

to afford an adequate means of credit control, particularly in view of maladjustments in our reserve law."¹ He therefore approved of sales of securities with a view to putting member banks in debt and renounced the position taken early in 1929 that the objective was to control the balances of member banks.

In the past, open market operations have not played the part in Federal reserve policy that has been popularly assumed. In the future, their effectiveness may be increased if gold and currency movements attain a more normal level, if returns on the open market investments of member banks do not rise abnormally, and if the reserve system continues to refuse to jeopardize its credit policy in order to support the acceptance market. Nevertheless, so long as member banks retain the *right* to rediscount and reserve officials assume that they are obligated to offer banks facilities freely for the purpose of meeting currency demands and exports of gold,² open market operations will be limited in their scope. So far, at any rate, reserve banks have had to be content with attempts to determine the indebtedness of member banks rather than their supplies of cash. The effectiveness of open market operations thus limited in scope depends, therefore, on their capacity to control adequately the volume of debts, the extent to which reserve banks imbue member banks with a disinclination to borrow when borrowing is profitable, and the relative level of the Bank rate and the return on open market operations. But the scope of open market operations is too limited so long as attention is concentrated almost exclusively on reserve-bank credit and member-bank indebtedness, with control of the balances of member banks neglected.³ Moreover, the present

¹ *Mim.L.S.*, 1930 (32), x-6618, pp. 596-597.

² "In the absence of provisions for an elastic currency or of ample gold reserves the combined demand during 1925 for currency and for gold would have imposed a serious strain on the credit structure of the country and would have made it necessary for banks to reduce their loans to borrowers. Under the Federal Reserve System, however, the reserve banks in 1925 were able to make available to member banks the additional credit needed to meet domestic financial requirements, and at the same time to pay out reserves in meeting the demand for gold exports." *F.R.A.*, 1925, p. 1.

In a similar vein, Governor Young said in 1930 that the reserve banks "must furnish the credit necessary to meet these demands when they arise, regardless of whether the reserve bank policy is directed toward easier or firmer conditions in the money market." (He referred to the demand for currency and gold.) *Mim.L.S.*, 1930 (32), x-6618, p. 595.

³ I refer the reader to Chart I in the statistical part of this book and the accompanying discussion (p. 719). It is there argued that neither by purchases and sales of securities nor by adjusting the volume of reserve credit is it possible to determine the balances of member banks.

policy entails a neglect of the influence of gold and currency movements, and the control of the level of indebtedness is conditioned on the absence of unfavorable — to reserve policy — movements in currency and gold and balances of member banks, and the repudiation of an acceptance policy generally adhered to in the years 1915-29.

It is also necessary to recall that the peculiar problems of each reserve bank are neglected when the emphasis is placed on the relation of indebtedness on a national scale and market rates. Each district is very much interested in the inflow and outflow of funds resulting from commercial and Treasury transactions; these movements play a large part in the determination of the level of indebtedness in each district. But even in these regional studies to which reference has already been made, the attention paid to balances of member banks is inadequate.

KEYNES ON OPEN MARKET OPERATIONS

Keynes' comments on open market operations in his recent *Treatise on Money* are an example of the extreme optimism with which they may be considered and offer an opportunity to emphasize some aspects of the problem.¹ His enthusiastic approval of the policies of the reserve system is scarcely justified. "The successful management of the dollar by the Federal Reserve Board from 1923 to 1928 was a triumph — mitigated, however, by the events of 1929-30 — for the view that currency management is feasible, in conditions which are virtually independent of movements of gold." He adds, however, that in 1923 because of the increased demand for Bank money the ammunition was not exhausted in spite of the large gold inflow.² It is possibly assumed that the reserve banks disposed of securities in order to offset imports of gold; but such assumption is not justified, for expansion on the part of member banks occurred at an unprecedented rate and, to some extent, the reserve banks introduced secondary expansion. In few periods has expansion been so rapid: it was concealed in part by the undue attention given to commodity prices and the temporary sluggishness of a large proportion of the newly

¹ Thus he writes that open market operations give the central bank complete control; the only weakness is that the member banks may vary their holdings of cash. He admits that the enforcement of deflation offers some obstacles, for member banks object. J. M. Keynes, *op. cit.*, II, especially pp. 232, 252-257. He also says that the Bank of England can make its Bank rate effective by altering the quantity of Bank money, and that even the threat of altering the quantity may be as effective as an actual alteration. *Ibid.*, p. 366.

² *Ibid.*, pp. 258-259.

created deposits. (They were to become very active in 1928-29.) It would be nearer the truth to assert that the reserve banks accentuated the effects of the inward movement of gold by purchases of investments, than to say that the imports of gold were offset by open market operations. True enough, the large amount of reserve-bank indebtedness outstanding in 1920-21 made possible the absorption of a large amount of gold in the repayment of debts to the reserve banks.

Keynes contends that Burgess, Strong, and Chandler underestimate the efficacy of open market operations, and in particular he is critical of the emphasis given to the theory that open market operations are followed by inverse movements in rediscounts.¹ He rightly contends that the offsetting movements were only partial. In his view, the central bank is required to control the volume of Bank money, and if member banks rediscount to the extent that they have been deprived of cash through open market operations, or repay debts as the reserve banks purchase investments, the control of the central bank is jeopardized; elsewhere, however, he admits that the possibility of offsetting movements is greater in the United States than in Great Britain.² It has been observed above that reserve officials were vexed when they learned that they could not control the volume of earning assets, and, also, that the offsetting movements in rediscounts and sales of acceptances were not nearly equal to the movements in securities, as Strong and others have assumed; but the point that Keynes seems to have missed is that the officials *now* consider these offsetting movements a *weapon*, not an *obstacle* to control. In his discussion of open market operations in the United States, Keynes appears to have neglected the more important objective of the control of bankers' money, an objective adequately considered by him elsewhere; his emphasis on the relation of investments and rediscounts leads to the conclusion that central banks should look to the volume of earning assets, and hence he falls into errors similar to those made by the officials whom he criticizes. The assumption is, of course, that the control of earning assets will confer a control of banking reserves; but this does not necessarily follow, for large gold and currency movements and also changes in reserve requirements will upset the plans of officials operating primarily to control the volume of earning assets. This much may be conceded: the capacity to offset gold and currency movements, or the possibility of a refusal to offset, entails important powers; and the attempt to offset or to refrain from so doing will be reflected in the fluctuations in member-bank balances; but it must also be conceded that movements of gold and currency may be large enough to make such offsetting movements impracticable. That is probably the explanation of the concentration of

¹ *Ibid.*, pp. 257-258.

² *Ibid.*, pp. 256-257.

attention on reserve-bank credit rather than bankers' money or member-bank balances by reserve officials.

The most important criticism of Keynes is to be made, however, on the assumption that his objective is to control the volume of bank money, for a consideration of the *Treatise* reveals that he is primarily interested in that volume. But American experience verifies the conclusion that reserve banks have exercised little control over the volume of bank money, and even when it might ostensibly be held that fluctuations in the balances of member banks were to be associated with the investment policies of reserve banks, reserve officials denied any such responsibility. Except in rare instances, they have been silent on the level of reserves of member banks, or have denied any control over them; and the fluctuations in reserve credit outstanding have generally been associated with movements in currency and gold rather than with reserves. In particular they have held that appreciable reductions in the balances of member banks were not practicable, for catastrophic liquidation would be required; and also that balances in general were too stable to offer an opportunity for the exercise of control.

Keynes' optimism concerning the possibility of controlling the balances of member banks is incomprehensible in the light of the limited scope of open market operations of the Bank of England.¹ As enthusiastic as he is concerning the effectiveness of this newly acquired weapon of control, he cannot claim more for it than its use to offset gold movements; and occasionally the Bank has been criticized for not carrying its operations so far.² Perhaps some day the Bank of England will carry on in the

¹ Keynes points out that no central bank has carried open market operations out "à outrance." He recognizes the fact that the Bank may be hampered by the inadequate supply of acceptable securities and that it may set up an artificial difference between their price and others. (Our experience in 1922 and 1928 will amply bear him out; in truth, the limitations and dangers are greater than Keynes assumes.) In his opinion, the central bank ought to continue to purchase to the point of satisfying to saturation the desire of the public to hold saving deposits or of exhausting the supply of such deposits in the contrary case. It is not beyond the power of the central bank (international complications apart) to bring the long-term market rate of interest down to any figure at which it is prepared to purchase long-term securities. This policy may involve purchases of bonds up to prices far beyond what it considers to be the long-term norm. *Op. cit.*, especially pp. 369-372, 378-380, 385-386.

Because of the inadequacy of acceptable investments, the suggestion is made in the *Macmillan Report* that the central bank be allowed to modify reserve requirements of member banks. Committee on Finance and Industry, *Report*, Cmd. 3897 (1931), p. 159.

² *Ibid.*, pp. 153-154. The *Macmillan Report* does not seem to give the Bank of England adequate credit for the manner in which it has prevented large movements of gold from having their usual effects. Perhaps offsetting movements are carried too far; and it is even suggested in the *Report* that official witnesses did not make allowances for circumstances where losses of gold should be allowed to exercise their full effect. *Ibid.*, p. 144.

manner described by Keynes; but so far it has given no indication of having such intentions; and American experience teaches us that there are political dangers inherent in any attempt to carry open market operations further than the "offsetting" (against movements of gold and currency) stage and yet not nearly so far as Keynes would have central banks operate.

INTRODUCTION

It is rather ironical that in a country proud of its democratic theories, so undemocratic a method of dealing with banks has been evolved as the heterogeneous conglomeration of disciplinary practices referred to as moral suasion, discretion, or direct action. The fact is that, although democracies pride themselves on equality of treatment, they also fear the exercise of large powers; and it is in part because the public has objected to a courageous discount policy that the reserve banks have been forced to adopt autocratic methods. I have already pointed out that the discount policy has played no large part in reserve policy, that in recent years its potentialities have been almost universally minimized, and that high discount rates have been held to be incompatible with the requirement that trade be accommodated.¹ Hence it has been found necessary to attempt to discourage the use of reserve funds for undesirable purposes and stimulate their use for desirable purposes. Because open market operations played an unimportant rôle in 1919-20 and were used with rather disappointing results in the years 1927-29, the application of moral suasion became more urgent.

Moral suasion has been applied in numerous ways, encompassing important methods, other than rules of eligibility, discount rates, open market operations, and changes in reserve requirements, of enforcing the program of the reserve banks. Reserve banks may make suggestions and recommendations to officials of member banks, they may request cooperation, they may refuse to rediscount under certain conditions, and they may even attempt to dictate the lending policies of members. The problem is closely related to that of examinations, for reserve banks cannot treat with individual banks unless they are cognizant of their condition. Perhaps the most perplexing problem confronting the Federal Reserve System in its efforts to apply this weapon has been that of identifying the use of reserve bank funds. If reserve banks cannot identify the purpose

¹ Authorities now also seem disposed to doubt the effectiveness and expediency of moral suasion. W. F. Mitchell and F. Schneider, Jr., in *American Economic Review Supplement*, March, 1930, pp. 104, 111; L. D. Edie, "Putting the So-called New Era to the Test," *Proceedings of the Academy of Political Science*, 1930 (13), p. 521; H. L. Reed, *Federal Reserve Policy*, 1921-30, p. 120.

for which their funds have been used, they are unable to withhold accommodation on the grounds of improper use.

Closely related to the problem of moral suasion is that of borrowing by member banks. In the large financial centers, discretion has played a less prominent part and discount policy a more important part than elsewhere. Reserve officials on the eastern seaboard have frequently contended that they are unable to withhold accommodation merely because a member bank is expanding along undesirable lines, for member banks borrow to replenish their reserves, and to refuse accommodation would therefore be disastrous. It is therefore necessary to consider the problem of why member banks borrow. It may also be helpful to discuss the question of the *right* of member banks to rediscount, for if reserve banks may not refuse rediscounts of eligible paper, the possibility of relying on moral suasion is reduced except in so far as support is to be found in Section 4 of the Federal Reserve Act, which provides that no member bank is to obtain a disproportionate share of the resources of reserve banks. But the discussion of this problem is reserved for the later chapters on eligibility, with which subject it is more closely related.

CHAPTER X

METHODS

I. 1918-20

RESERVE authorities used moral suasion infrequently in the first years of the System's history; it became of practical significance only with the entry of the United States into the War.¹ The authorities then began to urge banks to accommodate essential industries and conserve their resources for the use of these industries.² At a Conference of Governors in July, 1918, "the view was generally expressed by the Governors that they could control any excessive rediscounts by any member bank by informing the applying bank that it had reached its limit; by requiring additional collateral; or with respect to 15 day borrowings, by availing themselves of the authority given them by the Board to raise the interest rate in case of renewals."³ In 1919, the Board referred in a rather mysterious memorandum to a policy of direct action now being applied and described as "supervisory restrictions of the use of credit particularly for speculative purposes through close contact and cooperation of leading member banks with the policies and purposes of their reserve banks."⁴ Governor Harding informed Senator Owen in

¹ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 41-54.

² Governor Young is hardly justified in saying that in 1929 member banks were told for the first time what they were to do with the proceeds of their rediscounts. Hearings: *Branch Banking* (71: 2), 1930, p. 652. *C.F.Chr.*, 1918 (107), p. 229. At a meeting of the New York Reserve Bank in July, 1918, it was proposed that the banks endeavor to secure a gradual reduction of loans now carried for non-productive or non-distributive purposes, or loans not clearly necessary for the prosecution of the War. In August, it was held by the Board that the conservation of credit was secured more effectively by cooperation than by an increase in rates. *Ibid.*, pp. 552, 750. The Chicago Bank commented on the discrimination against borrowers for non-essential purposes. *Mo. Rev. of Chicago R. B.*, March, 1918; *ibid.*, September, 1918; cf. *Mo. Rev. of Boston R. B.*, August, 1920.

Also see Strong's discussion of the operations of the Money Committee in 1918, which aimed both to provide the stock market with adequate funds and thus avert excessive rates, and took measures to prevent the diversion of large resources to speculative uses late in 1918. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 666-679.

³ *Mim.L.S.*, 1918, x-1057.

⁴ *Ibid.*, 1919 (11), x-1745, pp. 964-965.

November, 1919, that in spite of the recent increase in discount rates, "it now became necessary to call the attention of the large rediscounting banks to the situation."¹

Reserve officials continued to waver between the use of discretion and discount rates in 1920. On January 8, Governor Harding said that "our banking system is therefore passing through a transition period. During this transition period there should be an effective control of credits, gradual liquidation and such temporary expansion only as may be necessary to meet seasonal requirements or emergencies."² Federal Reserve Agents made various suggestions for the purpose of discouraging borrowing for non-essential purposes. Member banks were informed that the resources of the reserve banks were not unlimited.³ In the 1919 *Annual Report* it was held that "credit must be brought under effective control and its flow be once more regulated and governed with careful regard to the economic welfare of the country and the need of its producing industries."⁴ Although several reserve banks raised their rates in the spring of 1920, the Board requested that autumn needs be met as far as possible by the liquidation of speculative and inactive credits.⁵ Discount policy was not considered an adequate instrument. In reviewing the policies of the years 1919-21, the Joint Commission of Agricultural Inquiry concluded that moral suasion was preferable to progressive rates on the grounds that uniform treatment, when conditions were not uniform, was not justifiable.⁶

¹ *C.F.Chr.*, 1919 (109), p. 1933. The Board commented as follows: "Federal reserve banks cannot, in a time like the present, easily control this condition of affairs merely through changes of discount rates, however important the influence exercised by such changes. . . . Cooperation on the part of member banks is therefore necessary to the preservation of a satisfactory condition of strength throughout the banking system as a whole, and good results cannot be obtained through any single method, least of all through the use of those modes of restraint and correction which are in ordinary circumstances sufficient for the purpose." *F.R.B.*, 1919, p. 1010. Cf. *Mo. Rev. of Boston R. B.*, January, 1920; *ibid.*, February, 1920; *Mo. Rev. of Minneapolis R. B.*, May, 1920; *Mo. Rev. of N.Y.R.B.*, September, 1920; *Mo. Rev. of Cleveland R. B.*, June, 1920. Reserve banks commented freely on the need for deflation, and the curtailment of demands on reserve and member banks. In particular, legitimate requirements of business alone were to be satisfied.

² *F.R.B.*, 1920, p. 116.

³ *Ibid.*, pp. 116-118.

⁴ *Ibid.*, p. 223.

⁵ *Ibid.*, p. 904.

⁶ U. S. House Report No. 408, *Agricultural Inquiry* (67:1), 1922, II, 63. J. S. Williams objected to the increase of rates and strongly urged that member banks lending in a manner not approved by the Board or reserve banks should be refused accommodation. Hearings: *Agricultural Inquiry* (67:1), 1921, Pt. 13, especially pp. 48, 63, 69-70, 253.

In the course of several conferences, reserve officials revealed the manner in which they brought pressure to bear on member banks.¹ A Class A director of the Boston Bank said that its governor and Federal Reserve Agent worked actively and successfully in reducing its liabilities in 1920.² The Dallas Reserve Bank urged its members to cooperate in curtailing loans for illegitimate purposes; in three months the Bank had dispatched two letters to each member bank, sending the second by registered mail to the president.³ Although McIntosh of the San Francisco Bank recognized the difficulty of making a minute investigation of each bank, he nevertheless contended that the work must be done.⁴ An official of the Richmond Bank said that his institution did not urge member banks to sell their bonds, but apparently a refusal to accommodate made it necessary for them to sell.⁵ The agent of the Dallas Bank said that members were required to state their needs and the occasion for their discounts early in the season; and the bank refused applications in excess of needs.⁶ Governor Calkins of the San Francisco Bank announced that it was necessary to restrict advances to a fair share of the bank's resources and refuse to grant any further accommodation.⁷ The Richmond Bank used the threat of a progressive rate and, twice a month for five months, reminded the officials of each bank borrowing immoderately that their condition was unsatisfactory.⁸ Banks in the Cleveland District were informed in 1919 that the resources of the reserve banks were not unlimited; it was stated that the reserve banks corresponded with banks that were borrowing amounts in excess of their capital and surplus, in particular with fifteen that were borrowing more than 65 per cent of the total advances outstanding. Whenever member banks were advancing cash obtained from the reserve bank on the call market, they were requested to reduce their advances from reserve banks. The net result of such action in the Cleveland District was a reduction of advances from a maximum of 170 millions on March 1, 1920, to 80 millions on October 1, 1920.⁹ Reserve banks also discussed in their *Annual*

¹ Beckhart comments on the extreme measures introduced by the Chicago Reserve Bank as revealed by a former Deputy Comptroller of the Currency. B. H. Beckhart, *op. cit.*, pp. 412-414.

² U. S. Senate Document No. 310 (67: 4), 1923, p. 11.

³ *Ibid.*, p. 35.

⁴ *Ibid.*, p. 37.

⁵ *Proceedings*, October, 1920, II, 231-232.

⁶ *Ibid.*, I, 137-138.

⁸ *Ibid.*, p. 105.

⁷ *Ibid.*, p. 158.

⁹ *Ibid.*, pp. 43-49.

Reports during these years the measures that they had taken to assure cooperation and a reduction of liabilities.¹

In circulars dispatched to member banks, reserve banks assumed a vigorous tone. One western reserve bank announced that "it was not contemplated that the reserve banks should be looked upon as inexhaustible reservoirs of loanable funds, or that their assistance be obtained, even indirectly, for the financing of speculative enterprises or for investment."² Ramsey, agent of the Kansas City Bank, assumed an even more unyielding position. Banks must regain their liquid position, deflate credits, dispose of Liberty bonds, and discourage the use of credit for non-essential purposes. The reserve bank, he declared, would force member banks to hew to the line. "Meanwhile the Federal Reserve Bank will fully investigate all applications from member banks with a view to extending the widest and most beneficial service possible; but if the proceeds of rediscounts are used either directly or indirectly for purposes other than those intended by law such applications cannot be expected to receive favorable action."³ Governor McDougal of the Chicago Bank informed the member banks of his district in no uncertain terms that they might not repay at their pleasure.⁴

In an earlier chapter I explained how reserve officials learned from the experience of 1919-21 that it was not expedient to control the

¹ One bank pointed out the desirable course with such insistence as was required in each instance. Another bank undertook an educational campaign in order to press liquidation and effect a reduction of loans for investment and capital purposes, assure adequate accommodation to legitimate industry, and later, it "began effective measures to conserve credit and restrict advances to member banks to their indispensable requirements." One bank gave special advice and counsel to five banks in a dangerous condition, and an eastern bank requested cooperation of member banks, for it was still profitable to rediscount. *San Francisco R. B. Ann.*, 1918, p. 17; *Dallas R. B. Ann.*, 1920 p. 5; *ibid.*, 1921, pp. 5-6; *Richmond R. B. Ann.*, 1919, p. 15; *ibid.*, 1920, p. 16; *Philadelphia R. B. Ann.*, 1920, pp. 5-6.

² *C.F. Chr.*, 1920 (110), p. 316. (Letter of Dallas Bank, January 9.) In May, the same bank requested of its member banks that they curtail their loans and consequently their demands upon their reserve bank; they were informed that they were to restrict their loans to urgent seasonal needs and refuse loans made solely for the purpose of obtaining new business or for purposes that might be better served by the capital market. "It was not contemplated that any member bank would rediscount its eligible paper and use the proceeds thereof for the purpose of acquiring ineligible bills or paper of a speculative or non-essential character and thereby contribute to inflation, nor was it intended that member banks should look upon the reserve banks as unlimited reservoirs of loanable funds, upon which they might draw at will to augment their own resources, after those resources had been allowed to expand beyond safe limits." *Ibid.*, p. 2142. (Circular of May 7.)

³ *Ibid.*, 1920 (110), p. 513.

⁴ *Ibid.*, 1920 (111), p. 2382.

lending policies of member banks. Governor Harding made a rather vigorous statement concerning the lending policies of member banks at the May, 1920, Conference,¹ and it is apparent from the statements given above that the reserve banks were interested in the type of business carried on by members. (In another place I shall say something about the problem of essential and non-essential loans.) Later, they found it expedient to deny that they had requested member banks to refuse certain types of paper.² Moreover, in the face of violent criticism, reserve banks began to retrace their steps and announce that they were not insisting on the repayment of all or any part of the borrowing of member banks. One reserve bank announced late in 1921 that it would continue to support its member banks until their customers could dispose of their cotton and repay the reserve bank, but requested that no additional advances be made on the basis of the large advances from the reserve bank outstanding.³

2. 1920-21

The Joint Commission of Agricultural Inquiry pointed out that discretion had not been imposed in an equally decisive manner in all districts.⁴ "Sound banking requires the exercise of a sympathetic and understanding discretion in the making of loans, considering all of the circumstances existing in the case, and the infirmity of the progressive rate is in its substitution of a fixed, uniform, and arbitrary rule for the exercise of understanding and sympathetic dis-

¹ "The banks should lean less heavily upon the Federal reserve banks and rely more upon their own resources. Unnecessary and habitual borrowings should be discouraged and the liquidation of long standing and non-essential loans should proceed. . . . With knowledge of the limitations or penalties put upon his borrowings from the Federal reserve bank the banker may be depended upon to use a more discriminating judgment in granting credit accommodations to his customers and that judgment he must exercise if the present situation is to be remedied fundamentally." *Ibid.*, 1920 (110), p. 2138.

² *Addresses and Statements of W. P. G. Harding*, No. 16. (Letter to Governor McKelvie of September 29, 1921.)

³ *Mim.L.S.*, 1921 (15), X-3154, p. 788.

⁴ "As before indicated, while the policy of the Federal reserve banks reflected the necessity for control, restraint, and restriction, this policy could not be uniformly applied — first, because conditions in various districts were not uniform and the demand for customers' loans in some districts and in some localities was greater in proportion to banking resources than in others; second, because the condition of the member banks was not uniform." U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 54.

cretion in making loans.”¹ An inspection of a chart on page 79 of the *Report*, which gives the ratio of member-bank borrowings to the total basic discount line of all members for each reserve district and for the System from the middle of 1920 to the middle of 1921, is revealing. Moral suasion was particularly popular with the western and southern banks; and four of these also applied progressive rates. Nevertheless, of four banks applying progressive rates, the reduction of the ratio of borrowings to the basic line was marked only for the Atlanta and St. Louis Banks. The reduction for the former was from 200 to approximately 125 per cent; for the latter, from approximately 140 to 80 per cent. For the System, the reduction was from approximately 80 to 60 per cent for the same period. It is clear that the amount of reserve accommodation relative to banking resources was excessive in the West and South, that the reserve banks in the financial centers were able to reduce their accommodation appreciably in the year June, 1920–June, 1921, although in June, 1920, the total of member-bank indebtedness was already below the basic line. It does not necessarily follow that discretion as compared to discount rates was an ineffective method. The commission has clearly pointed out that in the same districts, liquidation was carried through at a favorable rate in the cities while in the rural sections, indebtedness was mounting.² Undoubtedly, the favorable results in the eastern reserve districts are to be explained in large part by the liquidation of advances to banking correspondents, and the unimportant part played by advances to the farmers. It is difficult to draw any conclusions from this episode. Liquidation proceeded most rapidly in the financial centers, where discretion was applied less vigorously than elsewhere and discount policy received more attention. The slow rate of liquidation elsewhere is to be associated with the type of advances made by the banks, as well as with the failure of progressive rates and moral suasion.

Officials closely associated with reserve policies of 1919–21 have since frankly declared that the reliance on discretion in the late summer and autumn of 1919 was unwise and resulted in the loss of several valuable months.³ Also, reserve banks were compelled to renounce any intention to determine or influence the lending policies of members. On the other hand, it is clear that several reserve

¹ U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 63.

² *Ibid.*, pp. 68–69.

³ *C.F.Chr.*, 1929 (128), p. 1834.

banks successfully reduced their liabilities through an effective use of this weapon; but we must consider in evaluating the results of this policy that these banks were able to rely on the threat of progressive rates or of a 7 per cent rate, expedients that other reserve banks had adopted. Moreover, there probably is some justification for the charge made by Governor Strong that the use of discretion by certain districts resulted in additional pressure on other districts, for paper unacceptable to banks in the former was therefore sent to the latter.¹ One may be reasonably certain that the policy was not successful in forcing liquidation within a reasonable period,² although there is no unanimity of opinion on the point; the reserve banks in the West and South later reaffirmed their faith in moral suasion, although they recognized the need of more thorough investigations of the investment policies of member banks.

3. 1922-26

As spokesmen for the System began to reaffirm their faith in discount policy, less attention was paid to discretion; but as the possibility of an effective or penalty rate failed of realization and numerous banks continued to remain heavily in debt to the reserve banks in the years 1921-24, increasing attention was given to discretion.³

¹ *Proceedings*, October, 1920, II, 257-260. Governor Strong also made the following comment: ". . . the application of rate control is universal, democratic and applies everywhere and requires no argument; it does not need to be expounded at bankers' meetings. It is a fact. It operates directly and evenly upon every borrower.

"Abandoning rate control as impossible, you then introduce the element of human error, because it is quite impossible for the management of this system, dealing with 10,000 member banks, to reach them all. They are the only ones that we reach directly and there are 20,000 banks we do not reach, because they are not members." *Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 766.

² Governor Wellborn of the Atlanta Bank announced in November, 1924, that his bank had carried the country banks since 1920, but the bank was now prepared to examine banks borrowing excessively and not in sound condition; and if their capital were impaired, the bank would compel them to repay unless they restored their stock. *Proceedings*, November, 1924, p. 229.

³ "Pending such development the real control of credit in the Federal Reserve System will lie not in the rate but in the accuracy and precision of judgment of the board of directors, executive committee and executive officers in each of the Federal reserve banks." J. H. Rich, "Expansion and Contraction from the Federal Reserve Standpoint," *Annals*, 1922 (99), p. 182.

The Federal Advisory Council recommended in 1922 that the most effective way to solve the problem of excessive borrowing by member banks was through the exercise of the personal influence of the governor on the member bank. *F.R.A.*, 1922, p. 411.

In 1923, the New York Reserve Bank stressed the importance of economy of the

It is clear that reserve banks continued to put pressure on member banks excessively in debt,¹ and the Board and reserve banks entered upon a campaign to reduce the number of excessive and continuous borrowers.² In 1925 the Board admitted the difficulty of identifying the purpose for which member banks borrow, but added that it was apparent that banks had been increasing their loans from reserve banks for the purpose of obtaining additional cash required to cover the increase of deposits accompanying an increase in advances on securities. Although aware of the difficulties of informing itself when and in what degree the extension of credit for speculative purposes was the real occasion of rediscounting, it nevertheless had proposed in 1923 that reserve banks solve the problem in an administrative manner.³ During these years, the theory was maintained that the resources of reserve banks were not to be used for the purpose of extending the business of members or to enable them to borrow at low rates and lend at high rates. This aspect of the subject has already been discussed. It will also be recalled that reserve authorities had never ridded themselves of the theory that member banks are entitled to a profit on their rediscounts.

use of bank credit by borrowers in the absence of the corrective influence of gold movements. *C.F.Chr.*, 1923 (116), p. 1486.

"Furthermore, the experience of several of the reserve banks is demonstrating that changes in discount rates need not be in all circumstances the main reliance or in any situation the exclusive reliance in making the credit policy of the reserve banks effective." *F.R.A.*, 1923, p. 3.

¹ Thus the Federal Reserve Bank of San Francisco wrote to a member bank in September, 1922, that the harvest season was on, that the bank, which was heavily indebted, should repay the reserve bank if it had expectations of the continuance of any support from the reserve bank. *Min.L.S.*, 1925 (23), x-4464, pp. 265-266. U. S. Circuit Court of Appeals, *Federal Reserve Bank of San Francisco vs. Idaho Grimm Alfalfa Seed Growers' Association*.

In 1926, the Dallas Bank, confronted with excessive demands, suggested a limit of borrowing from the reserve bank. Members were granted reasonable amounts of accommodation, but then proceeded to borrow twice as much from correspondents. In November, country banks were in debt to the Dallas Reserve Bank only to the extent of 20 per cent of their total borrowings. Dallas Reserve Bank, *Proceedings*, 1927, p. 26.

² *St. Louis R. B. Ann.*, 1926, p. 12.

³ *F.R.A.*, 1923, p. 35. In 1925, the Board seemed less convinced of the possibility of identifying the purpose for which a member bank borrows; rather, it was inclined to tackle the problem from the viewpoint of the relation of total borrowing from reserve banks and the total of security advances. *F.R.A.*, 1925, p. 16. The Board thus momentarily reaffirmed its faith in democratic action — discount policy — as against the undemocratic method of determining advances on the basis of the borrowing and lending policy of each member bank.

4. 1929

It is thus evident that the Federal Reserve System was not entirely unprepared for the recourse to moral suasion in 1929;¹ and in fact several reserve banks had apparently resorted to a rather vigorous use of direct methods in the second half of 1928. The Richmond Reserve Bank, for example, informed its members that they should reduce their borrowings and in some cases voluntarily curtail their advances.² Burgess inquired whether it was desirable that the expansion of bank credit, based upon additional use of reserve funds, should continue at the recent rapid pace.³

In February, 1929, the Board made its famous announcement that member banks using reserve facilities to make or maintain speculative loans were beyond their rights.⁴ At the hearings on Senate Resolution No. 71, members of the Board have since defended their action on the grounds that the reserve banks had offered no solution of the problem and that an increase in the discount rate would have been a mere gesture at this late date, equivalent to an announcement that reserve facilities were freely available to banks that were prepared to pay the price, regardless of the use to

¹ In July, 1927, the Governors Conference had recommended the use of moral suasion. *Mim.L.S.*, 1930, x-6737, p. 305. Early in 1928, Governor Young was not prepared to refuse accommodation to banks: they borrow after they have extended loans and the deposits have been reduced, and they will dispose of call loans in order to get out of debt. Hearings: *Brokers' Loans* (70:1), 1928, p. 67.

² *C.F.Chr.*, 1928 (127), p. 902.

³ *Ibid.*, 1928 (126), p. 3391.

⁴ *F.R.A.*, 1929, p. 3. The Board justified its efforts "to restrain the use, either directly or indirectly, of Federal reserve credit facilities in aid of the *growth* of speculative credit," on the grounds that the duty of the reserve banks was so to manage "the credit facilities of the Federal Reserve System as to accommodate commerce and business." The Board repudiated the position taken in 1925 for it now assumed that the problem could be solved by dealing with each member bank and that the uses to which reserve funds were put could be traced. Moreover, the Board now acted on the assumption that the reserve banks were to manage their facilities so as to accommodate commerce and business. The Board thus went beyond the position assumed in setting discount rates with a view to accommodating commerce, as is provided by law, or carrying on open market operations with the same objective in mind, as is provided by administrative regulation; for the Board now assumed that the *guides* to discount or open market operations were also the *goal* of reserve policy and argued that the weapons of control be supplanted by the use of discretion, a method of enforcing policies of doubtful legality. Also, the Board now definitely broke with a tradition that it had so faithfully attempted to build up in 1921-23, namely, that it has no control over the lending policies of reserve banks beyond definition of eligible paper, and that reserve banks do not control the lending policies of member banks.

which they put their resources.¹ Hamlin defended the policy of moral suasion as against a policy of higher rates proposed by the New York Bank, maintaining that by applying moral suasion, the Board was successful in achieving its goal.² He admits, however, that the policy was so successful that on the application of the New York Bank, the Board finally capitulated late in the summer of 1929 and approved an increase in rates.³ Moral suasion had been so successful that member banks were afraid to borrow, and a catastrophe was feared. The legal basis of the authority to refuse rediscounts of eligible paper on the grounds that member banks are in fact borrowing to extend their speculative business, is still a moot question.⁴ Dr. Miller's argument is that the law has not recognized such use as legitimate;⁵ but in truth, the law merely defines the type of paper that is eligible.

The Board took a more extreme position in March than it had in February. It now assumed that any undue expansion of credit along any particular line would result in an additional demand for reserve funds, and "that every class of loan or investment, therefore, rests in the final analysis upon reserve bank credit."⁶ This pronounce-

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 143-144.

² *Ibid.*, p. 168.

³ *Ibid.*, pp. 164-170. Hamlin seems uncertain of his ground here. He admits that the New York Bank was informed in June that it was not required to exert pressure on member banks that requested additional funds for commercial purposes. He continues that the policy announced in the February letter was not suspended, for the letter covered loans for speculative purposes only. Yet he gives the impression that an important change in policy was involved, and moreover, he had argued that one of the notable results of the policy of moral suasion had been a reduction of reserve credit outstanding. Thus the Board now (June, 1929) urged the New York Bank to lend freely although a reduction in reserve bank credit outstanding had been held to be one of the important achievements of policy since February. *Ibid.*, pp. 164-174. Hamlin, in a memorandum addressed to the Board, presents a stronger defense of the policies of the Board and also evidence of vacillation and indiscretions on the part of officials of the New York Bank. *Mim.L.S.*, 1930, x-6737, pp. 279-337.

⁴ Hamlin maintains that the Board had never proposed the refusal of rediscounts: member banks borrowing excessively or continuously and carrying a large volume of speculative loans were to be warned that they must protect their depositors and the public. *Ibid.*, pp. 316-317.

⁵ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 144. Glass is also unconvincing on this point. *Ibid.*, p. 256. A more acceptable position is one in which the emphasis is placed upon the need of cooperation on the part of member banks and upon the fact that good banking does not encompass the rediscount of eligible paper for the purpose of acquiring ineligible assets. National City Bank, *Economic Conditions*, August, 1928, p. 124.

⁶ *F.R.B.*, 1929, p. 176. The Board held that it could influence the rate of growth of the reserves of member banks and therefore had a responsibility, within the limit of its

ment was inconsistent with numerous statements issued in earlier years to the effect that the expansion of the credit of member banks was the result of gold imports, economies of reserves, and so forth. Actually, over the entire history of the reserve system, member-bank balances have been accumulated for the greater part out of the proceeds of transfers of reserves and the imports of gold. The Board's sudden interest in the balances of member banks is incomprehensible in the light of its failure to consider their fluctuations in earlier years — a point that I have stressed in discussions of open market operations.

The statement issued in February lacked vigor; it was merely an announcement that the authorities would view with disfavor the use of reserve facilities for the purpose of increasing speculative loans.¹ It has since been revealed that the New York Reserve Bank refused to support the program of the Board, for it held that it could not concern itself with the investment policies of member banks, and although it was prepared to discourage the excessive use of reserve facilities by banks out of line, it would not request a reduction of loans when all banks were borrowing excessively.² The reserve bank, however, apparently used enough pressure at the end of March to bring the financial machinery almost to a state of collapse.³ It has since been suggested that the explanation of the extreme

powers, for the *character* of growth in the total volume of member-bank credit. But the Board's position was woefully weak. It does not necessarily follow that an undue expansion in any field inevitably leads to an increased demand for reserve funds, nor does it follow even if the reserve banks can influence the rate of growth of reserves of member banks in any important sense — their influence had not been impressive along these lines — that they are *therefore* responsible for the character of growth of credit. It had displayed a surprising lack of ability to determine the volume of reserve credit, and more important, the balances of member banks.

¹ At the 1931 Hearings, Hamlin and Miller pointed out that the Federal Advisory Council had decided to go further than the Board in proposing that the increase of security rather than *speculative* security loans be stopped. Hamlin contends that the announcement of February was a plea for cooperation and was not intended as an attack on the stock market; but it is not clear that Hamlin is justified in pointing to the word *growth* in the announcement in support of his position that the statement was mild, for it was also announced that member banks ought not to rediscount to *maintain* security loans. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 167-168.

² *Ibid.*, pp. 170-171. Governor Harrison informed the committee that the New York Reserve Bank had no intention of controlling the type of business carried on by member banks. *Ibid.*, pp. 52-55. Burgess has also been critical of the Board's policy. He recently said that a bank of issue has to deal with the whole picture, not part of it. W. R. Burgess, "Discussion: Credit Regulation Through the Federal Reserve System," *Proceedings of the Academy of Political Science*, 1930 (13), p. 541.

³ *C.F.Chr.*, 1929 (128), pp. 1967-1969.

stringency was in part the withdrawal of funds from New York by a large city bank inclined to abide by the wishes of the reserve authorities.¹

It seems that several of the western reserve banks made vigorous efforts to carry out the policies initiated by the Board.² It was even said that the New York Bank was scrutinizing rediscounts more carefully.³ The Philadelphia Bank appealed to members not in debt to the reserve bank to consider the large increases in loans to customers carrying stocks for speculative purposes, and reminded other banks that if they found "their reserves for any reason deficient for anything longer than a very temporary period" and had "security loans to individuals or firms who" were "not regular customers entitled to accommodation, they should reduce the volume of such loans rather than rediscount with us or borrow from us."⁴ The Cleveland Bank wrote that "the extension of credits on the part of the member banks for purposes other than those specified in the Act when such credit extensions involve borrowing from the reserve banks for other than temporary periods, is at variance with both the spirit and intent of the law."⁵ It was pointed out by the Atlanta Bank that unless Federal reserve credit should be restricted to uses contemplated by the Act, the Federal reserve banks could not offer credit at a fair rate; and it was added that the great majority of its banks had refrained from lending on speculative securities when indebted to the Atlanta Bank.⁶ Governor Harding, although hostile to the Board's policy, explained what was expected.⁷ It was reported in May that the New York Bank was scrutinizing applica-

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 152.

² It was said that several western reserve banks refused accommodation to member banks lending on call in excess of a certain proportion of their capital. It was denied by the Minneapolis Bank, however, that member banks in debt to the reserve bank had call loans outstanding. *C.F.Chr.*, 1929 (128), p. 992.

³ *Ibid.*, pp. 825, 1311.

⁴ *Ibid.*, p. 1312. It was admitted that the use of reserve credit could not be controlled. *Philadelphia R. B. Ann.*, 1928, p. 18.

⁵ *C.F.Chr.*, 1929 (128), p. 1830.

⁶ *Ibid.*, p. 1831. Liquidation proceeded very rapidly in the Chicago District from March to May. *Chicago R. B. Ann.*, 1929, p. 6.

⁷ "As Governor Young has stated publicly that rates would be advanced only as a last resort, it is evident that the Board desires the Federal reserve banks to use all the arts of persuasion, and, if necessary, perhaps to exert pressure upon the member banks to induce them to pay off their obligations to the Federal reserve banks by calling such part of their . . . collateral loans as may be necessary to liquidate such indebtedness before making any further advances of that kind." *C.F.Chr.*, 1929 (128), p. 2560.

tions more carefully.¹ Undoubtedly, the Board's note of May to the New York Reserve Bank² explains the increased vigilance displayed by the latter. In April the Board had issued another statement through Governor Young, in which faith in moral suasion was expressed; but an increase in rates was promised if other measures failed.³ At one time, the Board apparently had under consideration a plan for prohibiting accommodation to any member bank with security loans outstanding of a speculative nature, except by permission of the Board.⁴

5. SUMMARY

Several valuable months were lost in 1919, when authorities applied discretion instead of higher discount rates. But several reserve banks, particularly those outside of financial centers, continued to rely on moral suasion in 1920-21. Their problem was somewhat different from the one confronting them in 1928-29. Although they were interested in the use to which members were putting reserve funds, speculation was not a very important question, and moral suasion involved merely an investigation of the needs of each bank and a reduction of accommodation to a minimum level. On the whole, the reserve banks in these sections were less rather than more successful in reducing the volume of reserve credit outstanding than were the reserve banks relying on discount rates; but the peculiar economic conditions in these sections of the country should be taken in account.

In the years 1922-26, the tendency was to rely less on discretion, although several reserve banks continued to express faith in the principles and continued to seek more complete information about

¹ *Ibid.*, p. 3121; the Boston Reserve Bank apparently also received a request from the Board in May to communicate with banks that had not yet adjusted their position. *Boston R. B. Ann.*, 1929, pp. 14-15.

² Hearings: *Operation of Banking Systems* (71:3), 1931, p. 171. In reply to the Senate questionnaire, reserve banks replied that measures were taken to prevent member banks from borrowing in order to lend on the market at a profit. The Atlanta Bank sent letters to banks borrowing from it and lending on the New York Stock Exchange: the results were satisfactory. Several reserve banks used other persuasive measures. The Cleveland and Philadelphia banks threatened and actually refused to rediscount where the position was not corrected. But the New York Bank was only interested in discouraging excessive or continuous borrowers. *Ibid.*, pp. 790-792.

³ *C.F.Chr.*, 1929 (128), p. 2395.

⁴ *Mim.L.S.*, 1929 (30), x-6275, pp. 305-306. Tentative draft of Regulation M, Series of 1929.

the condition of member banks. In practice, the System relied especially on principles that could be uniformly applied: continuous and excessive borrowers were to be discouraged. After some vacillation, the authorities in the financial centers and the Board were disposed to admit that they could not identify the purpose for which member banks borrowed. The Board in 1925, and Dr. Miller at the Stabilization Hearings, however, suggested that speculative uses might be inferred from concomitant increases in speculative loans of member banks and reserve credit outstanding. The application of this principle required movements in the discount rate rather than discretion, and increases in 1925 and 1928 may thus be explained.

The application of the principle of moral suasion in 1929 was on the whole a repudiation of the position taken by the Board and larger reserve banks in the years 1922-28. The authorities were once more to deal with individual banks, to dictate their lending policies, to investigate the uses to which member banks put reserve, and other, funds. It is not easy to determine whether the policy was successful. The Board's legal position was not impregnable; attraction of outside funds would have jeopardized the success of any policy. Temporarily, there was some reduction of reserve credit outstanding; but no appreciable reduction of balances of member banks was effected. On the other hand, the change of front on the part of the Board in the middle of 1929 is reminiscent of the sacrifices to political expediency in 1921. Moreover, less spectacular measures at this late stage were more discreet; the reserve system thus was saved the embarrassment of the responsibility for a crash.¹

¹ In Volume II, more is said concerning the effectiveness of the policy of moral suasion. Also, the question of control of speculation has been raised once more in the Glass Banking Bill of 1932-33.

CHAPTER XI

EXAMINATIONS, INFORMATION, AND THE LENDING POLICIES OF MEMBER BANKS

I. AUTHORITY OF RESERVE BANKS OVER EXAMINATIONS

IN so far as reserve banks go beyond the question of the eligibility of paper presented for rediscount and beyond the requirements of Section 4 that accommodation be extended with due regard to the rights of other banks, it is essential that they keep informed of the condition of member banks, of the lines of credit extended by them, and of the character of their management. It might even be held that the enforcement of Section 4 requires information in addition to the amount of accommodation received from the reserve banks in relation to the contributions of the member banks to the resources of the reserve banks; for if accommodation is extended to a bank in an overextended condition or one indulging in a risky business, other banks may be unfairly deprived of accommodation.

The Federal Reserve Act provides that reserve banks may examine member banks with a view to ascertaining the lines of credit extended by them. The insertion of this provision may conceivably be interpreted as evidence of the intention of Congress that reserve banks should not be satisfied merely with the evidence of eligibility of paper offered, but should also inquire into the use made of their resources. Responsible legislators have not, however, elsewhere expressed such a view. It is also provided in the Act that member banks are to be subject to regular examinations.¹ Reserve authorities have had to be satisfied with the examinations of national banks by the Comptroller of the Currency and generally with the examinations of state banks by the state authorities. The results of the

¹ State banks were also subject, as a condition of membership, to examinations by examiners approved by the reserve banks; in 1917, it was proposed that the reserve authorities be given *legal authority* to subject state banks to examinations conducted under the supervision of reserve banks or the Board. House Report No. 35 (H.R. 3673), *Amendments to Federal Reserve Act, 1917* (65: 1), p. 11.

system have not always been satisfactory.¹ Comptrollers of the Currency have frequently been niggardly in revealing any information to the reserve banks, and the latter have had to be satisfied at least part of the time with the identical report that was presented to the member bank examined. The New York Reserve Bank has obtained more information from state examiners.² The Reserve Board, however, has not made adequate use of its authority to examine member banks independently. Reserve banks frequently made examinations in order to investigate the lines of credit extended by state member banks; but apparently this provision has frequently been abused for these examinations have been thorough, and the cost of comprehensive examinations was thus illegally borne by the reserve banks.³ National banks are required to pay the expense of their examinations, but state banks have thus frequently been exempted from such charges. Reserve authorities have been hampered by the legal requirement that the cost of the general examination be assessed on the member bank, and they have finally been successful in inducing Congress to allow them at their discretion to assume the costs of examination of state banks.⁴ The object of this provision is the removal of a barrier to examinations when the reserve banks deem them necessary.

2. ATTEMPTS TO OBTAIN MORE INFORMATION, 1919-22

In a significant memorandum issued in November, 1918, the Board requested that when member banks were borrowing in excess of their needs, they should be requested to make a full disclosure of their lines of credit; that reserve banks should be satisfied that members were seeking accommodation only to meet local requirements and that the funds were not used to purchase paper on the

¹ The Comptroller has pointed out, however, that the supervisory and judicial functions of the Comptroller could not be undertaken by the reserve banks, the most important creditors of member banks. U. S. Congress, Joint Banking and Currency Committee, Hearings: *Inquiry on Membership in Federal Reserve System* (68th Congress), 1923, p. 143. (Hereafter abbreviated: Hearings: *Inquiry on Membership*.)

² Cf. *Mim.L.S.*, 1921 (14), x-3068, pp. 280-285; *ibid.*, 1922 (16), x-3318a, pp. 120-122.

³ *Ibid.*, 1923 (18), x-3688, pp. 259-260; *ibid.*, x-3728, p. 357.

⁴ *Ibid.*, 1930 (32), x-6490; Public-No. 434-71st Congress [S. 485]. Cf. House Report No. 1656 (May, 1930). Governors Young and Platt favored the bill. State authorities, they argued, were not always concerned with the enforcement of the Federal Reserve Act, and therefore, reserve banks ought to be allowed to make examinations at the cost of the reserve banks.

open market or lent to non-members.¹ Unsatisfactory conditions in 1920-21 led to increased agitation for an improvement in the system of examinations.² Dissatisfaction was expressed with the information revealed by the Comptroller of the Currency, and opinion in favor of the assumption of the responsibilities of the Comptroller by the reserve banks was widely expressed. Curtiss, agent of the Boston Bank, objected, however, because he feared that the spirit of cooperation between reserve banks and member banks would be impaired if reserve banks were to be responsible for the correction of unsatisfactory conditions revealed by the examinations.³ Another agent objected to the use of the threat of refusal to accommodate in order to compel a member bank to correct a situation.⁴ Apparently, the result of these discussions was the introduction of a bill inspired by the Board, which provided for an assumption of more responsibility by it for examinations.⁵ The examining force was to operate under the supervision of the Board, and the examiners were to cooperate with the reserve banks; it would thus be possible to save banks that might otherwise have been closed by the Comptroller. Since an examination would reveal the amount and character of assets eligible for rediscount, the reserve banks would be able to determine the extent to which they could safely and intelligently lend. Nothing came of this bill.

In the discussions at the Conferences of 1922, it was revealed that several western reserve banks were inquiring meticulously into the management, policies, and assets of member banks.⁶ On the other hand, Governor Morss of the Boston Bank expressed an attitude shared by reserve officials in other financial centers, that reserve banks should not pry into the business of member banks unless the latter were heavily indebted to them.⁷ The Board voiced the opinion in 1923 that "through examinations or otherwise, a reserve bank can do much by other means than the changes in discount rates to establish an effective supervision and control of the credit released by it to its member banks."⁸

¹ *Mim.L.S.*, 1918, X-1274. (November 19, 1918.)

² *Cleveland R. B. Ann.*, 1920, p. 8.

³ *Mim.L.S.*, 1921 (14), X-3068, p. 276.

⁴ *Ibid.*, pp. 284-285.

⁵ *Ibid.*, X-3109a, p. 583.

⁶ *Proceedings*, October, 1922, I, 65-67, 84-85; *ibid.*, II, 226-227.

⁷ *Ibid.*, I, 59-60, 79-81.

⁸ *F.R.A.*, 1923, pp. 3-4.

3. CONTINUED EFFORTS IN LATER YEARS

Apparently, the examinations of reserve banks continued to be perfunctory and were made only when necessary. A committee appointed by the Federal Reserve Board reported in December, 1923, that the reserve banks had failed to establish "a better supervision of banking in the United States." They recommended that examinations should be conducted so as to obtain information concerning the credit policies of member banks.¹ The Board was perhaps impressed by the report, for it concurred in a resolution of Federal Reserve Agents, prepared early in 1924, to the effect that credit investigation should be regularly conducted so that reserve banks might be prepared to extend credit intelligently.² In spite of the fact that the Board announced early in 1926 that reserve banks in districts *outside of the financial centers* considered "not only the legal eligibility and soundness from the credit point of view of the paper presented for rediscount or as collateral for an advance, but also the general position of the borrowing bank, the volume and character of its outstanding loans and investments, and to some extent the character of its management"³ — in spite of that fact, it is evident that the Board and the reserve banks were not taking their responsibility seriously. Counsel of the Board pointed out in 1927 that it had the authority to examine each member bank (Section 11), and was authorized to supervise the examinations of all state member banks (Section 9), and that one of the purposes of the Act was to provide a more effective supervision of banking. The responsibility, counsel advised, could not be discharged by permitting reserve banks to make mere credit investigations limited in scope so that financial conditions, character of management, and violations of the Act were not revealed.⁴ Yet at the Congressional hearings early in 1928, Sprague objected to the rejection of applications for rediscount when the investment policies of member banks were disapproved: the acceptance of this policy, he declared, would require an investigation of all the transactions of each member bank, whereas now it was merely required that member banks be known

¹ *Mim.L.S.*, 1927 (26), x-4821, pp. 157-162.

² *Ibid.*, 1924 (20), x-3954, p. 76.

³ *F.R.A.*, 1925, p. 18.

⁴ *Mim.L.S.*, 1927 (25), x-4822, pp. 166-168. In September, 1927, a new Assistant Federal Reserve Agent was appointed for the New York Bank for the purpose of strengthening the examination force. *C.F.Chr.*, 1927 (125), p. 1407.

to be in a safe condition.¹ Governor Young conceded that if examinations revealed an unsafe condition, eligible paper might be refused.² This was apparently the extent to which investigations into the condition of member banks were used in the determination of lending policies. In 1931, important reserve officials still refused to admit that they would use the examination system to pry into the affairs of member banks or investigate the use made of reserve funds.³

After Comptroller Williams retired, less friction arose between the reserve banks and the Comptroller's office. But increasing dissatisfaction was expressed with the results of state examinations.⁴ Beginning in 1927, the Board provided for better supervision of examinations by Federal Reserve Agents whose interpretations of the law were not always similar.⁵ Moreover, provision was made for more frequent examinations by an examining force under the supervision of the Board.⁶ It was held by counsel that the Board was responsible for the enforcement of many provisions in the Federal Reserve Act, and hence examinations of state banks under the supervision of the Board were necessary.⁷ In several instances, reserve banks were taken to task in the courts for having failed to examine member banks and were held responsible for losses suffered by depositors of members. The defense of the reserve banks was that their responsibilities were limited to (1) the assurance that the reserve banks obtain the commercial paper of the proper kind for collateral against notes, and (2) the protection of reserve deposits.⁸

The Comptroller of the Currency and the state authorities have been responsible for the examination of member banks. The former has not always revealed to reserve banks necessary information,

¹ Hearings: *Brokers' Loans* (70: 1), 1928, p. 58.

² *Ibid.*, p. 68.

³ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 48-49, 114-117. Several reserve banks, however, find examinations helpful in formulating lending policies. *Ibid.*, pp. 722-723. Cf. *ibid.*, p. 356 (Owen Young would confer the authority to examine all banks on the reserve banks and would allow them to refuse rediscounts if banking practices are found to be unsound).

⁴ In 1929, the Board's counsel drafted a bill providing that the Comptroller of the Currency examine *all* banks, that the information obtained be put at the disposal of reserve banks and the Board, and that special examinations might be made by reserve banks with the permission of the Board. *Mim.L.S.*, 1929 (31), p. 280.

⁵ *Ibid.*, 1928 (29), x-6143a, pp. 280, 284-285.

⁶ *Ibid.*, x-6173, pp. 332-334. Federal Reserve Agents were to report to the chief examiner of the Board.

⁷ *Ibid.*, x-6143a, pp. 275, 281-282.

⁸ *Ibid.*, pp. 166, 174-176.

and the examinations of the latter have not always been thorough. In the last few years, the Board has made renewed efforts to coordinate and supervise additional examinations of state banks undertaken by reserve banks as well as to make the most effective use of other examinations. It still holds, at least for the reserve banks in the financial centers, that they refrain from prying into the policies and investments of member banks which request accommodation, and they lend if they are assured that the banks are in a safe condition. In general they have adhered to the theory that they lack the authority to refuse accommodation and would be ill-advised to withhold accommodation on the grounds that the lending policies of member banks are not approved; a comprehensive examination is therefore unnecessary to determine the lending policies of reserve banks. It has frequently been contended that the justification for uniform rates within a district is that all paper rediscounted is endorsed by a member bank; but it did not necessarily follow that a reserve bank was therefore to make a minute examination of the business of the member bank: a report from the Comptroller or the state banking department that the bank was in a safe condition would be adequate. It is doubtful whether Congress had more than that in mind when it provided that reserve banks might investigate the lines of credit extended by member banks; that provision was an additional safeguard for the protection of reserves of the member banks and the collateral against notes. In 1931 a Senate committee, after a careful study, concluded that the examinations of reserve banks were formal, and reserve banks were merely concerned with the safety of funds advanced to members and their soundness in so far as the exercise of the function of collecting checks required assurance concerning their conditions.¹ By way of conclusion, then, it may be noted that reserve authorities have not taken adequate notice of the need for a better supervision of banking expressed in the preamble of the Federal Reserve Act.²

¹ Hearings: *Operation of Banking Systems* (71:3), 1931, p. 1069. It may also be noted that in July, 1930, the Board announced that the reserve authorities might make one additional examination each year when they were not satisfied with the examination of state authorities. They also have required a statement from each member bank to the effect that the Federal Reserve Act and regulations of the Board are complied with and that the investments and loan policies as well as the uses of Federal reserve credit are consistent with the terms of the Federal Reserve Act. *Mim.L.S.*, 1930, x-6665, pp. 87-88.

² Willis and Steiner exaggerate the significance of examinations by the reserve banks. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 106-107.

CHAPTER XII

THE USE OF FEDERAL RESERVE FUNDS

I. INTRODUCTION

THE application of moral suasion requires that reserve banks identify the purpose for which member banks use reserve funds. Reserve authorities have assumed that because paper representing speculative transactions is not eligible for rediscount, reserve banks can discriminate against banks offering eligible paper but using the proceeds in speculative enterprises. An investigation of the lending policies of individual member banks is necessary if an attempt is to be made to discover the use of reserve funds. Congress had not anticipated this problem in 1913, although it is clear that leaders were anxious to discourage the use of bank funds for speculation; but they had not anticipated that rules of eligibility would not be an adequate safeguard. The proponents of a policy of moral suasion have also assumed that the reserve banks could make money expensive for illegitimate consumers of credit and maintain reasonable rates for others.

2. 1914-18 — DIFFICULTIES UNDERESTIMATED

At the outset, the Organization Committee of the reserve system pointed out that member banks could not inform themselves of the use to which customers put funds obtained from them, and, therefore, the committee concluded that a minute investigation of the use of proceeds was not practicable, and member banks might be satisfied with the information that the borrower was in a liquid position.¹ It is somewhat ironical that Willis, who apparently was largely responsible for the work of the Organization Committee, and Senator Glass, his close associate, later were emphatic in their insistence on the position that *reserve* banks knew perfectly well to what use *member* banks were putting the cash obtained from them.²

¹ Preliminary Committee on Organization, *Report*, p. 77; *F.R.A.*, 1914, p. 153.

² *C.F.Chr.*, 1929 (128), p. 503; *Hearings: Operation of Banking Systems* (71:3), 1931, p. 273.

The Board apparently was not aware of the difficulties involved, for in a ruling of 1915 it announced that reserve banks might rediscount paper of member banks acquired from non-members in good faith, but were not to rediscount when members gave accommodation to non-members with a view to rediscounting later.¹ Early in 1918, Governor Strong, however, pointed out that corporations may borrow for capital purposes from member banks and the latter may then borrow from the reserve banks. He was doubtful whether the reserve banks could control the use to which credit was put unless they made inquiries.² (Later, he was to take the position that inquiries were inexpedient, and were not likely to yield the necessary information.) The Board began to be aware of the problem, for late in 1918 it complained that member banks were using the proceeds of rediscounts on advances to purchase paper in the open market or to lend to non-member banks, and requested reserve banks to satisfy themselves by proper inquiry or investigation that the accommodation sought was used for legitimate local requirements.³ We may conclude that in the war period the Board failed to realize the difficulties involved in the attempt to control the use of reserve facilities. It may be said in its defense that since the reserve authorities were largely concerned during the early years in inducing member banks to use their facilities, they were not likely to concern themselves with the question of the use to which their resources were put.

3. 1919-20 — REALIZATION OF THE DIFFICULTIES INVOLVED

In 1919-20, the authorities made more vigorous efforts to prevent the abuse of the facilities of the reserve banks. At first they expressed a spirit of optimism concerning their capacity to control the use of their facilities without resorting to an increase in rates. Thus in June, 1919, the Board inquired of Federal Reserve Agents the extent to which member banks were borrowing on Government

¹ *F.R.B.*, 1915, p. 213. In 1918, the Board decided that regulations on this point were not necessary and reserve banks were to use proper discretion. *Mim.L.S.*, 1918, x-1057. In 1920, Governor Seay of the Richmond Bank objected to the Board's attitude toward advances to non-member banks and admitted that his bank had not adhered to the ruling of the Board. *Proceedings*, October, 1920, pp. 13-15.

² U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, pp. 149-150.

³ *Mim.L.S.*, 1918, x-1274. (November 19.)

paper for purposes other than carrying Government securities or financing industry and trade.¹ The Board expressed satisfaction at the results of this investigation, for, it was pointed out, some banks now hesitated to borrow for speculative purposes; and the Board reminded member banks that the funds of the reserve system were in no sense intended for the support of speculation.²

But officials were apparently not satisfied with the results of moral suasion, and they began to express doubt concerning the effectiveness of such methods. "There is no ready method in reserve banking by which the use of reserve facilities can be withheld from use in undesirable lines of activity without, also, being withheld from use in desirable lines."³ A conference of Federal Reserve Agents expressed a fear lest the production of goods should be unduly curtailed, but added that immediate use of credit for speculative purposes was undesirable, and recommended an increase in rates.⁴ Yet the results of the increase in rates introduced early in November, 1919, were not entirely satisfactory, and the Board and reserve banks once more expressed a faith in the use of discretion.

"The Federal reserve banks will thoroughly investigate all applications from member banks. If the proceeds of such rediscounts are to be used, either directly or indirectly, for purposes other than those intended by law, such applications will not receive favorable action.

"The Federal reserve bank is compelled to consider not alone whether the purposes behind the applications for rediscount are in conformity with the law and with its publicly announced policy."⁵ It was not revealed by the Board nor by the reserve banks on what ground the request that the purposes behind the application for rediscount should be in conformity with the law was justified. The Act merely defines eligible paper and provides for equitable treatment between banks. In April, 1920, the Board once more commented on the need of bringing the speculative use of the credit

¹ *Ibid.*, 1919 (10), x-1573, p. 387.

² *F.R.B.*, 1919, pp. 617-618; cf. *Mim.L.S.*, 1919 (11), x-1745, pp. 964-965.

³ *F.R.B.*, 1919, p. 911 (October). In the December *Bulletin* the Board said that experience has proved that the prohibition of direct speculative loans does not prevent the indirect use of funds for speculation; warnings had been issued since October, 1915. *Ibid.*, p. 1107.

⁴ *Mim.L.S.*, 1919 (11), x-1719a, pp. 869-870; *F.R.B.*, 1919, p. 1017.

⁵ *Mim.L.S.*, 1919 (11), x-1758, p. 994 (December 17, 1919); cf. *C.F.Chr.*, 1920 (110), p. 316 (Letter of Dallas Bank, January 9); *ibid.*, p. 513 (Letter of Agent of Kansas City Bank, January 26).

facilities of the Federal Reserve System under control, although it was satisfied that commerce and industry were receiving a larger proportion of the resources of both reserve and member banks.¹ But the weapon now used was again the discount rate rather than discretion.² Later, Governor Harding admitted that the attempts to prevent the use of the proceeds of discounts of eligible paper for ineligible purposes had been unsuccessful.³ Governor Strong was peculiarly aware of the intricacies of the problem.⁴

4. ADMISSION OF INABILITY TO IDENTIFY USE OF RESERVE FUNDS

The theory of the control of the use of reserve funds had an interesting history in the years 1923-26. On the whole, authorities seemed to have profited from the experience of earlier years and to have put little faith in their ability to trace the use to which the cash of reserve banks was put.⁵ Governor Strong consistently maintained this position. He held that the dollars advanced could not be earmarked, that the reserve banks could not control the use of their cash by member banks, and that if Congress had intended to give the reserve banks control over the application of the proceeds of their advances, Congress would have been specific as it had been in

¹ *F.R.B.*, 1920, p. 342.

² The Dallas Bank, however, issued a circular in May in which it made known its unwillingness to extend credit on eligible paper for ineligible purposes. *C.F.Chr.*, 1920 (110), p. 2142.

³ U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish the Office of Comptroller of the Currency* (67: 1), 1921, pp. 22-24; U. S. House Banking and Currency Committee, Hearings: *Amending the War Finance Corporation Act* (67: 1), 1921, p. 6. Cf. *C.F.Chr.*, 1920 (110), p. 1928. (Leffingwell comments on abuses.)

⁴ He contended that member banks borrowed at the lowest possible rate — the criticism of this point has been made in an earlier chapter — and therefore the amount of accommodation advanced to agriculture is not to be ascertained from the holdings of agricultural paper; that there is no relation between the loan made by the reserve bank and the loan made by the customer. “. . . to exercise a particular and exact control as to what is done with the credit that we extend to member banks, would involve the examination of each transaction by every member bank every day in the year . . . which is a physical impossibility.” Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 693-698, 702.

⁵ Governor McDougal of Chicago, however, said that his bank considers the use to which member banks put their credit, the character of the paper they offer, and the present condition of the borrowing bank. *Proceedings*, October, 1922, 1, 89. In 1926, the deputy governor of the San Francisco Bank said that his bank had so intimate a knowledge of the business of its member banks that it could detect whether a member bank, borrowing on its own paper, was in fact using its credit to grant accommodation to non-depositors. *Mim.L.S.*, 1926 (24), X-4544b, p. 180.

defining eligible paper.¹ Governor Strong's colleagues at the New York Bank were equally insistent that the problem was quantitative and that the task of the reserve banks was to adjust the total supplies of credit to the total demand.²

In 1925, Dr. Miller of the Board stated — in my opinion, erroneously — that “the use of Federal reserve credit for speculative or investment purposes is precluded by specific provisions of the Federal Reserve Act.”³ At the Congressional hearings in 1926 and 1928, he renounced this position,⁴ now merely maintaining that the use of reserve facilities for speculative purposes was to be inferred from the concomitant increase of reserve credit and speculative loans. The Board had assumed a similar position in its 1925 *Report* (published early in 1926) in which it justified an increase in rates on the grounds that the increase in speculative loans and excessive demands for reserve credit were symptomatic of increased accommodation for speculative purposes.⁵ It is important to observe that this position was radically different from that taken by the supporters of a policy of moral suasion later, for in 1925 the authorities, by increasing rates, dealt with member banks as a unit, not individually. Moreover, the policy of 1925 was different from that recommended in 1923; in the latter year, the Board had pointed out the difficulty of identifying or earmarking reserve funds, but it had expressed the hope that the reserve banks might solve the problem through administrative action. In other words, some faith was still placed in moral suasion.⁶ In 1925 the Federal Advisory Council made a similar recommendation;⁷ but the Board now assumed a position similar to that taken by the New York Bank in 1928–29, pointing out that it was not possible to discover to what use member banks put the credit obtained from reserve banks, and that “member banks generally borrow to make up deficiencies in their reserve balances incurred as the net result of all their operations, and it is seldom possible to trace the connection between borrowings of a member bank at the reserve bank and the specific transactions that gave rise to the necessity for borrowing.”⁸

¹ B. Strong, *op. cit.*, pp. 127, 184; Hearings: *Stabilization* (69: 2), 1926, I, 340–341.

² W. R. Burgess, *op. cit.*, pp. 179–181; *C.F.Chr.*, 1928 (127), p. 3340; Hearings: *Operation of Banking Systems* (71: 3), 1931, especially pp. 55, 69–70.

³ *C.F.Chr.*, 1925 (121), p. 2594.

⁴ Hearings: *Stabilization* (69: 2), 1926, II, 847–848; *ibid.* (70: 1), 1928, pp. 308–309.

⁵ *F.R.A.*, 1925, p. 16.

⁶ *Ibid.*, 1923, p. 35.

⁷ *Ibid.*, 1925, p. 288.

⁸ *Ibid.*, p. 16.

5. THE POSITION IN 1928-29

In the crucial years 1928-29, the Board did not make a complete reversal of the position it had assumed in 1925. Its attitude was as follows: the Federal Reserve Act does not contemplate the use of reserve credit for speculative purposes; the use of reserve credit for speculative purposes justifies the interference of the reserve authorities, although the System is not concerned with speculation as such.¹ Any unusual demand for credit in any field will ultimately result in an increased demand for reserve credit, and, therefore, reserve authorities are responsible for the *character* of growth of member-bank credit.² Moreover, the reserve banks can influence the volume of member banks' reserves through a proper credit policy, and every class of loan or investment, therefore, rests in the final analysis upon reserve bank credit; and, therefore, the reserve banks are responsible for all member-bank credit outstanding.³ Although it was admitted by Governor Young that reserve funds could not be earmarked,⁴ the Board and several reserve banks relied on moral suasion. The Board merely stated that the objective was to restrain the use of reserve facilities for speculative purposes, and that they would use the most effective measures available.⁵ Apparently relying on the provision in Section 4, for legal support, the Board contended that a member bank was not "within its reasonable claims for rediscount facilities at its Federal reserve bank when it" borrowed "either for the purpose of making speculative loans or for the purpose of maintaining speculative loans."⁶ This was an announcement that moral suasion would be used; that is, that the use of reserve facilities for speculative purposes would be frowned upon if member banks were indebted to the reserve banks and had speculative loans outstanding.⁷ The Board apparently had ad-

¹ *Mim.L.S.*, 1929 (30), X-6260, p. 208.

² *F.R.A.*, 1928, pp. 7-8.

³ *F.R.B.*, 1929, p. 176.

⁴ *C.F.Chr.*, 1928 (127), pp. 1871-1872; *ibid.*, 1929 (128), p. 1833. "There are others who believe that the System is able to earmark its credit in such a manner that it can, by some wonderful formula, brand the credit it releases and confine its use to approved purposes, but anyone with practical banking experience knows this is impossible, except for what the System may be able to accomplish through the cooperation of the banking and business interests." (Young's Cincinnati speech.)

⁵ *F.R.A.*, 1929, p. 3.

⁶ *Ibid.*, p. 3.

⁷ This was brought out more clearly in the confidential suggestions made to the reserve banks in the letter of February 2. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 143; cf. p. 144.

mitted its inability to identify the purpose for which member banks borrowed, only to assume a more extreme position; namely, that the reserve banks were responsible for all the credit outstanding, but that it was possible only to control member banks in debt. It was assumed that banks indebted to reserve banks and lending for speculative purposes were using reserve funds for speculative purposes.¹ Reserve banks therefore attempted — frequently with success — to compel member banks to liquidate speculative loans so long as they were in debt to the reserve bank.² The New York Reserve Bank, it is true, refused to adhere to the program mapped out by the Board, although it was prepared to bring pressure to bear on country banks that were lending on the call money market: the assumption being that the brokers were normally the customers of the large New York banks,³ and that control was difficult because member banks in New York City were generally in debt but a few days.

The Board's legal and economic position was extremely weak. It is provided in Section 4 of the Federal Reserve Act that each reserve bank is to extend such discounts and advances "as may be safely and *reasonably* made with due regard for the claims and demands of other member banks." The word "reasonably" is used in Section 4 to protect one bank against another, but the provision (quoted above) is not properly invoked when all banks are lending to speculators.⁴ Undoubtedly the creators of the System were opposed to the speculative use of reserve funds; but they had not made adequate provision for protecting their position. In an opinion submitted to the Board, counsel ruled that the Board could legally

¹ "There is no way of earmarking for special purposes the credit extended by the Federal reserve banks; and even if that were possible, it would still be true, under existing law, that the entire credit structure ultimately rests upon Federal reserve credit as a base; the reserve system has a correspondingly broad responsibility." *F.R.A.*, 1928, p. 8.

² Dallas Reserve Bank, *Proceedings*, 1929, p. 11; *C.F.Chr.*, 1929 (128), pp. 825, 992.

³ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 67-72, 170-171.

⁴ Hence it seems to me that the New York Reserve Bank's position was stronger than the Board's when it limited its corrective action to bringing pressure to bear on banks out of line. *Ibid.*, pp. 170-171.

It is perhaps significant that in the Banking Act of 1932 (pending), Section 4 is modified so that in addition to the equitable treatment of one bank against another, it is provided that reserve banks are to extend credit with a view to the maintenance of sound credit conditions and the accommodation of commerce, industry, and agriculture. Also, reserve banks are required to keep informed of the lending policies of member banks and to give consideration to this information in formulating its rediscount policy. *S. 4412* (72: 1), Section 3 (April 18, 1932).

prevent member banks from borrowing if they had brokers' loans outstanding.¹ The basis of this opinion was the expression hostile to speculation incorporated in the Report of the House Committee on Banking and Currency, on the Federal Reserve Act (1913) and the provision in Section 13 that rediscounts of bills receivable were subject to the restrictions, limitations, and regulations of the Board.² It may be observed here that this important provision was introduced by the Senate, which was not particularly concerned with the speculative use of reserve funds. Even if we admit that the foregoing provision confers the necessary authority on the Board, one may inquire why this particular support of the Board's position has not been made public. Is it because the Board was mindful of the unfortunate experience of the years 1920-22, when its members were subjected to endless criticism and pressure to modify the conservative lending policies of the reserve banks, and when they contended with equal vehemence that they had absolutely no control over the lending policies of either reserve banks or member banks?

There are many other criticisms that might be made of the Board's position. It cannot be maintained that the reserve banks have been able to influence the balances of member banks to any important degree; what is more important, they have not taken any great interest in them; and even if they possessed the power to control balances, it would not follow that the Board was responsible for either the magnitude of member-bank balances or the use to which they were put. In the years 1920-22, reserve officials vigorously and repeatedly denied that they had any responsibility for the lending policies of member banks, and in the years preceding the debacle of 1929, it was pointed out several times that large fluctuations in the balances of member banks could not be attributed to reserve policy.

6. CHEAP MONEY FOR TRADE AND DEAR MONEY FOR SPECULATION

Within the Federal Reserve System, there was general agreement that an excessive amount of member-bank credit and, possibly, reserve credit had been diverted to speculative channels. Disagree-

¹ *Mim.L.S.*, 1929 (30), x-6260, pp. 208-228 (Wyatt, counsel to the Board, on its power to enforce the principles laid down in the Board's letter of February 2.)

² *Ibid.*, pp. 209-210, 220. He contended that the power to restrict, regulate, etc., was inserted to cover such contingencies as the failure to eliminate speculative use of reserve credit because of the difficulty of earmarking the borrowed dollars. I have been unable to find any evidence to support that contention.

ment arose concerning the methods to be used to cure the evil. The Board and many of the southern and western reserve banks, as well as the politicians, supported a policy of discrimination against speculative consumers of reserve funds in order that legitimate industry might not be injured.¹ In 1919, the Board had stated frankly that the excessive use of banking resources for speculative purposes was reflected in higher rates for legitimate consumers.² In later years, others have frequently observed that credit is not divided into water-tight compartments, that high rates for one use will be followed by high rates for others, and that credit cannot be released for one purpose and withheld for another.³ The Board in 1925 foreshadowed the position that was to be taken later; in that year it objected to an increase in New York rates on the grounds of increased speculation, holding it unjust to penalize business.⁴ In the latter part of 1927 and the early part of 1928, the attitude of officials was that the diversion of funds to speculative uses had not been costly to legitimate consumers of bank credit; they thus justified the equanimity with which they countenanced the increased use of banking resources for speculation.⁵ The official attitude during the months of 1928 in which the reserve banks introduced a policy of restraint by raising rates and selling securities was that commerce and industry had not suffered as a result of the current monetary developments — an attitude to be ascribed in part to an unwillingness to be held responsible for higher money rates. But when rates for legitimate borrowers became disconcertingly high, the correct policy was assumed to be moral suasion, a policy which required the determination of the use to which reserve funds were put, and which

¹ Governor Harding made the analogy of the boy who asked Santa Claus for a knife that would cut wood but not his finger, in commenting on the Board's attempt to raise rates for speculative consumers and keep them down for others. *C.F.Chr.*, 1929 (128), p. 2560.

² *Ibid.*, 1919 (109), p. 102.

³ In 1925, Roberts of the National City Bank said that credit cannot be put into water-tight compartments, but it will go where the return is largest. G. E. Roberts, "Federal Reserve Control of the Money Market," *American Bankers' Association Journal*, December, 1925, p. 405. In 1928, he said that the reserve banks could not release credit for one purpose without releasing it for others. *C.F.Chr.*, 1928 (127), p. 2903. McFadden, chairman of the Banking and Currency Committee, said that the reserve banks could not penalize the stock market without penalizing industry. L. T. McFadden, "Call Loans and Federal Reserve Policies," *American Bankers' Association Journal*, October, 1928, p. 292.

⁴ *F.R.A.*, 1925, p. 6. The fear of penalizing legitimate borrowers finally led the reserve authorities to adopt a policy of moral suasion in 1929.

⁵ Hearings: *Brokers' Loans* (70: 1), 1928, p. 69.

would penalize speculative consumers of credit without penalizing industry.¹ In such fashion did the authorities justify their unwillingness to use the discount weapon in 1929 and their attempts to identify the use made of reserve credit.²

7. CONCLUSION

Reserve authorities realized rather tardily that eligibility provisions, either legal or administrative, were not adequate for the purpose of preventing the use of reserve funds for ineligible purposes; and after several unsuccessful attempts to control the use of reserve funds through the identification of their use by member banks, they admitted in 1921 that their efforts had been in vain. The Board remained skeptical of the possibility of earmarking reserve dollars, but retained some faith in administrative tactics by which it was hoped that reserve banks might prevent the use of reserve facilities for illegitimate purposes. By 1925, the Board had apparently renounced its faith in the capacity of reserve banks to deal thus with individual banks, although it was not yet prepared to penalize industry by approving an increase in the New York rate merely because speculative uses of member-bank balances had been excessive; but it now inferred that excessive increases in reserve credit outstanding and advances for speculative purposes by member banks were indicative of undesirable uses of reserve credit by *all* member banks, and dealt with that situation by increasing rates outside of New York. In 1927 and the early months of 1928, the reserve authorities refrained from interfering on the grounds that legitimate consumers of credit had not been injured by the diversion of credit to speculative uses. The methods of control introduced later in 1928 were in general consistent with the principles enunciated in 1925-26: the reserve banks dealt with the situation by increasing the cost of reserve credit to all borrowers. But in 1929, and even the latter part of 1928, the accepted policy was to bring pressure to bear on individual member banks lending freely

¹ *C.F.Chr.*, 1929 (128), pp. 1832-1833.

² *Ibid.*, pp. 1830-1831; *F.R.A.*, 1929, p. 2. "During this period the Federal Reserve System attempted in cooperation with the member banks to restrain the growth of speculative credit and at the same time to assure rates of interest for credit used in production and distribution that would not be punitive." *Mim.L.S.*, 1930 (32), x-6544, p. 368. (Governor Young before the American Bankers' Association, March, 1930.) *Cf. C.F.Chr.*, 1929 (128), p. 4255. (Hamlin's address in June at Poland Springs.)

on the call market and indebted to reserve banks. The occasion for the change in policy was the increased cost of credit to commercial borrowers, with the fear of further increase in that cost. In order to support their new position, the authorities devised a theory by which they were responsible for the volume and character of member-bank credit outstanding; and although they had repudiated the idea that they could trace the use of reserve funds, they now assumed a position less acceptable than that consistently repudiated since 1921; namely, that since they could not identify the use, they would infer that member banks in debt and lending on the market, were using reserve funds for unapproved purposes. The most important legal support for their position, the provision that the Board could restrict, limit, and regulate the discount of bills receivable, was for obvious reasons not made public.¹

¹ Since the foregoing discussion was written, the replies to the questionnaire of the Glass Committee, submitted to the reserve banks, have been published: several reserve banks inquire into the use of funds advanced by them; but on closer examination, this generally seems to mean that the statements of the borrower accompanying the paper are examined. The New York Bank follows closely the borrowing record of the banks and investigates if something unusual is suggested. With few exceptions, the reserve banks do not determine their lending policies on the basis of the portfolios of the member banks unless an unsound condition is indicated. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 722-724.

The question of the effect of speculative demands for credit on market rates, which is related to the problems under discussion here, is discussed in a note at the end of Part VII.

CHAPTER XIII

MORAL SUASION — OTHER METHODS

I. ESSENTIAL AND NON-ESSENTIAL LOANS

IN A previous discussion I have pointed out that in the years 1917-19 reserve authorities attempted to dictate proper lending policies of member banks. Their method of procedure was to differentiate essential from non-essential loans, a method of controlling the policies of member banks easily justified in the midst of a war. Industries were rated according to their contributions to the Allied cause.¹ The distinctions involved were not closely similar to that subsequently made between speculative and non-speculative loans, for many industries and transactions classified as non-essential in 1918 were important peace industries and non-speculative; and, in truth, many transactions essential to the prosecution of the War were represented by paper that was not eligible for rediscount.²

During the war period, the authorities pointed out to member banks that it was necessary to encourage essential industries.³ In 1918 Lodge demonstrated the dangers involved in any attempt of reserve authorities to define essential industries and transactions.⁴ At first reserve officials made an attempt to define the issues broadly; but it was not long before they realized that any such decisions were fraught with danger. Accordingly, with the termination of the

¹ Warburg proposed as criteria: (1) Health and strength of the people, (2) Interest of the government in prosecution of the War. U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, pp. 64-65.

² U. S. House Ways and Means Committee, Hearings: *War Finance Corporation* (65: 2), 1918, pp. 3-4.

³ In July, 1918, the Board dispatched a letter to each member bank, requesting the curtailment of non-essential credits, and also requested the reserve banks to organize banks and business men with a view to attaining this end. *Mim.L.S.*, 1918, X-1049; *C.F.Chr.*, 1918 (107), p. 229, also cf. p. 552; Governor Harding urged member banks to differentiate between essential, less-essential, and non-essential credits. *Addresses and Statements of W. P. G. Harding*, No. 6. (*The National Banks in War Time*. Address of September 25, 1918). The Federal Advisory Council suggested that definitions be left to the discretion of member banks. *F.R.A.*, 1918, p. 862. (Recommendations of September 17, 1918.)

⁴ U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65:2), 1918, p. 40.

War the Board consistently maintained that it was the task of member banks to determine essential industries and transactions.¹ Occasionally the responsibility was placed on the reserve banks; but the Board was reluctant to confer such authority on them.²

In peace times, criteria of the importance of any particular industry or transaction differ from those used in war times.³ After 1921, little was heard of this distinction between essential and non-essential industries. The Federal Reserve Board, however, has recently (1929) reverted to its wartime position in a sense, for the discrimination against speculative loans involves a similar policy; but the Board is in a somewhat stronger position now, for the reserve banks were requested not to discount paper financing speculative transactions. — the direct financing of such transactions by reserve banks is prohibited — whereas no distinction between essential and non-essential transactions is to be found in the Federal Reserve Act.⁴

2. ACCOMMODATION TO BE GRANTED WITHOUT DISCRIMINATION⁵

Reserve banks retain the discretion to discount or refuse eligible paper. But the volume of eligible paper is much greater than the amount that reserve banks can discount. Responsible authorities have insisted for many years that eligible paper is not necessarily acceptable or good paper, and that reserve banks may refuse paper

¹ In August, 1920, the Board held that it was "not sufficiently close to the actual day-to-day requirements of business to undertake to lay down rules as to what loans are for essential purposes and what are not." *F.R.B.*, 1920, p. 774. In April, 1920, the governors concluded that it was not practicable to discriminate against non-essential business. *Mim.L.S.*, 1920 (12), x-1906, p. 490. To a request for a definition of essential industries in July, 1920, the Board replied that the responsibility lay with the member banks. *Acc. Bull.*, July, 1920, pp. 1-2; *C.F.Chr.*, 1920 (111), p. 138. Governor Harding was pleased with the sound judgment displayed by the Board and most reserve banks in refusing to select essential industries in 1920. *Proceedings*, October, 1920, I, 60.

² *F.R.B.*, 1920, pp. 557-558.

³ *Mim.L.S.*, 1919 (11), x-1758, p. 992.

⁴ H. P. Willis, "Essential Credit," *American Bankers' Association Journal*, November, 1920, p. 364.

⁵ "Said Board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and shall, subject to the provision of law and the orders of the Federal Reserve Board, extend to each member bank such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks." (Section 4.)

that is eligible but not good. In a later chapter I shall discuss this particular phase of the problem; and in a former chapter, it was pointed out that the legal aspects of this question are still in dispute. The question raised then was whether reserve banks could refuse to discount eligible paper because the investment policy of a bank was not approved; the question under consideration now is the propriety of the refusal of eligible paper on the grounds that the resources of reserve banks are limited, and because Section 4 provides that member banks are to be accorded equitable treatment, whether reserve banks may restrict accommodation in order to assure equitable treatment and prevent an exhaustion of resources. The necessity of according equitable treatment might be taken as an excuse for conserving resources in order to be prepared to accommodate banks that have not taken their fair share of the resources of the reserve banks. Although this may be an expedient excuse for withholding accommodation, refusal, on these grounds, to use the resources of a central bank in periods of unusual demand cannot easily be justified.

In the attempt to obtain control of the situation in 1928-29, the reserve banks made little use of this provision of the Act; but in 1919-20, they relied on the authority conferred by the provision to justify their attempts to bring pressure on individual banks. Undoubtedly, the failure in 1928-29 to seek support from the provision in Section 4 may be ascribed to the difficulty of interpreting the provision in any qualitative sense; no mention is made of any qualitative test. Moreover, the application of Section 4 was more likely to be embarrassing to the Board in 1928-29, for it might be contended that banks had been deprived of the protection offered by the provision in Section 4, which had been introduced to assure member banks a fair share of the resources of reserve banks.

When, however, the possibility of exhaustion of the resources of the reserve banks was first suggested, the attention of authorities was directed to the provision in Section 4 now under consideration. It had been inserted in the Act by the Senate committee in order to placate the radical element in the committee that feared discriminatory treatment; the object was to guarantee each member bank its fair share of accommodation. Little attention had been paid to this provision until the latter part of 1916. Governor Harding in November, 1916, warned member banks that reserve banks might be pressed for additional accommodation later, and that the reserve

banks had obligations imposed by Section 4.¹ In October, 1917, Chairman Martin of the St. Louis Bank stated even more clearly the limitations on advances to individual member banks provided in Section 4.² But these utterances were sporadic and the provision did not become of practical import until late in 1919.

In the winter of 1919-20, the Board and its spokesmen frequently called attention to the limited capacity of reserve banks, the imminence of rationing, and the unwillingness of reserve officials to allow a few banks to monopolize the resources of reserve banks;³ but even during this period of rapid inflation in 1919-20, the Board once renounced its authority under Section 4. In the March *Bulletin*, it was held that the reserve banks could determine theoretically the fair share of the resources of the reserve banks to be allotted to each member bank, but that it was preferable to grant all accommodation at a price.⁴

The lapse was only momentary. Introduction of progressive rates, which theoretically are based on the principle of equitable treatment, is evidence of the continued faith in Section 4. On the other hand, the introduction of progressive rates was an admission that it was inexpedient to deny accommodation to banks offering eligible and sound paper; but excessive borrowers might be charged higher prices; and this method of discrimination, introduced to assure more equitable treatment, required specific approval by Congress. The adoption of progressive rates was optional; and, therefore, at the May, 1920, Conference, Harding was once more emphatic in asserting that reserve banks might refuse accommodation on the grounds that a member bank had more than its share of reserve accommodation.⁵ Anticipating the position that was to be taken in 1929, he now held that the directors of a reserve bank might limit the "volume and character of loans which in their judgment" might "be safely and reasonably made to any member bank."⁶

¹ *F.R.B.*, 1916, p. 587.

² *C.F.Chr.*, 1917 (105), p. 1661.

³ *Ibid.*, 1919 (109), p. 1933; *Mim.L.S.*, 1920 (12), x-1789, p. 84; *F.R.B.*, 1920, pp. 117-118.

⁴ *Ibid.*, p. 241.

⁵ Federal reserve banks are within their rights in informing member banks that they have taken more than their share and they must liquidate; "the rule ought to be laid down and a member bank ought to be made to understand that it cannot use the resources of Federal reserve banks for its own private advantage for profit." U. S. Senate Document No. 310 (67: 4), 1923, p. 8.

⁶ *F.R.B.*, 1920, p. 580.

During the following months, the principle of the limitation of accommodation with the aim of assuring equitable treatment seems to have been rather widely accepted. One reserve bank announced that its resources were to be at the disposal of the largest number of banks and that it would give consideration to the rights and probable needs of other banks.¹ In September, Governor Harding said that each member bank was cognizant of the amount of accommodation it could reasonably expect.² At the Conference of October, 1920, several governors made a vigorous statement of this principle.³ Repeated affirmations of the rights of member banks not borrowing their fair share had, apparently, one unfortunate effect, as may be inferred from the fact that Governor Harding found it necessary to deny that the Board had ever heard of any sustained complaint that any member had been denied its fair proportion of the resources of reserve banks.⁴ In the years of deflation, the equitable distribution of reserve funds was an important consideration in the formulation of policies.⁵

The authorities continued to make use of their authority under Section 4, especially in dealing with continuous borrowers. (This subject is discussed in the next section.) "In general, the basis of credit to be extended by a reserve bank to its member banks is defined in Section 4 of the Federal Reserve Act, which states that the board of directors of a reserve bank shall extend to each member bank such discounts, advancements, and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks. This statement in the basic law of the Federal Reserve System underlies to a large extent the policy of the reserve banks and their attitude in individual cases toward extending credit to the member banks. The principle set forth in the Act goes beyond the question of the technical eligibility and even

¹ *C.F.Chr.*, 1920 (110), p. 2142. Mr. Alexander, a director of the New York Reserve Bank said, however, that "when we consider the matter of rationing credit, figuring perhaps what the Federal reserve bank can lend from its resources, we are holding at the disposal of institutions that will never want to rediscount, a very considerable amount of credit." U. S. Senate Document No. 310 (67: 4), 1923, p. 13.

² W. P. G. Harding, *The Functions and Policies of the Federal Reserve System*, p. 9. (Address at Cleveland, September, 1920.)

³ *Proceedings*, October, 1920, I, 45, 158.

⁴ *C.F.Chr.*, 1920 (111), p. 938.

⁵ Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 53; U. S. House Banking and Currency Committee, Hearings: *Amending the War Finance Corporation Act* (67: 1), 1921, pp. 7, 9.

of the intrinsic soundness of paper offered by a member bank to a reserve bank. Even when the paper is unexceptionable in every respect, the reserve bank must in addition be fully assured that further credit may be granted to this member, not only safely and reasonably, but also with due regard for the claims and demands of other member banks. This question arises not infrequently in cases where a member bank remains continuously in debt to a reserve bank for a considerable length of time.”¹

But little was heard of Section 4 after 1926. Any authority derived from this provision in Section 4 was virtually limited in application to the problem of continuous borrowers. Section 4 involved a quantitative rather than a qualitative test; the latter received much more attention in the year 1929.

3. CONTINUOUS BORROWERS

Governor Harding requested the governors of the reserve banks to present at the Conference of October, 1919, a list of the member banks which habitually rediscount in excessive amounts.² At the October, 1920, Conference, Governor Seay commented on the necessity of discouraging continuous borrowers.³

But serious attention was not given to the problem until 1921.⁴ Member banks in a rather extended condition, especially in the agricultural sections, were unable to repay the reserve banks in 1921 and following years. A large proportion of their loans was frozen as a result of the depression in the agricultural sections. In spite of the continued agricultural depression in 1922, reserve banks made appreciable progress in their campaign to reduce the number of excessive and habitual borrowers.⁵ Nevertheless, of 588 banks in

¹ *F.R.A.*, 1926, p. 4. The Richmond Bank commented as follows: "Therefore, if any member bank is borrowing from its Federal reserve bank an amount considerably greater than it would be able to obtain if all member banks were asking for their share of available credit at the same time, it is, in effect, in the position of using credit to which some other bank or banks would be entitled if need for it arose." Richmond Federal Reserve Bank, *Questions and Answers*, p. 48.

² *Mim.L.S.*, 1919 (11), X-1701, pp. 817-818.

³ *Proceedings*, October, 1920, I, 42.

⁴ *F.R.A.*, 1921, p. 96.

⁵ At the end of 1921, there were still 906 member banks borrowing from the Federal reserve banks no less than three times their normal basic line. Their total borrowings constituted 494 per cent of their basic line, while the total borrowings of all member banks were only 40 per cent of their basic line. By the end of November, 1922, only 376 banks were borrowing as much as three times their basic lines. *Ibid.*, 1922, p. 3.

debt to the reserve banks throughout the year ending August 31, 1925, a considerable number had been in debt since 1920; of 259 member banks (national) that became insolvent in the years 1920-25, 80 per cent had been habitual borrowers.¹ Governor Strong attributed the prevalence of continuous borrowing to the loss of deposits, while Professor Sprague pointed to excessive extensions of credit.²

In the years 1925 and 1926, the Board made vigorous efforts to reduce the volume of continuous borrowing. There was requested of chairmen in April, 1926, information on the following matters:³ a list of banks borrowing continuously during 1925 which in the opinion of reserve officials would be able to liquidate their indebtedness during the year; another of banks which were apparently operating with inadequate capital and borrowing for the purpose of carrying on normal business; and a third of banks which held substantial amounts of United States securities or of other bonds and stocks in their portfolios or made substantial loans in other communities and borrowed from the reserve banks to increase their profits. The Board expressed satisfaction with the results of this campaign and justified its policy as follows: "In using their influence to discourage member banks from making continuous use of the lending facilities of the reserve banks, the operating officials of the reserve banks are not only protecting the resources of the Federal Reserve System as a whole, but are also helping individual member banks to conserve their capacity to borrow at the reserve bank at times when adverse economic conditions in their localities and among their customers may make additional dependence upon the resources of the reserve system not only justifiable but necessary."⁴ Reserve banks cooperated in this campaign.⁵

¹ *Proceedings*, November, 1925, p. 75. The Board pointed out that 150 of these banks were in an over-extended condition, and that of the remaining 438, 129 had been borrowing continuously since 1920. *Mim.L.S.*, 1926 (24), X-4578, p. 278.

² *Proceedings*, November, 1925, pp. 149-150.

³ *Mim.L.S.*, 1926 (24), X-4578, pp. 278-279.

⁴ *F.R.A.*, 1926, p. 5.

⁵ Chairman Hoxton of the Richmond Bank informed the banks of his district that too many banks were borrowing throughout the United States year in and year out and that they apparently did not recognize the obligation to effect the seasonal liquidation that they expected from their customers. Richmond Reserve Bank, *Proceedings*, 1926, p. 12.

Governor Talley of the Dallas Bank pointed out that regardless of conditions, member banks, habitually in debt in the last five years, were indebted to the same extent in January of each year. When a crop is harvested, the notes representing it ought to be liquidated. Dallas Reserve Bank, *Proceedings*, 1927, p. 65.

Attacking the problem with renewed vigor in 1929,¹ the Board requested information on the average number of days that member banks, habitual borrowers during the last quarter, had been in debt in the last year.² Perhaps the Board went too far in announcing that "the policy of the Federal Reserve System in discouraging frequent or continuous borrowing by member banks having a large volume of security loans, a policy which has been in effect *since the establishment* of the Federal Reserve System but has received special emphasis in recent months, has also been a factor in this situation."³ (Italics mine.)

In other words, discrimination against continuous borrowers was a convenient instrument in the campaign of moral suasion. It has been admitted by at least one reserve bank that criticism of continuous borrowing was merely an excuse for controlling the lending policies of member banks.⁴ Moreover, pressure on continuous borrowers was easily justified by the authority conferred under Section 4 and was consistent with the tradition painfully built up in the years 1922-27 that member banks were to borrow for temporary and emergency purposes only.

¹ *F.R.A.*, 1928, p. 8.

² *Mim.L.S.*, 1929 (30), St. 6710, p. 473.

³ *F.R.B.*, 1929, p. 361.

⁴ In a letter of protest to the New York Bank of May, 1929, the Board sent to the New York Bank a list of member banks borrowing continuously and frequently and carrying a large volume of security loans, and requested action by the New York Bank. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 171.

CHAPTER XIV

CONTROL OF INTER-BANK RELATIONS

I. CORRESPONDENT RELATIONS AND RESERVE BANK ACCOMMODATION — THE FACTS ¹

IN THEIR attempts to control the use of their resources or to exercise control of the monetary situation, reserve banks have been hampered by the persistence with which both member and non-member banks have maintained important relations with correspondents. Undoubtedly the framers of the Federal Reserve Act had anticipated that correspondent relations would become of minor importance once the reserve banks were created; but they were to be disappointed. Balances with correspondents remained at a very high level, as the following figures reveal:

| | Due to Banks | Net Due to Banks (Due to <i>minus</i> due from) |
|------------------------------|-----------------------|--|
| | (Millions of dollars) | |
| 1. Member banks ¹ | | |
| June 30, 1914 | 2,186 | 795 |
| June 30, 1930 | 3,832 | 1,472 |
| 2. National banks | | |
| June 30, 1914 | 2,186 | 795 |
| June 30, 1930 | 2,367 | 619 |
| 3. All banks | | |
| June 30, 1914 | 2,705 | - 166 |
| June 30, 1930 | 4,338 | 867 |

(1) June 30, 1914 — member banks = national banks.

For the problem under discussion the gross balances (due to banks) are of more significance than the net balances. If all banks were included and the statistical material were free of errors, there would be no net balance for all banks. That a net balance is indicated for *all* banks is evidence that the smaller banks in *possession* of balances at other banks in excess of balances held for other banks (as well as foreign banks) do not report or (and) that banks do not

¹ Unless otherwise indicated statistical material in this section has been taken from the *Annual Reports* of the Comptroller of the Currency and the Federal Reserve Board, and the Report of Condition of Member Banks in the *Federal Reserve Bulletin*.

The reader is referred to Charts XII-XV and the discussion on pp. 771-781 for a statistical study of the relations between banks and their correspondents, as contrasted with the relation of banks to reserve banks. Also see chapters XXXVI and XLI.

report fully their balances *at* (due from) others. In computing reserves member banks can profit by revealing their balances at other domestic banks (due from banks) only to the extent that they hold bankers' balances or their equivalent (certified checks outstanding, etc.).

The balances at member banks (1, above) give an exaggerated impression of the increase in balances, for no allowance is made for the large influx of state banks into the Federal Reserve System. On the other hand, the figures for national banks (2) give an inadequate impression of the extent of the increase in balances. This is evident if we compare the figures for 1914 and 1930 of national and state banks.

| | Due to Banks (Millions of dollars) | |
|----------------------|---------------------------------------|--------------------|
| | 1914 | 1930 |
| National banks | 2,186 | 2,367 ¹ |
| State banks | 519 | 1,657 |

(1) The total for 1930 of balances at both national and state banks does not agree with the total above for *all* banks because foreign balances (287 millions) are included in the total for *all*. A small discrepancy still remains.

Apparently national banks have not maintained a constant proportion of inter-banking business, as they have not of banking in general. We may therefore consider the increase of 60 per cent for all banks as representative of the absolute increase in correspondent balances. But it may rightly be held that balances were at an unusually high level in 1930 because monetary conditions were easy. The increase for 1929 (over 1914) was but 33 per cent. Balances were at a notoriously low figure then, and perhaps the mean of these two figures (46 per cent) may be fairly taken as the increase in bankers' balances.

Although balances at correspondents have increased since 1914, the increase has not been nearly so large as the increase in individual deposits:

| | (1) | (2) | (3) |
|------------------|-----------------------------------|-------------------------------|------------------------|
| | Deposits (Millions of dollars) | Balances at Correspondents | Per cent (2) to (1) |
| June, 1914 | 18,566 | 2,705 | 15 |
| June, 1922 | 37,615 | 3,244 | 9— |
| June, 1930 | 54,954 | 4,338 | 8— |

Even if balances at reserve banks in 1930 (2,392 millions) are included, the total balances are but 12 per cent of deposits. The figures for 1922 are included in order to show the trend in the following

ten years; conditions on the money market were similar in 1922 to those existing in 1930. In view of the fact that *all* balances (with correspondents and reserve banks) are not so large in relation to deposits as in 1914, reserve authorities ought perhaps to be satisfied that relations with correspondents are not quite so important as they then were. Perhaps the main difficulty is that membership in the Federal Reserve System is less inclusive than it might be; but there are many other reasons why correspondent relations remain so important.¹ The study of the relative movements of deposits with balances is not conclusive. Balances might more reasonably be compared with demand than with all deposits; and such comparison would reveal a larger relative growth of correspondent balances. Unfortunately, demand and time deposits are not available for all banks; but it may be pointed out that from 1922 to 1930 demand deposits of member banks increased but 30 per cent as compared with an increase of 93 per cent for time deposits.²

Professor Young has observed that the net balances due to banks outside of New York City (1913 to 1926) were a much larger part of the total net balances of *national* banks than in 1913. The explanation is of course that the New York banks especially suffered as a result of the compulsory transfer of reserves to the reserve banks.³ A study of all member banks does not always reveal similar tendencies. Apparently national banks were losing strength to a greater degree in New York than elsewhere.

Professor Young observed the changes from 1914 to 1926. Figures for member banks are not available for 1926; therefore the year 1925 has been substituted. It will be concluded from an examination of the figures in parentheses (columns 4 and 6) — percentage

¹ This problem was thoroughly discussed in the course of the hearings on membership in the Federal Reserve System (1923). In particular the refusal of reserve banks to pay interest on deposits, the absence of red tape in rediscounting and in other relations with correspondents, and the inadequate advantages received in payment for the price of membership, have tended to stimulate friendly relations between commercial banks. Hearings: *Inquiry on Membership* (68th Cong.), 1923, especially pp. 19, 58, 65, 190, 235-236, 248-249, 373.

² It may be pointed out, however, that the percentage of gross balances of member banks to demand deposits declined from 39.5 per cent in October, 1913 (national banks only) to 22.9 per cent in 1920 and 19.6 per cent in 1930. The decline is overdone, however, because of the fact that demand deposits in the System increased more rapidly than balances as a result of the formation of the reserve system: banks coming into the System had a larger proportion of demand deposits to balances than national banks in 1913. Cf. G. W. Dowrie, *American Monetary and Banking Policies*, pp. 66-67, and H. P. Willis and W. H. Steiner, *op. cit.*, p. 71.

³ A. A. Young, *An Analysis of Bank Statistics for the United States*, pp. 62-63.

of total net balances held by banks outside of New York — that Professor Young was justified in making his generalization concerning the relative loss of balances by *national* banks in New York from 1914 to 1926. But the trend for *member* banks outside of New York from 1919 to 1925 was slightly downward for national banks, and upward for all member banks. Also we note the important differences in the movements from 1914 to 1919 as compared with

| | Net Balances (Millions of dollars) | | | | | |
|------------|------------------------------------|---------|----------------|------|---------|------|
| | New York City | | Outside | | | |
| | National banks | Members | National banks | | Members | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| 1914 | 642 | ... | 153 | (18) | ... | ... |
| 1919 | 882 | 1,082 | 511 | (37) | 444 | (29) |
| 1925 | 849 | 1,346 | 507 | (33) | 615 | (31) |
| 1930 | 513 | 1,155 | 106 | (17) | 317 | (22) |

those from 1919 to 1925. The explanation is undoubtedly that the loss of balances by New York banks to reserve banks played a small part in the latter period. Also the tendency observed by Professor Young has been reversed since 1925 and member banks (and national) in New York City seem to be regaining their position.

For the object of studying the relative importance of the New York and outside money markets, gross rather than net balances ought to be considered.¹ A study of *gross* balances reveals that the New York City banks have almost held their own since 1919, although the figures for all member banks are more convincing on this point than are those for national banks. The reduction of the percentage of gross balances from 1919 to 1930 was 8 per cent for national banks and but 3 for all member banks (33 to 25 and 38 to 35 per cent). National banks were apparently losing strength to state banks in New York City. From 1920-21 to 1930, member banks in New York City apparently held their own (see the table below).

That it makes a great deal of difference whether gross or net balances are studied is apparent from the following:

PERCENTAGE OF BALANCES OF BANKS IN NEW YORK CITY TO ALL BALANCES.
(MEMBER BANKS — NATIONAL IN 1913 ONLY)

| | Gross | Net |
|---------------------|-------|------|
| October, 1913 | 81.0 | 29.4 |
| May, 1920 | 66.0 | 34.2 |
| June, 1921 | 68.1 | 37.9 |
| June, 1930 | 78.5 | 34.2 |

¹ Cf. Charts XIV and XV.

Thus member banks in New York City lost ground from 1913 to 1920 if net balances alone are considered, and gained if gross balances are considered; but from 1920 to 1930 they gained if the former and maintained their position relative to the rest of the country if the latter is the index. Therefore the period 1914-19 or 1914-20 ought to be distinguished from 1921-25, 1921-26, or 1921-30. Member banks in New York City held a larger proportion of net balances in 1930 than they did ten years before, and approximately the same proportion of gross balances. In other words, outside banks (members) attracted balances as rapidly as did member banks in New York City; but even more rapidly they deposited cash with New York banks with the result that the proportion of net balances of outside banks declined. It may also be remarked that the distribution of balances, both gross and net, between member banks is not conclusive for all banks in the country. Thus balances of member banks in New York City probably constituted a relatively larger proportion of all banking balances in New York in 1930 as compared to 1920, than was true of the rest of the country; and therefore the gain of New York may be accounted for by a redistribution of the resources of members between New York and elsewhere.

Reserve officials incessantly complain of the practice on the part of non-member banks of tapping the resources of the reserve banks without contributing to their capital and reserves.¹ All in all, there is not much justice in this complaint.² The net balances of members were approximately 1,500 millions in 1930; that is to say, 1,500 millions were deposited by non-members with member banks. This is on the assumption that member banks do not hold large balances with non-member banks. In so far as they hold balances with non-members, the net debt to non-members is reduced. Probably balances of members with non-members are of small proportions. Also non-members have been indebted to members as much as 400 to 500 millions in recent years. Their loans from members are small compared to their deposits with members; this fact is espe-

¹ Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 58. Governor Seay at least recognized that only member banks without relations with non-members are annoyed at the advantages conferred on non-members.

² The Board at times seemed aware of this position. In 1923 it was pointed out that bankers' balances in New York were in excess of the reserves of the New York banks and hence withdrawals of these deposits resulted in borrowing by New York banks and were an important cause of the increased borrowing at reserve banks in 1920. *F.R.B.*, 1923, pp. 25-26.

cially evident if the inter-banking loans and deposits of country banks are compared with the loans and deposits of other depositors. The large city banks are in the same relation to these country banks as the latter are to their own depositors. Banks in the financial centers with important correspondent relations function as central banks in relation to their depositing banks. One has but to inquire what the situation would be if these non-members were to hold their own reserves, to be assured that they make important contributions to the resources of the reserve banks. If they should withdraw 1,500 millions of balances, or even one half, which we might assume constitutes an important part of their reserves, we can envisage dire effects on the reserve system. Even if they were to join the System, they would be compelled to borrow 400 millions or thereabouts to provide reserve capital and reserves. A temporary state of indebtedness would thus become permanent.

Borrowings of non-member banks and trust companies from all banks were as follows:¹

| | (Millions of dollars) | | | | |
|---------------------------------|-----------------------|------|------|------|------|
| | 1918 | 1920 | 1921 | 1923 | 1926 |
| Borrowing | 268 | 406 | 438 | 220 | 188 |
| Percentage due from banks | 24 | 29 | 35 | 16 | 11 |

Even in the crucial period 1919-21 the advances to banks by correspondents were not so large as is sometimes assumed. (The period 1928-31 is discussed in the next volume.) Thus on March 4, 1919, national banks had advances of 60 millions outstanding to national, and 228 millions to state, banks.² (Perhaps one third of the total of 288 millions was to members.) In June, 1920, non-members were in debt approximately 400 millions, and member banks approximately 200 millions, to correspondents. Member banks are not likely to borrow so large a proportion of their total loans from correspondents, for they can borrow from reserve banks. Thus, at the peak of 1920-21, national banks were indebted to correspondents for but 10 per cent of their total borrowings, and on May 4, 1920, member banks were in debt to reserve banks approximately 2,600 millions and to correspondents 190 millions.³ Mitchell observes that na-

¹ L. L. Watkins, *Bankers' Balances*, pp. 49, 53, 100, 194. Cf. H. P. Willis, "The Federal Reserve System — A Retrospect of Eight Years," *Political Science Quarterly*, 1922 (37), p. 569.

² L. L. Watkins, *op. cit.*, p. 198.

³ Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 654; L. L. Watkins, *op. cit.*, pp. 175, 194.

tional banks in agricultural counties were borrowing 85 per cent as much from other banks in March, 1922 as from reserve banks, and in non-agricultural counties but 23 per cent.¹

Non-member banks increased their loans from correspondents by approximately 175 millions from 1918 to 1921. But non-member banks rely more on withdrawing balances than on increased loans. The withdrawals are not of large proportions in view of the large balances held. Thus balances at member banks reached a maximum of 4,106 millions at the call day, December 31, 1919, and a minimum of 2,687 millions on April 28, 1921. The withdrawals were more than 1,400 millions. But the reduction of balances due *from* banks of member banks was almost 1,200 millions. Therefore the net loss to non-members through withdrawals of deposits was but 200 millions approximately. Similar figures are available for the year ending June 30, 1921, in which period the losses were heaviest. Non-members withdrew 303 millions, of which 279 millions were withdrawn from banks in New York City.

We may draw several conclusions from these figures. The withdrawal of deposits and the resulting necessity of rediscounting are to be associated more largely with withdrawals of member banks than with those of non-members. A small part is probably to be explained by withdrawals of foreign banks. But probably two thirds of the withdrawals from member banks have been made by members; and it is evident that the New York banks bore the brunt of the burden. It is also worth noting that member banks lost but one third of their gross balances during this period; and members outside of New York met the demands of banking depositors by withdrawing equivalent sums from New York. Also, recent figures reveal that New York banks contribute a large proportion of the additional inter-banking accommodation made during periods of strain. From June 30 to December 31, 1931, all member banks increased their advances to banks from 457 to 791, or 334 millions; of the additional cash, all but 10 millions were contributed by reserve city banks in New York City.

Reserve banks have been embarrassed by demands for accommodation emanating from member banks but obtained in part either for non-member or for other member banks in their own districts, although frequently for banks outside their districts. They have

¹ W. F. Mitchell, *op. cit.*, p. 78. He added that debts of banks in agricultural counties in the *West* were several times as large as their debts to reserve banks.

thus lost the opportunity to wield the control that can be exercised when a bank borrows directly; and a refusal of accommodation because the use of the funds is not approved or because bankers' deposits are being withdrawn is not in accordance with the accepted practices of central banking. Moreover, although the authorities might be reasonably sure that the occasion for increased accommodation for the System as a whole was the withdrawal of balances, they could not easily discover the occasion for borrowing by individual banks;¹ and the more important reserve banks subjected to these demands were not prepared to make inquiries concerning the policies of members.

Undoubtedly there have been occasions when correspondent relations embarrassed the reserve banks, for member banks have been able to borrow from correspondents when the reserve bank deemed a policy of restraint desirable; and member banks might take advantage of easier monetary conditions in other districts by borrowing through correspondents.² That is the explanation of the fact that inter-bank relations tend to bring uniform rates for reserve

¹ At the Hearings of the Commission of Agricultural Inquiry, an interesting table was presented in which the loans to banks and corporations outside of New York state, balances of out-of-town correspondents, total borrowings at the Federal Reserve Bank and the loss of deposits from January 1 to February 14, 1921, were given for each of the five large New York banks. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 648-649. The assumption was that large New York banks were compelled to borrow because of inordinate demands by outside banks and corporations and the loss of deposits to outside banks. Although the loss of deposits for the five banks was large and they were lending outside freely, it is not at all clear that the correlation between borrowings of reserve banks and these other variables was close for each bank. Undoubtedly, these five banks were bearing a heavy load. All member banks were in debt 241 millions to correspondents in February, 1921, and non-member banks 438 millions in June, 1921; these five banks had advanced 97 millions to banks outside of New York in February, 1921. More emphasis, however, should have been put on the reduction of balances. Reserve city and country national banks reduced their deposits (bank) 379 millions and their total borrowings 291 millions from November 15, 1920 to April 28, 1921. The increase in non-member bank borrowings from June, 1920 to June, 1921 was but 32 millions. (Compiled and calculated from L. L. Watkins, *op. cit.*, pp. 169, 182, 194.) On the other hand it is evident that as the reserve banks applied pressure, banks borrowed more heavily from their correspondents. Cf. H. P. Willis, *The Federal Reserve System*, pp. 1512-1513 (*op. cit.* is used in future for this work).

² *Proceedings*, October, 1922, I, 83-84; Dallas Reserve Bank, *Proceedings*, 1927, p. 26. In 1922, Governor Strong commented on the potential competition of correspondents as an obstacle to policy. In 1926, the chairman of the Dallas Bank complained that the policy of restraint of that Bank had been unsuccessful, because member banks borrowed from correspondents. From May 4, 1920 to April 28, 1921, borrowings from reserve banks were reduced by 19.5 per cent and correspondents increased their advances by 26.8 per cent. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 654.

banks.¹ On the other hand, it is evident from the magnitude of these loans that they have generally been of limited significance.² Moreover, these advances have not generally been on a competitive basis with advances from reserve banks, for, as Riefler has pointed out, the rates charged banks have been determined by the rates on customer loans, not by the rediscount rate of reserve banks.³ They, however, influence customer rates. Member banks frequently borrow from correspondents when they hold inadequate supplies of eligible paper. Although banks have frequently borrowed from correspondents when a policy of restraint was requested by reserve banks, correspondents have also frequently reduced the strain on reserve banks by lending freely in periods of stress;⁴ and they have been able to lend, not only when a central bank might not have been able to assist, but on a basis of close intimacy that no central bank, particularly the large eastern reserve banks, could conceivably achieve.⁵

2. OPPOSITION TO THE USE OF RESERVE FUNDS OBTAINED BY INDIRECT MEANS

Reserve banks have been concerned rather too much with the problem of the extension of credit to non-member banks. It will be recalled that in the years 1915-18, the Board made several rulings on the subject; but extensions of credit to non-member banks were encouraged in 1917-18 in order to facilitate the financing of the War. Beginning in 1919-20, the authorities displayed more hostility to the practice of extending credit to non-member banks; at the Conferences of 1920, this problem received a considerable amount of attention. Several reserve officials objected to vigorous action to

¹ *F.R.A.*, 1923, p. 4.

² L. L. Watkins, *op. cit.*, pp. 183-187. The country banks alone have been borrowers on a large scale from correspondents, and their loans from correspondents have fluctuated over a period of several years from 15-20 per cent of their total borrowings and have approximated 5 per cent of their balances.

³ W. W. Riefler, *op. cit.*, pp. 92-93.

⁴ Hearings: *Stabilization* (69: 2), 1926, I, 439. (This chart is of some significance for this problem.)

⁵ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 399-401. (Evidence of Mr. Traylor.)

A banker before a Congressional committee expressed the relation in the following manner: "I find I want \$35,000. I am sending you down a batch of paper. Can I get it?" The city banker replies, "Certainly." Hearings: *Inquiry on Membership* (68th Cong.), 1923, pp. 248-249.

stop expansion on the grounds that member banks in the large cities were lending liberally to correspondents,¹ that the burden would then be shifted to banks indebted to correspondents, that banks had begun to draw on balances with other banks that had hitherto been dormant, and, finally, that the pressure to liquidate emanating from banks in the financial centers had put more pressure on depository banks and reserve banks subjected to pressure by their correspondents.²

In 1920-21, reserve banks were freely criticized for their restrictive measures, with the result that they made many concessions to political expediency. They now offered their facilities to non-member banks, which were allowed to borrow through members;³ but this privilege was withdrawn in 1923, and the reserve authorities thereupon announced that they would not extend accommodation to banks that had not contributed to the resources of the reserve banks.⁴

In 1923 authorities concluded that the soundness of the banking situation was impaired by the failure of large numbers of banks to join the reserve system, and it was hoped that they might be induced to strengthen themselves and join; it was also clear that one reason for not joining the System was that non-member banks could obtain adequate facilities from their correspondents.⁵ The Board introduced rigid regulations in order to prevent the use of reserve funds by non-members.⁶ Reserve banks were forbidden to accept notes endorsed by non-member banks or their officials, unless the

¹ Thus sixteen of the largest banks in the Minneapolis District had loans outstanding to country banks of 78 millions in October, 1920, which amount was in excess of their debts to the reserve bank. Federal Reserve Bank of Minneapolis, *The Federal Reserve Bank, and the Farmer and Stockman* (1921), p. 7.

² U. S. Senate Document No. 310 (67: 4), 1923, pp. 24, 28 35; *Proceedings*, October, 1920, I, 13-15, 109, 167.

³ *Mim.L.S.*, 1921 (15), x-3176, p. 871; *F.R.B.*, 1921, p. 775. Non-members were especially aided by the War Finance Corporation in these early post-war years. Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 190. It is also revealed by the experiences of the last few years that the reserve system or some governmental agency must protect non-members, or member banks will be affected adversely by numerous failures.

⁴ *Mim.L.S.*, 1923 (18), x-3750, p. 439; *ibid.*, x-3784, p. 597; *F.R.A.*, 1923, p. 50.

⁵ *B.M.*, 1923 (107), pp. 709-710.

⁶ The Richmond Bank said that "in every case, and particularly if the member bank was borrowing at the time the paper was acquired from the non-member bank, the burden of proof is placed by the Federal Reserve Bank on the member bank to show that the paper was not taken with the intention of passing it on to the Federal Reserve Bank." Richmond Federal Reserve Bank, *Questions and Answers*, p. 44.

note was not in fact offered to finance the non-member bank.¹ Apparently, non-member banks have obtained accommodation in this manner, and the possibility of obtaining accommodation by endorsements may account for the excessive zeal of reserve officials in attempting to reduce accommodation to non-member banks. In view of the small volume of loans obtained directly from correspondents, I am inclined to conclude that this evil has been exaggerated.² The reserve authorities have even guarded carefully the procedure by which reserve banks were to extend accommodation to Federal Intermediate Credit Banks and to lend on Adjusted Service Certificates endorsed by non-member banks.³ But on the recommendation of the Dallas Bank, the Board exempted sight bills of exchange described in Section 7 of Regulation A from the prohibition pertaining to bills bearing the endorsement of non-member banks.⁴

3. ATTITUDE OF RESERVE AUTHORITIES TOWARD CORRESPONDENT RELATIONS AND THE PROBLEM OF INTER-BANK BORROWING

Correspondent relations were an important subject of discussion at the hearings conducted for the purpose of investigating the Money Trust as well as for revising our banking system. That reserves were to be kept at the Federal reserve banks and that an exception to the limitation on the liabilities of member banks was restricted to advances from reserve banks — advances from correspondents not being thus excepted — are adequate testimony of the desire to loosen the bond between commercial banks.⁵

¹ *Mim.L.S.*, 1927 (26), x-4871, p. 353. (Recommendation of governors on this policy.) Cf. *ibid.*, x-4873, p. 396.

² Consult Charts XII and XIIIa.

³ *F.R.A.*, 1926, p. 491. The reserve bank might require information to assure itself that a non-member bank presenting a certificate was in a satisfactory condition. Cf. *F.R.B.*, 1923, pp. 429-430.

⁴ *Mim.L.S.*, 1928 (29), x-6145, pp. 289-290; *ibid.*, x-6191a, p. 368.

⁵ *F.R.B.*, 1920, p. 584. It is also worth pointing out that the authorities excluded bills subsequently rediscounted from the limit on indebtedness of national banks only if the bills were rediscounted with the reserve bank. *F.R.A.*, 1919, p. 517. According to Willis and Steiner, the reserve bank requires information on advances to other banks from members indebted to it, and includes such loans in the banks' basic lines; and the exception in favor of advances from reserve banks provided in Section 5202 (on limitations of obligations of a national bank for rediscounted paper on direct borrowing) gives the Federal reserve banks discretionary authority in determining how far the member bank may go in obligating itself. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 193, 204. The latter point is very doubtful.

But strangely enough, the reserve banks and the Board had assumed a rather helpful attitude toward correspondents in the early years. Transfers of capital and reserves to the reserve banks were to be effected by transferring cash in vaults whenever possible;¹ the occasion for this request was undoubtedly the desire to avert unnecessary disturbances of the money market. In setting its discount rate, one reserve bank proceeded on the assumption that it was not desirable to compete with correspondents.² Another bank commented on the fact that members found it more convenient to borrow from correspondents;³ and the Board boasted, as the contribution of the reserve banks, that they had been able to obtain better terms for member banks from their correspondents.⁴ In these early years, the obscurity surrounding the whole question of eligible paper further contributed to the relative importance of correspondent banks.⁵

The growth of banking balances in absolute figures was discouragingly rapid in the years 1915-18.⁶ One important explanation of this phenomenon is that the large economies of reserves under the Federal Reserve System, as well as the large accretions of gold, were reflected in surplus resources for which banks sought safe employment, and one result was large deposits with correspondent banks. The reserve authorities now assumed a hostile attitude toward this development and attempted to bring pressure to bear on member banks which persisted in accumulating large balances in the financial centers.⁷ Although bankers' deposits failed to increase at a rapid rate and in truth declined precipitately in 1919-21, reserve authorities continued to be hostile to the practice of maintaining deposits with banks.⁸ In 1923 the Board commented on the fact

¹ *F.R.A.*, 1914, pp. 7, 9.

² *Cleveland R. B. Ann.*, 1915, pp. 234-235.

³ *Boston R. B. Ann.*, 1915, pp. 10, 16-17.

⁴ *F.R.A.*, 1915, p. 11.

⁵ *B.M.*, 1914 (89), pp. 111-112. Sprague pointed out that the existing inter-banking relations made the operation of a central bank difficult in the United States. O. M. W. Sprague, "The Federal Reserve Banking System in Operation," *Quarterly Journal of Economics*, 1916 (30), p. 629.

⁶ "At Banking Peak under Federal Reserve System," *Analyst*, 1918 (11), p. 167.

⁷ *F.R.A.*, 1918, pp. 800-801; *C.F.Chr.*, 1918 (107), p. 125.

⁸ Professor Young studies the movement of "net amount due to banks" for the years 1915-26. The decline in the balances in New York banks was noticeable as early as 1918 while the net amount due to banks, of banks outside New York, continued to increase until early in 1920. The earlier withdrawals from New York are probably to be explained by the requirements of credit in a period of business expansion. The de-

that member banks held 90 per cent of the bank deposits outstanding and that reserve banks provided their correspondents with accommodation although they had no direct contact with them.¹ But by 1925, the Board was prepared to admit defeat. For the first time it frankly acknowledged the existing conditions. "The New York money market is national in scope, and the member banks in New York City, because of the system of correspondent relationship which characterizes American banking, carry balances for interior banks, both members of the Federal Reserve System and non-members, and lend funds received from out-of-town banks in the money market. . . . Changes in the condition of the New York money market, therefore, which are reflected in changes in the volume of funds in New York and in changes in money rates in that market, are national in character and have a definite relationship to changes in credit and banking conditions in all parts of the country."² As has been said, however, inter-bank deposits are not so important to-day as they were before the War, and with the reduced importance of bankers' deposits and the establishment of reserve banks, the large banks in the financial centers have taken less responsibility for the soundness of the general banking situation.³ But that they are still willing to forego pecuniary gain, was amply demonstrated in 1928-29, when they played an important part in the attempt to reduce accommodation to speculators.⁴

When demands for cash have been heavy, the New York banks have generally felt the pressure more than have other banks. Balances were withdrawn in 1916, when income tax payments were large;⁵ in 1917-19, when large transfers on tax and loan account were made to the Treasury;⁶ and in 1919-20, when reserve banks began to apply pressure for liquidation.⁷ The deposits of New York banks declined rapidly as correspondents withdrew balances in

cline in 1920-21 was relatively greater and for a more extended period for banks outside New York, and that result ensued in spite of the fact that the reduction in net amount due to banks of outside banks was held in check by withdrawals by these banks of balances in New York banks. Cf. A. A. Young, *op. cit.*, pp. 62-63.

¹ *F.R.B.*, 1923, pp. 1176-1177.

² *F.R.A.*, 1925, p. 15.

³ In an address of May, 1930, Governor Young commented on the fact that metropolitan banks had lost their former sense of responsibility. *Mim.L.S.*, 1930 (32), x-6585, p. 418

⁴ In Volume II the problem of bankers' deposits in the years 1927-32 is discussed.

⁵ *C.F.Chr.*, 1916 (103), p. 181.

⁶ *F.R.B.*, 1917, p. 920.

⁷ *F.R.A.*, 1920, p. 48.

1919-20.¹ Large banks in New York with important correspondent relations increased their debts with reserve banks and their loans to outside corporations as their correspondents reduced their balances. On the other hand, the *relatively* slow rate of liquidation in the South and West, in 1920-22, is to be attributed in part to the pressure depository banks in New York (reflected in more rapid liquidation of advances by New York banks) put upon their correspondents to repay advances.² The decline in rediscounts in 1920-22 at the reserve banks was much more extreme and precipitate in New York and other financial centers than it was in the West and South.³ An examination of the statistics of bankers' balances and loans by correspondents reveals the fact that the extent to which banks can borrow from correspondents *and* draw on their balances is limited. Depository banks adopt defensive measures when part of working balances are withdrawn and they are likely to force a liquidation of loans.

In the years 1927-31, the fluctuations in bankers' balances at New York have been rather small as compared with those for all reporting member banks.⁴

In 1920-21, *other* borrowings of national banks — that is, bank loans other than from the reserve banks — were at a high level; but even in this period the total for *country* banks, the largest borrowers, was but 20 per cent of their total borrowings.⁵ In the years 1922-26, other borrowings by national banks remained at approximately the same proportion of total borrowings, but of course there was an appreciable absolute reduction, for the total borrowings of banks declined.⁶ The proportion of other borrowings to bank balances is appreciably less than the proportion to total borrowings; that is to say, bankers' balances are in excess of borrowings.⁷ It is rather striking that national banks borrow as much from their correspondents today as in 1915. Watkins' explanation of this phenomenon, the insufficiency of supplies of eligible paper,⁸ is in my opinion inadequate. A bank, here and there, may lack adequate

¹ *C.F.Chr.*, 1920 (111), p. 2182; *ibid.*, 1921 (112), p. 893; *Mo. Rev. of N.Y.R.B.*, November, 1920; *ibid.*, January, 1921; *ibid.*, March, 1921.

² *F.R.B.*, 1922, p. 771.

³ *Ibid.*, p. 1366.

⁴ Cf. Chart XV.

⁵ Calculated from L. L. Watkins, *op. cit.*, p. 175. Cf. Charts XII and XIIIa in the statistical part of this book.

⁶ L. L. Watkins, *op. cit.*, p. 184.

⁷ *Ibid.*, p. 184.

⁸ *Ibid.*, pp. 187-188.

supplies of eligible paper, but the lack would account for but a small part of its indebtedness to banks. More likely explanations are the unwillingness to be in debt to reserve banks, the imposition of tests other than eligibility by reserve banks, the strength of custom, and the pressure by reserve banks for liquidation. Watkins is also impressed by the fact that borrowings from correspondents by non-members were larger, in relation to the magnitude of balances with banks, than in the pre-war period.¹ But this ratio should be used with caution, for it is probable that banks now outside of the System borrowed more heavily in relation to balances in 1913 than did all banks. In other words, one should not compare all banks in 1913 with non-member banks in 1926.²

4. CONCLUSION

Member banks frequently borrow from reserve banks because their correspondents borrow from them or withdraw balances. Reserve authorities have given too much attention to the former and inadequate attention to the latter. The occasion of demands for accommodation from reserve banks traceable to inter-banking relationships, is more frequently the withdrawal of deposits than it is increased advances. If individual depositors withdraw deposits and member banks are compelled to borrow, it will not be said that depositors obtain resources from the reserve banks; similarly the emphasis should not be directed toward the withdrawal of bank deposits, especially since the proportion of inter-bank loans to inter-bank deposits is small compared with the ratio of individual loans and deposits. Reserve banks have objected to the practice of borrowing for the purpose of meeting the requirements of correspondents, both because non-member banks do not contribute to the resources of reserve banks and because they lose the opportunity to exercise direct control when members borrow indirectly; but non-members in truth contribute to the resources of the reserve system. They maintain balances with both members and reserve banks.

Reserve banks have encountered the same difficulties, in attempting to control the indirect use of reserve funds by banks, as they have encountered in attempting to control the use of their funds in general. They have frequently been able to discern a relationship

¹ L. L. Watkins., *op. cit.*, p. 195.

² The history of this question in recent years is discussed in Volume II.

between borrowing in large financial centers and increased dependence on correspondents by outside banks; but it has not been so easy to deduce that individual banks have borrowed to extend accommodation to other banks, even when the statements of all banks point to that conclusion. Moreover, reserve banks usually adopt a fatalistic attitude whenever the occasion of borrowing is the loss of deposits.

Correspondent relations have remained more important than was anticipated in 1913. Reserve officials hesitated to take any action that might loosen the bonds between banks in the early years, and in the war and early post-war years circumstances required cooperation with non-members. A hostile attitude toward the maintenance of large banking deposits has not been successful in preventing a fairly steady increase — with the exception of the years 1919-21 — although the increase has been less than the growth of individual deposits. Inter-bank loans have been relatively unimportant as compared to the volume of advances by reserve banks. In periods of stress, however, inter-bank loans increase to a higher level; and moreover, even in normal times country and non-member banks borrow appreciable amounts of money from other institutions.

CHAPTER XV

MEMBER-BANK BORROWING

I. WHY DO MEMBER BANKS BORROW?¹

AS FAR back as 1919, it was held in official quarters that member banks borrow in order to replenish their reserves, and reserve officials have adhered to that doctrine rather consistently.² When the Reserve Board proposed the use of moral suasion in 1929, it virtually renounced this position. But the New York Bank consistently replied that it was not practicable to withhold accommodation from banks whose investment policies were disapproved, for member banks borrowed to replenish their reserves, and it was not possible to trace the object of a member bank's borrowings.³ Moreover, a member bank borrowed because it had an adverse balance on all its transactions; and the borrower played only a small part in determining the use to which reserve funds were put.⁴

Authorities also have maintained that member banks borrow because they lose deposits,⁵ an argument consistent with the foregoing, for the loss of reserves is the result of the withdrawal of deposits. Governor Strong especially has stressed this point.⁶ It

¹ Consult Charts XVI-XX and discussion on pp. 782-796.

² The object of rediscounts was held to be "general banking advantage or relief for banks which found themselves hard pressed or were suffering from reduction in reserve accounts." *F.R.B.*, 1919, p. 311; *cf. Mim.L.S.*, 1929 (31), x-6381, pp. 125-126.

³ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 47-49; *cf. p.* 177.

⁴ *Ibid.*, pp. 716-718.

⁵ The Joint Commission of Agricultural Inquiry pointed out that one important reason for the increase in borrowing in agricultural counties was the large losses of deposits. *Report*, II, 15, 101-103, 115-117, 133-134. In 1920, Governor Van Zandt attributed excessive rediscounts to the failure of member banks to take into consideration the instability of deposits. *C.F.Chr.*, 1920 (111), p. 2476. (Letter of December 15.)

⁶ B. Strong, *op. cit.*, p. 180. Governor Strong was frequently impressed by the un-stabilizing influence of fluctuations in Government deposits. Reserves were not required against Treasury deposits, and hence their withdrawal would necessitate increased borrowing. Movements in public deposits were a disturbing factor in the years 1917-21. *C.F.Chr.*, 1917 (105), pp. 208-209; *ibid.*, 1919 (109), p. 312; *F.R.B.*, 1920, p. 341; *ibid.*, 1921, pp. 49-62; *Annalist*, 1920 (15), p. 285; *cf. Hearings: Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 573; Secretary of the Treasury, *Annual Report*, 1921, pp. 84-85; *ibid.*, 1922, p. 440. (The Secretary discusses the economy of balances.) The Treasury allowed banks to rediscount eligible paper pledged with the Treasury as security against public deposits when deposits were withdrawn. Treasury Department, *Circular No. 81* (May 29, 1917).

has been pointed out in the *Boston Reserve Bank Monthly Review* that rediscounting increased when deposits were withdrawn, and debts at the reserve bank were liquidated when deposits increased.¹ In the period of speculation in 1927-29, the increase in rediscounting was frequently attributed to the increased proportion of loans to deposits.² The Minneapolis Bank has revealed that the country banks in its district increase their borrowing early in the year when deposits are reduced and reduce borrowings later in the year when crops are sold.³ The need for additional accommodation is especially evident when banks in an extended condition begin to lose deposits. Reserve banks have frequently found it necessary to salvage those in straitened circumstances, and as the latter lose deposits, the reserve bank offers additional accommodation if the member bank can offer satisfactory paper.⁴ Frequently, the reserve bank requires additional collateral to safeguard its position, a request that irritates the remaining creditors; reserve banks are in a peculiarly favorable position compared to other creditors.⁵

A reduction of deposits in itself means little. If the reduction is to be explained by a repayment of a loan or a sale of an investment by the bank, there is no reason for assuming that a loss of cash is involved.⁶ Only if the loss of deposits is in excess of the investments

¹ *Mo. Rev. of Boston R. B.*, May, 1923; *ibid.*, December, 1923; *ibid.*, November, 1926.

² *N.Y.R.B. Ann.*, 1928, pp. 5-14; *Mo. Rev. of N.Y.R.B.*, August, 1928; *Mo. Rev. of Boston R. B.*, June, 1929; *F.R.B.*, 1928, p. 618.

³ L. L. Watkins, *op. cit.*, p. 173. The Board has also commented on the relation of seasonal fluctuations of deposits of country banks and rediscounts. *F.R.B.*, 1928, p. 687.

⁴ Governor Seay, in discussing the problem of bank failures, pointed out that in practically every instance his bank was discounting all the eligible and acceptable paper in the possession of banks in a precarious position. His bank was referred to as the "wrecking crew," but more properly, he suggested, it might be called the "Salvation Army." When checks in large numbers were presented on a bank in doubtful condition, the reserve bank would inquire whether any additional paper for rediscount was available. Richmond Reserve Bank, *Proceedings*, 1925, pp. 18-21. Cf. District Court of United States, Eastern District of Illinois, *J. F. Jarvis et al. vs. Otto Keep et al.* (Brief in Support of Motion to Dismiss.) *Mim.L.S.*, 1928 (29), x-6130, p. 183.

⁵ *Ibid.*, pp. 180-182. Professor Sprague has pointed out the danger of making large advances to member banks, especially to small banks. Other creditors (depositors) receive less than they did before 1914 upon the liquidation of the assets of a failed bank. Reserve banks obtain the most valuable assets, and additional demands for rediscounts arouse the suspicion of many depositors. *Proceedings*, November, 1925, pp. 77-85.

⁶ See the discussion in W. F. Mitchell, *op. cit.*, pp. 61-68. Mitchell finds some correlation, especially by sections of the country, between movements in demand deposits and rediscounts from May to November, 1920. But from November, 1920 to September, 1921, he finds little correlation between rediscounts and deposits by sections of the country. Thus in New York and other reserve cities, there is a large reduction of both

or loans liquidated, does the bank find itself in difficulties.¹ Then the loss of deposits involves a loss of cash, and it may sell an investment, withdraw cash from a correspondent, or borrow from the central bank.² An excessive loss of deposits may be the result of withdrawals of cash by the public and will be reflected in adverse balances at the clearing house or on the clearing books of the reserve banks.

The argument that member banks borrow to replenish reserves or offset losses of deposits is fallible, for a policy of inaction on the part of reserve banks is encouraged.³ They assume the attitude that they lack discretionary power and ought not to refuse accommodation to member banks offering eligible paper.⁴ The assumption is also made that member banks are not responsible for the loss of deposits which drives them to the reserve banks: and within limits, there is some justification for this position. A bank's deposits are many times as large as its cash; officials cannot closely estimate the extent of the withdrawals of deposits; and since the banks hold

deposits and rediscounts. Mitchell here misses the essential point that the influx of gold and currency made possible a reduction of both of these variables.

Pickett, after a careful study of the situation in Iowa in recent years, comes to the conclusion that heavy borrowers did not lose deposits in large amounts; but that banks later in liquidation suffered the largest losses. Also, there were numerous failures (229 in three years) in the years 1920-30 although rediscounts of Iowa banks were reduced from 95 millions in 1920 to 4 millions in 1927 and 2 millions in 1930. R. R. Pickett, *Federal Reserve Bank Policy in Iowa, passim*.

In one year, the banks of South Dakota lost 100 millions (one third) of their deposits, resulting in a large increase in borrowing. Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 197; cf. p. 74.

¹ This problem is discussed more fully in Volume II.

² Painstaking studies of the relation of country banks in the Minneapolis District with their correspondents, particularly in the Twin Cities, have been made. Correspondents are the first to feel the effect of poor crops or seasonal demands for cash; the country bank thus passes on to the city bank the burden of rediscounting. The balances of the country bank give an accurate picture of their monumental deposits. *Mo. Rev. of Minneapolis R. B.*, November, 1920; *ibid.*, January, 1927; *ibid.*, April, 1928; *ibid.*, May, 1929.

³ It may be noted that the Governor of the Board offered as an objection to an increase of membership that non-members would require 346 millions of rediscounts in order to provide reserves and their contributions to the capital of the reserve banks. Hearings: *Inquiry on Membership* (68th Cong.), 1923, pp. 5-6.

⁴ In 1921, the Board seemed to be aware of the danger inherent in this position. The purpose of borrowing was held to be to enable a member bank "to restore its reserve to the legal requirement after the reserve has been impaired or is about to be impaired, because of increased loans and deposits." *F.R.A.*, 1921, p. 5. (Italics mine.)

In 1928, Governor Young and Professor Sprague agreed that member banks borrow to meet a deficiency of reserves and therefore, that eligible paper could not be refused when offered for this purpose. Hearings: *Brokers' Loans* (70: 1), 1928, pp. 58, 67.

virtually no excess of cash, an adverse balance requires a replenishment of reserves even if the banks intend in the immediate future to dispose of part of their open market investments. The point is that a bank may have an adverse balance one day and a favorable balance the next, and on the same day an appreciable proportion of the member banks in financial centers will be forced to borrow.¹ Before 1914, the banks held large surplus reserves against such contingencies.² But their surplus reserves have virtually disappeared, and they have even reduced their till money to an absolute minimum.³ Country banks, and even banks in reserve cities, are better able to estimate their daily cash requirements than are banks in financial centers; and, moreover, since they carry large balances with correspondents and larger tills, they are less inclined to borrow for a few days. Their borrowings have been for seasonal purposes and frequently for long periods of time, especially when their loans have become frozen. Frequently, particular sections of the country have suffered from unfavorable economic events reflected in unfavorable balances, losses of deposits, and continued borrowing.⁴

¹ There have been periods, when, even in the financial centers, a large proportion of all banks were borrowing continuously for a long period of time. The situation was precarious in 1920-21. A comparison of the number of banks in debt in any one month with the number borrowing within the year throws some light on the extent to which banks were borrowing continuously. The conditions in the Chicago District were especially distressing. U. S. House Report No. 408, *Agricultural Inquiry* (67: 1), 1922, II, 52-53. Cf. B. Strong, *op. cit.*, pp. 89-90; U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish the Office of Comptroller of the Currency* (67: 1), 1921, pp. 5, 11; *C.F.Chr.*, 1925 (120), p. 2759.

² In the years preceding the War, reserve city banks held balances not included in reserves in amounts in excess of the amount required to be kept with reserve agents (50 per cent of total reserves); and country banks held surplus balances in amounts in excess of their required reserves with reserve agents. (They held 60 per cent of their legal reserves with reserve agents.) L. L. Watkins, *op. cit.*, pp. 78-79.

³ Reserve banks make it possible for member banks to utilize their resources fully and introduce the required elasticity; but it is considered sound practice for the banks to borrow only for temporary periods, for some banks suffer an adverse balance at the clearing house at one time, and some at another. Temporary losses of deposits do not involve contraction as in the past. It has even been held that advances by the reserve banks to offset unusual movements — gold, currency, withdrawals of loans on the Street — should be repaid within a brief period by an adequate process of liquidation. See especially National City Bank, *Economic Conditions*, September, 1928, pp. 136-137; *ibid.*, August, 1929, p. 109; *ibid.*, December, 1929, p. 179; *Kansas City R. B. Ann.*, 1926, p. 12; *Philadelphia R. B. Ann.*, 1928, p. 16; Richmond Reserve Bank, *Proceedings*, 1926, p. 38; *ibid.*, 1929, p. 43; C. B. Hazlewood, "An Evaluation of American Banking," *American Bankers' Association Journal*, October, 1929, pp. 303-304, 412-413.

⁴ Sprague and Burgess pointed out that in recent years, the most rapid increases in loans and investments have occurred in the eastern and northeastern and the Pacific

This point has been illustrated very well by the Minneapolis Bank, for its country banks have lost deposits for many years, although in the years 1928-30, they have been inclined to sell investments and the like rather than borrow.¹

Correspondent relations play an important part in determining the volume of rediscounts at the reserve banks, although both the withdrawal of deposits and the increased borrowing from correspondents have sometimes been given too much weight.² On the other hand, one need only consult the excellent studies of the Minneapolis banks to realize that there is a high correlation between the loss of deposits of country banks, the withdrawal of balances (and increased borrowing) from correspondents, and rediscounts at the reserve banks.³ New York is peculiarly sensitive to such movements. Currency drains are financed in large part by drawing cash from New York banks, and the large quarterly tax payments are reflected in large withdrawals of cash from New York banks (and losses by the New York Reserve Bank); later, as the deposits of the Treasury in excess of redemptions accumulate in New York, in a reduction of rediscounts; and finally, as the Treasury transfers this cash, in an increase in rediscounts in New York.⁴

The danger of the accepted position (i. e. that member banks borrow because they lose deposits and hence should not be refused) is that member banks are relieved of any responsibility for the loss of deposits, and yet the losses are to be associated with their lending policies. Member banks are now relieved of the need to hold large supplies of cash to meet unfavorable balances, and borrowing at the reserve banks is the substituted method of obtaining cash; while banks outside the financial centers still depend in part on their balances in other banks.

The theory of the relation of fluctuations in deposits and member-

districts, and the western districts suffered a decline. O. M. W. Sprague and W. R. Burgess, "Money and Credit and Their Effects on Business," *Recent Economic Changes*, II, 666.

At this point, I should like to urge the reader to consult Chart II and its discussion. (See pp. 723, et seq.)

¹ *Mo. Rev. of Minneapolis R. B.*, February, 1928; *ibid.*, April, 1929; *ibid.*, March, 1930.

² *F.R.B.*, 1923, p. 25; *ibid.*, 1927, p. 557; *ibid.*, 1929, p. 12; *N.Y.R.B. Ann.*, 1923, p. 8.

³ *Cf. Mo. Rev. of Minneapolis R. B.*, November, 1920, and earlier references.

⁴ *Cf. Mo. Rev. of N.Y.R.B.*, April, 1921; *C.F. Chr.*, 1925 (110), pp. 1038-1039.

Consult Chart II (and pp. 723-726) where the peculiarly sensitive position of the New York Bank is clearly demonstrated.

bank indebtedness may be said to be at the bottom of the theory of open market operations. Sales of securities result in the loss of deposits of member banks at reserve banks, and they then borrow from reserve banks. An increase of indebtedness has a restraining effect on the lending policies of member banks; but the possibility of withdrawing balances from correspondents or borrowing from them is inadequately considered in the formulation of this theory.

Authorities have also held the theory that member banks do not borrow to extend their business or for purposes of profit, an idea readily compatible with that of loss of deposits. In fact, they do borrow to relend at a profit although it is not always easy to discover such violations of the code. Open market rates (not including bankers acceptances although the significant Bank rate on acceptances is not usually a penalty rate), almost throughout the history of the Federal Reserve System, have been above Bank rates, and customers' rates have been far above those of the open market. It is, therefore, misleading to argue that member banks do not borrow to lend at a profit. In fact, they are using reserve funds to extend their business, and even banks in debt but a few days at intervals are using reserve resources for this purpose. When the subject of reserve requirements was under discussion, it was not appreciated that member banks would economize on reserves under the new system in that they would dispense with surplus reserves and depend on reserve banks to meet their temporary deficits. Member banks have obtained concessions not anticipated by Congress in that they have kept less till money than was predicted and have retained virtually no surplus cash. Several billions of investments of member banks are made on the basis of temporary (and to some extent permanent) loans by the reserve banks; for the System as a whole, these temporary loans constitute a permanent advance of appreciable proportions.

2. MEMBER-BANK INDEBTEDNESS AND RESERVE POLICIES

Perhaps the theory playing the most important part in the discussion of the problems relating to member-bank indebtedness has been that which associates the magnitude of member-bank indebtedness with fluctuations in money rates. In a previous chapter it has been said that this theory loses some of its force because, among other reasons, reserve authorities have not always been able to con-

trol the volume of member-bank indebtedness. In 1924 the theory began to attract attention.¹ Riefler has made the most convincing and ablest treatment of this subject in his brilliant book on money rates;² he finds that the agreement of two variables representing multiples of the standard deviations of (1) the magnitude of indebtedness of New York member banks to reserve banks and (2) rates in three open markets in New York, is remarkably close. A similar study for customer rates and indebtedness in New York is not quite so convincing; a large discrepancy in 1923 is explained by the possibility that indebtedness on a national scale rather than in the New York District should be considered. Riefler concludes that the explanation of this correlation is that member banks are not disposed to remain in debt, and when they are forced to borrow, they correct their position by selling open market investments. Their attitude toward borrowing is explained by the hostility of reserve banks to borrowing for other than temporary purposes and the traditions in banking circles against borrowing that have persisted since pre-war days. Riefler gives to this theory a central place in the discussion of the policies of the Federal Reserve System. Thus, reserve banks have been able to control market rates by influencing the volume of member-bank indebtedness. Open market policies acquire significance because reserve banks thus control the volume of indebtedness; and the absence of a close relationship between Bank rates and market rates is not so disconcerting as it otherwise would be.³

Undoubtedly, too much has been made of the point; at the 1931 Hearings, Dr. Miller admitted as much.⁴ In the years 1928 and 1929, the authorities frequently pointed out that market rates rose

¹ The Board said that banks lend more freely when their debts are reduced. *F.R.B.*, 1924, p. 2. The New York Bank compared fluctuations in call money rates with fluctuations in the volume of member bank borrowing. *Mo. Rev. of N.Y.R.B.*, August, 1924, pp. 2-3. The theory was expressed more clearly and convincingly in 1926 in the memorandum of Governor Strong's Open Market Committee. *Mim.L.S.*, 1926 (24), x-4565, pp. 220-225.

² W. W. Riefler, *op. cit.*, especially chapter 2 and pages 70-71. Burgess has also been prominent in the presentation of this point. W. R. Burgess, *op. cit.*, pp. 183-185, 194. *Cf. C.F.Chr.*, 1926 (123), p. 1714. (Address before the American Bankers' Association, September 24.)

³ W. W. Riefler, *op. cit.*, pp. 27-35.

⁴ Hearings: *Operation of Banking Systems* (71:3), 1931, p. 156. But recently Keynes has endorsed the principle and Burgess once more has reaffirmed his faith in it. J. M. Keynes, *op. cit.*, II, 367; W. R. Burgess, "The Money Market in 1928," *Review of Economic Statistics*, 1929, pp. 19-21.

because member-bank indebtedness had increased.¹ But the relation between the two variables has at times perplexed the authorities, and member banks have not always evinced any strong desire to liquidate open market investments merely because they had increased their borrowings. Open market investments increased to a marked extent in a period (1927-29) in which indebtedness increased to an unprecedented level. Banks are more willing to remain in debt when the returns on open market investments increase rapidly.² Moreover, the enforcement of restraint by reserve banks is not easy when the evidence of increased indebtedness is merely an increase in the period during which member banks stay in debt, and a somewhat higher level of debts for banks in debt; and when permanent indebtedness is still not the rule.

There are other reasons in addition to those discussed in an earlier chapter, why too much attention should not be given this point. The relation between the volume of indebtedness and customers' rates in the financial centers is not very close, and elsewhere customers' rates fluctuate only tardily and within a limited radius in relation to market rates in financial centers or the volume of indebtedness in any reserve district or for the country as a whole.³ At most, customers' rates of *banks in debt* should be affected, although to some extent customers' rates are competitive as between banks. A customer may conceivably request accommodation from a competing bank in the same district, or may even request accommodation from banks in other districts when charges are increased by banks heavily in debt. Since customers' rates are relatively inelastic — especially so outside of the financial centers — the pressure of increased indebtedness is likely to be felt largely in reduced purchases of open market investments by member banks. But the effects of liquidation by member banks in open markets are not likely to be great, for increased returns will attract other investors, and hence may also prevent any important liquidation by member banks as a group. Liquidation on a large scale is necessary to correct an unsatisfactory cash position, especially since the pressure is largely restricted to the open market; but the effects on open market values impose a barrier on extensive liquidation. This obstacle to liqui-

¹ *F.R.B.*, 1929, pp. 242, 361.

² Governor Strong suggested in November, 1922 that member banks might prefer to remain in debt when it was profitable to do so. *B. Strong, op. cit.*, p. 181.

³ Consult the discussion of this problem in Volume II where the absence of correlation between money rates and indebtedness in the years 1928-29 is pointed out.

dation may explain the fact that member banks have remained in debt for long periods in financial centers, in spite of their reluctance to remain in debt: they find it easier to stay in debt than to liquidate.

We are likely to forget, moreover, that the public may thwart the efforts of member banks persistent in their attempts to force liquidation in the open markets, for they may lose cash (and deposits) when their customers purchase securities or bills. An *individual* bank may improve its position by selling securities or calling a street loan, but another bank may suffer as its customer is attracted by the higher return. The second bank will not be affected quite so adversely as will a bank that purchases securities on its own account, for it will also lose deposits. The process is likely to result in sales of open market investments to depositors so that the banks obtain some relief from a reduction of deposits (and reserve requirements); but perhaps, later, renewed purchases are made by banks to obtain the higher returns now available. In order to correct their position, member banks as a group would be compelled to sell a volume of investments (mainly open market) to depositors (say) ten times as large as the amount of cash required. To summarize: the banks will be successful in so far as deposits are reduced by the purchase of open market investments by the public; but individual or even groups of banks may be affected adversely by purchases on the part of their depositors. This would be true in so far as they lose cash disproportionate to the reduction of deposits.

It may be appropriate for those who support this doctrine to express the relationship in another manner. In the pre-war days, fluctuations in the surplus reserves of clearing banks were observed with interest by all those who were interested in the state of the money market, for the approach of an exhaustion of the surplus was an announcement of impending restriction. In a similar manner, it might be stated that a large volume of indebtedness is reflected in higher money rates, because member banks cannot continue to borrow from reserve banks indefinitely. Restrictive measures follow large increases in indebtedness, not so much because member banks refuse to stay in debt, but because a large volume of indebtedness is an announcement that large additional resources will not be available. The theory is better presented in this manner, because the higher rates are thus explained by anticipated deficiencies of cash (a market condition) rather than by an attitude of mind which induces restriction.

Reserve banks, in short, have been impressed by the fact that member banks borrow when they lose deposits or when their reserves are reduced below the legal limit; and they have therefore assumed a rather passive attitude toward borrowing by member banks. Undoubtedly, a loss of deposits has frequently been the occasion for rediscounting; but the undue emphasis given to this point has obscured the fact that member banks are not entirely without responsibility for any losses of deposits. The popularity of this explanation of the volume of indebtedness is probably the result of the prominence given to borrowing by member banks in an extended condition or banks in distressed sections which lose deposits, or the loss of deposits by banks in financial centers when outside banks withdraw balances. Another theory supported by reserve officials also requires modification. Individual banks frequently borrow to extend their business; and, more important, the emphasis has been placed on banks borrowing for a few days for the purpose of restoring their reserves instead of on the large volume of reserve credit outstanding continuously even in financial centers. Thus member banks as a whole use reserve resources to extend their business many billions of dollars. The presence of the reserve banks makes it possible for them to lend to the limit of their resources and to rely on the reserve banks to meet any deficiency in their reserve requirements.

The thesis presented by Strong, Burgess, and Riefler on the relation of money rates and member-bank indebtedness, occupies an important place in the policies of the Federal Reserve System. Money rates are undoubtedly affected by fluctuations in the volume of indebtedness, although the relation is less convincing for customers' rates, even in the financial centers. Moreover, the attitude toward indebtedness is affected by the returns to be obtained on the open market, and the continuance of a high volume of indebtedness over relatively long periods of time testify to the difficulties of enforcing an adequate liquidation of open market investments.

INTRODUCTION

A CENTRAL bank may conserve its resources by defining paper that is acceptable so rigidly that the danger of excessive rediscounts cannot arise. European central banks have been aided by definitions of acceptable paper by which they have ruled out a large proportion of the paper potentially rediscountable; and, moreover, they have at times modified their definitions or interpretations according to the changing requirements of the situation.¹

The reserve banks have obtained little support from the Congressional definition of eligible paper in their efforts to exercise control. Nevertheless, Congress paid much attention to the question of eligibility and undoubtedly intended to restrict the volume of eligible paper. But their definition was couched in obscure terms and, both in the course of passage and subsequently, it was broadened as a result of political pressure and alignments. Moreover, no reliable estimates of the volume of different types of paper outstanding were available, and hence even if it were generally known what Congress would include as eligible paper and the manner in which the Board would interpret the legal provisions, no reliable estimate of the volume of eligible paper could have been obtained in 1913. Whatever the intentions of Congress, conditions during the early years of the System were conducive to liberal interpretations of the law. Congress may have favored the creation of a large volume of eligible paper, a volume excessive for purposes of control through eligibility rulings; for undoubtedly one object of introducing eligibility rules was to influence the investment policies of member banks and stimulate the creation of desirable (eligible) types of paper.

¹ In making the following comment, Keynes, it seems to me, underestimates the discretionary authority of the central banks: "Nor has it, in reality, any direct control over the quantity of money; for it is characteristic of modern systems that the central bank is ready to buy for money at a stipulated rate of discount any quantity of securities of certain approved types." J. M. Keynes, *op. cit.*, II, 211.

In *The Macmillan Report*, central banks are warned of the danger of too narrow a restriction of the type of asset purchasable by the central bank. Committee on Finance and Industry, *Report*, Cmd. 3897 (1931), p. 123. In the United States, eligibility rules have not been excessively restrictive although open market operations may be unduly restricted in the future because assets purchasable in the open market by reserve banks are narrowly restricted.

The authorities have been disposed to introduce an element of elasticity into the situation by modifying their definitions in accordance with changing conditions.¹ When it became evident that reserve banks would be unable to conserve their resources by relying on eligibility rules that had been framed in a liberal and rather improvident manner, the authorities introduced a distinction between eligibility and goodness, or acceptability. The Board's task was to publish definitions of eligible paper that were consistent with the law:² reserve banks might "discount notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of the Act." The Board's early rulings were intended to inform reserve banks of the manner in which they could assure themselves that rediscounts were legal; and the rulings were rather general although many specific rulings were made. The Board was satisfied with the information that the borrower had an adequate excess of quick assets over quick liabilities.³ Reserve banks, therefore, from the beginning, retained a considerable amount of discretion, for even if it were revealed by the note or other information that the proceeds were to be used in the accepted manner, the reserve banks might find it necessary to inquire whether the investment was safe. This information might not be obtained from a statement which was held to reveal

¹ Willis and Steiner contend that reserve officials have given up their leadership in recent years and are now content with rough tests. H. P. Willis and W. H. Steiner, *op. cit.*, p. 148.

² Counsel for the Chicago Bank said that in *United States vs. Clark*, the court ruled that although a legislature cannot delegate its powers to make a law, it can make a law to delegate a power to determine some fact or state of things upon which the law makes or intends to make its own action depend. C. L. Powell, "Eligibility for Discount," *Annals*, 1922 (99), p. 105.

³ Occasionally the Board has supplemented this general ruling. In 1915, the Board was specific on the meaning of the current ratio test as applied to cotton mills; in 1921, it ruled in the liberal manner required by the conditions, that if a statement failed to reveal an excess of quick assets, reserve banks might use other evidence that the proceeds were not used for a fixed or permanent investment. On another occasion, the Board ruled that standing timber and ores were not to be considered as quick assets. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 153, 207. Mitchell is critical of the Board for going beyond the test of the use of proceeds in declaring tractor paper eligible and the motor paper of a transportation company ineligible. W. F. Mitchell, *op. cit.*, pp. 130-131.

the use of the proceeds. The transition to the point where reserve banks might refuse paper on grounds of credit policy, protection of resources, and so on, was easy, and they received support from the Board, which was not disposed to make any rulings on this general subject.

The theory of the eligibility provisions in Section 13 is that the criterion of acceptability is to be the type of transaction which the paper represents, not the security offered. Reserve authorities have not always adhered to this interpretation.¹ The increased popularity of the rediscount of notes collateralized by securities has led to a greater emphasis on security and less attention to the specific transaction. The prevalence of this type of advance puts a premium on discrimination according to the amount of accommodation received from reserve banks or according to the use made of reserve facilities by member banks. In recent years, reserve banks have become more interested in the condition of the member banks, which in itself reflects the loss of interest in the specific transaction and increased emphasis on methods of control other than eligibility rules. It might be contended that Congress intended that the condition of the member banks should be considered, for their endorsement is required. When the reserve bank finds that the endorsement of the member bank is of little value, additional collateral is demanded.² The increased attention paid to the exercise of discretion by reserve banks, the tendency to liberalize eligibility rules and to pay some attention to security offered and the condition of member banks, all point to the conclusion that eligibility provisions, both legal and administrative, have not been a restraining factor; nor have they influenced in any important sense the investment policies of member banks.

¹ Reserve banks frankly admit that the security offered rather than the test of eligibility may be the decisive factor. Westerfield objects to the practice on the part of reserve banks of demanding excess collateral, on the grounds that inferior paper is thus accepted. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 709-720. R. B. Westerfield, "Marginal Collateral to Discounts at the Federal Reserve Banks," *American Economic Review*, 1932, pp. 53-55.

² Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 712-715.

CHAPTER XVI

LIMITED SIGNIFICANCE OF ELIGIBILITY RULES

I. EARLY CONCESSIONS

THE Organization Committee anticipated the attitude of the Board when it pointed out that authorities would not be able to ascertain whether funds advanced by the reserve bank on rediscounted paper had been used in the manner prescribed, and hence that the reserve banks would have to be satisfied with rough tests of eligibility.¹ A committee of the New York Clearing House distinguished two types of notes, one made by the merchant or manufacturer for procuring funds to be used in payment of goods intended for resale, and the other a note drawn *on* the merchant or manufacturer representing the purchase price of goods; the committee would limit the responsibility of the member bank to ascertaining whether the note conformed to either one of the two types.² In the by-laws suggested to the Board by an official committee, it was also recommended that the authorities be satisfied with proof that the borrower had used part of his resources for the purposes indicated; for the absolute assurance of the manner of use of money advanced on rediscounted paper could not be obtained.³ A committee of reserve bank officials proposed a liberal and broad definition, but recognized the responsibility to influence the manner of conducting business and banking, and hence was not satisfied merely to assure the safety of the investment.⁴

In general, the Board followed the recommendations of the Organization Committee and that of reserve officials. A written statement by the officer of the member bank was required to certify that the proceeds had been or were to be used for legitimate purposes; and the member bank was to prepare credit files with full information about borrowers.⁵ Liberal interpretations were deemed necessary, and the Board therefore waived a discussion of the relative

¹ Preliminary Committee on Organization, *Report*, p. 77.

² *C.F.Chr.*, 1914 (98), p. 729.

³ *F.R.A.*, 1914, pp. 152-153.

⁴ *Ibid.*, p. 172.

⁵ *Ibid.*, 1914, p. 60.

merits of one- and two-name paper. The Board suggested that reserve banks rediscount only if they were reasonably sure of collection;¹ but the ascertainment of that fact might require no more effort than a study of the quick assets and liabilities of the borrower. For the Board, the important problem was to exclude paper used for speculative or capital purposes.² Governor Strong made a statement in November, 1914, in which he emphasized the need of information concerning the borrower if the recommendation of the official of the member bank was to carry any weight; and he added that the reserve bank could not inform itself of the object of the borrowing.³

When the time came for demanding statements of the condition of borrowers, the Board made concessions. The result was that the reserve banks for the time being accepted the statement of member banks that paper is eligible under the Act and regulations of the Board.⁴ Early in 1915, it was merely *recommended* that every member bank maintain a file of statements of the financial condition of borrowers, and the statement was not required under certain conditions.⁵ The 1916 regulations provided for financial statements at

¹ *Ibid.*, pp. 182-183.

² "The language used in the section of the Federal Reserve Act with reference to commercial paper is modeled upon language used in many proposals of legislation which preceded the Reserve Act and whose purpose was that of sufficiently limiting the types of paper presented for rediscount so as to avoid the use of bank funds in two general classes of transactions." *Ibid.*, p. 151; cf. *ibid.*, p. 9. Compare Keynes' comments on the Financial and Industrial Circulation. J. M. Keynes, *op. cit.*, II, 347-348.

³ *C.F.Chr.*, 1914 (99), p. 1565.

⁴ *F.R.A.*, 1918, pp. 768-770; *C.F.Chr.*, 1915 (100), pp. 183, 443; *N.Y.R.B. Ann.*, 1915, pp. 16-17. Willis regrets that the protests of 1914-15 resulted in lower standards of rediscounting. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 179-180 and H. P. Willis, *op. cit.*, chapter 42.

⁵ *F.R.B.*, 1915, pp. 37-38. Recent regulations (Series of 1928) require a statement when the borrower (depositor) is in debt to the member bank in excess of \$5,000 and the reserve bank may require a statement if the indebtedness is less than \$5,000. *Digest of Rulings of the Federal Reserve Board, 1914-1927*, p. 131. In 1927, several reserve banks objected to the requirement of a statement when the debt of the borrower was but \$500 or \$1,000. *Mim.L.S.*, 1927 (26), X-4830a, p. 226; *ibid.*, 1927 (27), X-4915, pp. 80-81.

The extent to which reserve banks have relied on statements is not clear. In 1918 a Federal Reserve Agent proposed that the monetary stringency offered an excellent opportunity to require statements. In reply, the Board inquired of reserve banks whether any elaborations of statements would reveal the purpose for which money was borrowed. *Mim.L.S.*, 1918, X-1075, July 19. The governors reported in 1919 that they considered both the standing and condition of member banks and the value and quality of the paper discounted. *Mim.L.S.*, 1919 (10), X-1459, p. 193. In 1923, there was some discussion of the possibility of obtaining uniform procedure where statements

the discretion of the bank when the note was purchased from a depositor.¹

That the Board yielded to the demands of member banks at this early stage is an indication of the attitude of reserve banks concerning their place in the financial community. They feared that they might not exercise adequate influence and were anxious to do business. An excess of current assets over liabilities was considered sufficient evidence of the proper use of the reserve bank's funds;² and even so much information was frequently not required. The acceptance of single-name paper on almost equal terms with double-name paper was also symptomatic of inflationist or expansionist tendencies, and foreshadowed the unimportant place that eligibility rules were to occupy in control.

2. LIBERALIZATION OF ELIGIBILITY RULES

In 1915 the tendency was to interpret eligibility rules in a liberal manner. In one of its circulars, the New York Bank announced that if the statement indicated a liquid condition *or* if proceeds had been or were to be used for a legitimate purpose, the paper was eligible.³ It is thus evident that the requirement of a financial statement was not in effect. According to the Board, the object of its regulations was to assure the movement of crops and to facilitate the exports of commodities.⁴

Increased demands for accommodation in the latter part of 1916 brought the first restrictive interpretations. It was necessary to distinguish commercial from investment banking; acceptances, it was realized, should not be drawn to finance the banks; precautions against renewal drafts at a fixed rate of interest were deemed necessary.⁵ The Board was under severe pressure to permit reserve banks revealed that the rediscount of paper was of doubtful legality. *Mim.L.S.*, 1921 (14), x-3086a, p. 375.

Reserve banks in general require financial statements when advances above a stipulated sum are involved; but if adequate security is available, they are less insistent; and the endorsement of the member bank is an important consideration. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 709-711.

¹ *F.R.B.*, 1916, p. 531.

² O. M. W. Sprague, "The Federal Reserve Banking System in Operation," *Quarterly Journal of Economics*, 1916 (30), pp. 642-643. *F.R.B.*, 1917, p. 527.

³ *C.F.Chr.*, 1915 (101), p. 96.

⁴ *F.R.A.*, 1915, p. 3.

⁵ *C.F.Chr.*, 1916 (103), pp. 1649-1650; cf. *F.R.A.*, 1918, p. 816. The danger of purchasing dollar exchange bills was admitted by its sponsor, Warburg: they were not

to discount paper which was to be renewed periodically for a term of years, thus providing funds which ought to be supplied by the capital market.¹ In 1918 the subject was fully discussed at the Hearings for the creation of a War Finance Corporation. There was marked sentiment in favor of a liberalization of eligibility laws so that notes collateralized by sound securities and paper arising out of transactions essential for the prosecution of the War might be eligible.² The War Department was seriously considering the possibility of calling on the Federal Reserve Board for assistance when the Appropriation Bill (Third Deficiency) failed of enactment, and the Railroad Administration was about to issue 300 millions of trade acceptances to finance current purchases, which Governor Harding declared eligible for rediscount.³ (Similar pressure was exerted in 1931-32. Provision was made for the rediscount of all good paper, whether eligible or not, by the reserve banks or the Reconstruction Finance Corporation.⁴ Previously, all eligible paper was not acceptable; now all acceptable [good] paper is made eligible.)

In 1919-20, the tendency was to restrict the definitions of eligible paper and to rely more on the use of discretion by reserve banks; this fact will be apparent in later discussions of acceptances and the limitations of control through eligibility regulations. In later years,

easily distinguishable from finance bills. But Warburg would rely on the administrative genius of the Board. U. S. House Report No. 447, *Amending Federal Reserve Act* (64: 1), 1916, p. 11.

¹ "These conditions are reflected in the requests which the Board has for some time past been receiving from many quarters that the rediscount privilege be extended to paper of a character and form which had never been regarded as eligible. Perhaps the most urgent appeal of this kind has been that the Board permit Federal reserve banks to discount notes which have been placed upon the market under an agreement between the borrowers and their bankers, providing for a considerable number of successive renewals, the advances having been made to the borrowers for a definite term of years. . . . Other propositions of a somewhat similar character were submitted to the Board for consideration, and their significance is that there is pressure on the part of commercial and manufacturing enterprises to gain access to the rediscount facilities of the Federal reserve banks and use the System to supply funds, which, properly or in normal circumstances, should be provided by the securities market." *F.R.A.*, 1917, p. 19.

² U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, pp. 38-39; U. S. House Ways and Means Committee, Hearings: *War Finance Corporation* (65: 2), 1918, pp. 3-8, 23-26, 73, 108-110.

³ *Proceedings*, March, 1919, pp. 22-25.

⁴ *F.R.B.*, 1932, pp. 141-142; Public-No. 2-72d Congress [H.R. 7360], the Reconstruction Finance Corporation Act; Public-No. 44-72d Congress [H.R. 9203] the Glass-Steagall Act. Cf. U. S. House Reports Nos. 36, 243, 475; U. S. Senate Reports Nos. 33, 237, 493 for a history of the legislation.

authorities once more began to interpret the statute in a liberal manner, with the result that eligibility rulings have been diminishingly effective in restraining the use of reserve facilities.¹

The tendencies since 1921 are also revealed by a consideration of the legislative changes in the eligibility laws enacted in the years following deflation and by the attitude of the Board toward these provisions.

Section 13 of the War Finance Corporation Bill authorized reserve banks to rediscount eligible paper secured by bonds of the War Finance Corporation; this provision did not enlarge the discount powers of the Federal reserve banks, since they were already authorized by Section 13 of the Act to discount eligible paper irrespective of the use or character of the security. An amendment of August, 1921, however, authorized the discount of paper secured by such bonds, which otherwise might not have been eligible.² The Agricultural Credits Act had the support of the Board although it provided for longer term paper and made eligible sight drafts and paper that had previously been considered finance paper.³ The Board had, however, objected to the dumping of Farm Loan bonds on the reserve banks.⁴

¹ The changing attitude of the reserve authorities is revealed clearly by the history of their interpretation of the phrase, orderly marketing. As early as 1915, orderly marketing was distinguished from speculative holding of commodities. *C.F.Chr.*, 1915 (101), p. 571. By 1919, the contest with the agricultural sections became intense, and the reserve authorities objected to the use of reserve funds, directly or indirectly, for speculative purposes, in particular, for the purpose of holding commodities, or for the valorization of important crops. *Mim.L.S.*, 1919 (11), x-1729, p. 893; *F.R.B.*, 1919, p. 1109; *F.R.A.*, 1920, p. 12; W. P. G. Harding, *The Functions and Policies of the Federal Reserve System*, p. 12. By 1922, a change in attitude was clearly revealed. The Board now ruled that borrowers were entitled to accommodation for the purpose of carrying crops: it is reasonably necessary in order to effect orderly marketing. *Mim.L.S.* 1922 (17), p. 906; cf. *ibid.*, 1923 (19), x-3772, p. 550; *ibid.*, x-3767, p. 527. The Board established the principle that paper drawn to carry agricultural products pending orderly marketing constituted agricultural paper.

² *Mim.L.S.*, 1924 (20), x-3972a, p. 112.

³ U. S. Senate Banking and Currency Committee, Hearings: *Rural Credits* (67: 4), 1923, pp. 102-103, 370-373; also see address of Mitchell of the Board on "What the Federal Reserve System Has Done for the Farmer," *Mim.L.S.*, 1923 (18), x-3642, pp. 149-154.

⁴ Hearings: *Sale of Farm Loan Bonds* (67: 1), 1921, pp. 3-4, 8-9, 21-24; also *Mim.L.S.*, 1923 (18), x-3607b, p. 53. (In July, 1922, the Board was still opposed to the extension of the term of eligible bills to nine months.) Mitchell points out that the 1922 acceptance regulations provided that reserve banks might purchase bankers' acceptances drawn by a marketing association to finance its members if membership were restricted to growers of agricultural products; and the Agricultural Credits Act carried this principle further. W. F. Mitchell, *op. cit.*, p. 128.

The long discussion of the eligibility of finance paper throws some light on the evolution of the attitude of the Board. At an early date the authorities had ruled that a bank could not borrow on a note which represented an advance to another bank.¹ According to Harrison, once counsel of the Board and now Governor of the New York Bank, the amendment which provided for loans on banks' notes collateralized by eligible paper, was a recognition of the fact that legislation was necessary to make notes eligible when the proceeds were not used in the *first instance* for one of the approved purposes, regardless of the security.²

In the latter part of 1920, the question arose ominously in relation to the paper of cotton factors.³ The Board had ruled that their paper was ineligible on the grounds that the proceeds were not used in the first instance for agricultural or commercial purposes: the test of eligibility was not the character of the business of the borrower but the use to which the proceeds were put.⁴ The Board had even ruled out factors' paper secured by crops. It is evident that at least one reserve bank disregarded the rulings of the Board, and although interested senators were warned that a reversal of the ruling by the Board would not assure the acceptance of such paper by the reserve banks, two of them gave assurance that the reserve banks would accept it.⁵ Congressional pressure was also expressed in a conference between counsel of the Board and several senators who contended that they had been responsible for the contested provision and therefore were aware of the implications of the provision; they brought pressure to bear on the counsel.⁶ Harrison, counsel of the Board, maintained that paper secured by agricultural crops was not eligible by virtue of that fact, and that the insertion of the word *such* before the description of that paper had been made in order to

¹ *Proceedings*, October, 1920, II, 353. Powell, counsel of the Chicago Bank, contended that the requirement that proceeds be used *in the first instance* for a commercial purpose, was introduced so that there will automatically come into existence a fund available to liquidate each piece of paper. C. L. Powell, *op. cit.*, p. 109.

² *Proceedings*, October, 1920, II, 354.

³ Cotton factors advance money on open account to farmers which they draw as required. The only guarantee offered by the factors was that their aggregate advances would not be in excess of the aggregate values of the crop. Senator Hoke Smith contended that the main object of the factors' advances was the marketing of the crops; and he was supported by Hamlin of the Board. *Ibid.*, pp. 278-282, 310-311, 372.

⁴ *F.R.B.*, 1920, pp. 1176-1177.

⁵ *Proceedings*, October, 1920, II, 294-295, 298-299.

⁶ *Ibid.*, pp. 296-297.

relate the paper secured by crops to the requirements in the previous part of the sentence. The provision as a whole required that the proceeds be used for agricultural or commercial purposes.¹ It was also contended that a relaxation of this ruling would compel reserve banks to rediscount all kinds of finance paper² and that rulings by several reserve banks on commission paper were irrelevant, for the commission agent had full right to the property and financed his own goods.³ Moreover, it was held that a change in method of finance would provide the farmer with the necessary credit. The factor could take the farmers' note to the bank, or the farmer might draw on the factor and present the note himself.⁴

In considering the eligibility of paper of a tobacco growers' cooperative association, the Board in the middle of 1922 made an almost complete *volte-face*. Governor Seay of the Richmond Reserve Bank had apparently expressed some doubt concerning the eligibility of the association's paper. The Board replied *now* that this paper might be regarded as payment for the purchase price of tobacco and therefore might be eligible.⁵ The contract between the farmer and the association was *now* held to be a sales agreement rather than a consignment, on the grounds that, since factors' paper was now under consideration, the transaction ought to be considered

¹ According to Harrison, an unnamed congressman had introduced the word *such* before *paper* in order to assure the consideration of the particular provision in connection with what preceded. The congressman frankly admitted that many did not realize the significance of the word *such*. *Proceedings*, October, 1920, II, 355-357; H. P. Willis and W. H. Steiner, *op. cit.*, p. 156. "... that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of this Act. Nothing in this Act contained shall be construed to prohibit *such* notes, drafts, and bills of exchange secured by staple agricultural products, or other goods, wares or merchandise from being eligible for such discount. . . ." *Digest of Rulings of the Federal Reserve Board, 1914-1927*, pp. 562-563.

² Finance companies contend that their paper is at least as acceptable as the paper of banks. *Petition to the Federal Reserve Board of National Association of Finance Companies* (October, 1931), pp. 3-9.

³ *Proceedings*, October, 1920, II, 300-301, 307-308, 369-372.

⁴ In December, 1920, the Board seemed to be in a more conciliatory mood and made these suggestions as a way out without declaring finance paper eligible. U. S. Senate Banking and Currency Committee, Hearings: *Amending the Federal Reserve Act* (66: 3), 1921, pp. 30-31.

⁵ *Mim.L.S.*, 1922 (17), x-3474a, p. 904. This was inconsistent with earlier rulings in which it was held that notes of cold-storage companies were ineligible if they lent the proceeds to customers even though the note were secured by eligible notes of customers and warehouse receipts. But the customers' notes might be eligible. Cf. H. P. Willis and W. H. Steiner, *op. cit.*, p. 157.

from the viewpoint of the factor. Contrary to previous rulings, it was held that the factor's paper might even be considered agricultural paper; it had previously been maintained that a payment for commodities was a commercial transaction. The Board *now* held that a transaction was sometimes considered from the viewpoint of the seller; thus a sale of an automobile might be represented by eligible paper if presented by the seller.¹ To Governor Seay's contention that paper drawn by the farmer on the association was used to repay the proceeds of the farmer's loans, the Board replied that this paper enabled the farmer to carry his crop.² The Board also pointed out that as a matter of law, drafts drawn by the grower on the association would be eligible regardless of the use of the proceeds; but as a matter of regulation, some additional stipulations were necessary: orderly marketing and the use of the advances for general purposes by the grower were suggested as tests.³

Dissatisfaction with the Board's attitude in 1920, as well as its change of attitude, resulted in the incorporation in the Agricultural Credits Act of provisions making eligible (1) paper drawn by cooperative marketing associations if proceeds had been or were to be advanced for agricultural purposes, and (2) paper of factors who made advances exclusively to producers of staple agricultural products in their raw state.⁴ Not only was the Board in favor of the principles announced in the Agricultural Credits Act, but it proclaimed its adherence now to the principle that paper created for the purpose of marketing agricultural products or carrying of agricultural products by growers pending orderly marketing, was eligible.⁵

¹ *Mim.L.S.*, 1922 (17), X-3474a, p. 905; *ibid.*, X-3474b, pp. 909-911. In general, it has been held that the purchase or sale of goods is a commercial transaction from the viewpoint of the seller and a note of the buyer to seller in payment is a note issued for commercial purposes regardless of the use to which funds are put. Also, a note for the purchase of articles intended for resale is a note issued for a commercial purpose although the article is one that represents a permanent investment for the ultimate purchaser; but the eligibility of a note of the farmer for the purchase of goods is determined by the nature of the goods. It has been pointed out that an anomalous situation arises in that paper may be declared eligible merely because it arises from an actual transaction: the fact that the advance is made to the purchaser and he furnishes the source of liquidating power is ignored. C. L. Powell, *op. cit.*, pp. 105-109; E. A. Goldenweiser, *The Federal Reserve System in Operation*, pp. 150-151; H. P. Willis and W. H. Steiner, *op. cit.*, p. 155.

² *Mim.L.S.*, 1922 (17), X-3474a, pp. 906-907.

³ *Ibid.*, X-3474b, pp. 911-912.

⁴ *F.R.B.*, 1923, pp. 429-431; San Francisco Federal Reserve Bank, *Circular*, No. 32, March 1, 1924.

⁵ U. S. Senate Banking and Currency Committee, *Hearings: Rural Credits* (67: 4), 1923, p. 372; *Mim.L.S.*, 1923 (19), X-3767, p. 527.

Moreover, the Board interpreted liberally the phrases *exclusively to producers of staple agricultural products* and in the *raw state*.¹

The reserve authorities displayed similar anxiety to liberalize their rulings in their efforts to bring the paper of Hanna and Company within the range of eligible paper.² The Board, however, continued to object to the inclusion of ordinary finance paper. Thus paper drawn by Federal Intermediate Credit Banks was ruled out on the grounds that these banks used the proceeds to lend to others, and the same attitude has been taken toward *instalment* paper.³

A word may be said concerning the problem of the limitations put upon rediscounts of paper of any one name. Such limitations are in vogue and tend to reduce the amount of eligible paper. Exceptions to the 10 per cent limit are more numerous than they were in 1914, however, and the tendency has been to liberalize the law especially for the benefit of state banks.⁴

3. BANKERS' ACCEPTANCES

Officials of the Federal Reserve System have revealed their policy more clearly by their rulings on acceptances than by rulings on other types of paper; for the Board exercises a greater discretionary authority over acceptances. Changes in policy have been more frequent and more fundamental, by virtue of the fact that the re-

¹ *Mim.L.S.*, 1923 (19), x-3767, p. 529; *ibid.*, 1926 (24), x-4559, p. 206.

² Several reserve banks had at first declared notes of corporations representing advances to subsidiaries ineligible. Authorities attempted to cope with this problem by declaring such notes eligible, if they were otherwise eligible and if the subsidiary borrowed wholly from the parent corporation and vice versa. But the Hanna Corporation made some advances to concerns in which it held only a minority interest. The Board finally solved this problem by ruling that reserve banks *might* consider such paper eligible if the two concerns are in effect one concern and the paper complies with the law and regulations in other respects. Thus no opportunity was offered to finance companies. For a history of this interesting controversy see *ibid.*, 1925 (23), x-4484, pp. 296-297; *ibid.*, 1926 (24), x-4560a, pp. 209-211; *ibid.*, 1926 (25), x-4692, p. 168; *ibid.*, 1927 (26), x-4776, pp. 67-68; *Proceedings*, November, 1926, pp. 34-42.

³ *Mim.L.S.*, 1926 (24), x-4568, pp. 241-242; *cf. C.F.Chr.*, 1928 (127), p. 3034. The Board also declared ineligible the notes of a cold-storage and warehouse company on the grounds that its main business was to finance other enterprises. An excess of current assets was held to be evidence of a liquid condition but not of the proper use of the proceeds of a bank loan. *Mim.L.S.*, 1926 (25), x-4654a, pp. 84-85.

⁴ U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64:1), 1916, p. 68; U. S. House Report No. 35: *Amendments to Federal Reserve Act* (H.R. 3673), p. 12; Public-No. 25-65th Congress [H. R. 3673], p. 7; Public-No. 33-66th Congress, 1921; Public-No. 279-67th Congress, 1922; Public-No. 120-71st Congress [H. R. 9046], 1930; House Report No. 753 (71:2), pp. 1-3.

serve banks have been the final resting place for a very large proportion of the acceptances created. Liberal rulings were promulgated both for the creation of acceptances and for their purchase and rediscount whenever the reserve banks were anxious to do business or stimulate expansion as a result of outside pressure.¹ In the first year or two the Board hesitated, however, for officials had been impressed by the possibility of grave abuses.² But by the latter part of 1915, the Board began to liberalize its rulings somewhat.³ America's participation in the War required concessions especially in relation to renewal credits.

Yet the Board began to express concern over the abuse of the acceptance privilege as early as 1916. Governor Harding criticized the practice of creating acceptances to finance a bank which had previously made an advance to the drawer; and he pointed out the disadvantages of renewal drafts especially when the renewal rate was determined at the outset.⁴ In its *Annual Report* for 1916, the Board once more referred to the danger to business of excessive creations of acceptances.⁵ In 1918 the Board began to rely on the discretionary authority of the reserve banks when confronted with acceptances that were technically eligible but not desirable as investments.⁶ The necessities of war compelled the authorities, however, to make many concessions, particularly in relation to renewal acceptances.⁷

In official communications to the reserve banks, the Board early in 1919 revealed its doubts concerning the usage of acceptance credits.⁸ Counsel expressed the opinion that it was not the intention

¹ H. P. Willis and W. H. Steiner, *op. cit.*, pp. 466-471. ² *F.R.B.*, 1915, p. 44.

³ U. S. Senate Banking and Currency Committee, Hearings, *Amendments to Federal Reserve Act* (64: 1), 1916, p. 68; *C.F.Chr.*, 1915 (101), p. 887; *F.R.B.*, 1917, p. 878.

⁴ *C.F.Chr.*, 1916 (103), p. 1650.

⁵ "The Board has, however, consistently pursued a policy of protecting the acceptance market and the Federal reserve banks from the possibility of an overgrowth of acceptances which, while technically within the law, might, owing to their intrinsic character and to agreements providing for a renewal of the credits over a considerable period, tend to obscure evidence of the commercial basis of the underlying transaction." *F.R.A.*, 1916, pp. 4-5.

⁶ *F.R.B.*, 1918, pp. 30, 808; *ibid.*, 1919, pp. 255-256.

⁷ *Ibid.*, 1918, pp. 255-260; *C.F.Chr.*, 1918 (106), p. 1079. (New York Federal Reserve Bank, *Circular*, No. 97.)

⁸ The Board inquired to what extent reserve banks were making adequate investigations of the eligibility of acceptances. *Mim.L.S.*, 1919, X-1390a. (Suggested topics for Governors' Conference of March, 1919.) The governors criticized banks and others for employing acceptance credits in order to lend on commodities. *Ibid.*, 1919 (10), X-1459, p. 191.

of Congress to allow the use of foreign acceptances for the purpose of enabling domestic concerns to extend credit on open accounts to foreign purchasers.¹ Reserve banks ought, it was argued, to investigate the circumstances under which acceptances were granted.² But the Board merely expressed a very mild disapproval of renewal credits for Belgium.³

By 1920 the Board was better prepared to grapple with the problem of renewal credits and the whole problem of acceptance credits.⁴ In the first half of that year was prepared a questionnaire on acceptance credits in which several of the more vexing questions on the abuse of acceptance policies were raised.⁵ On the problem of domicile bills — that is, bills payable in dollars in New York but accepted by foreign banks — the Board relied on the exercise of discretion on the part of reserve banks.⁶ At the May, 1920, Conference, Governor Harding inquired whether acceptance credits were self-liquidating or whether they were converted into fixed loans at maturity.⁷ And early in 1921 came the request to suspend the liberal terms under which dealers engaged in the export and domestic sale of the same class of goods were allowed to draw acceptances.⁸

Authorities were also disturbed by the abuses that were prevalent in the use of domestic acceptances.⁹ The Board refrained from

¹ *F.R.B.*, 1919, p. 254.

² *Ibid.*, pp. 255-256.

³ *Ibid.*, p. 309.

⁴ *F.R.A.*, 1919, p. 22; *Mim.L.S.*, 1920 (12), X-1873a, p. 247. The Board put the following questions to the reserve banks: Are acceptances created for purposes not contemplated by the Act? Are accepting banks abusing the privilege? How can abuses of the privilege of issue against warehouse receipts be prevented? The reply of the governors was an offer to cooperate in a revision of the 1917 regulations and a suggestion that the underlying transaction be identified in the most specific manner possible. *Ibid.*, X-1906, p. 494.

⁵ The Board raised questions concerning the liquidity of acceptances, their inflationary effects, their contributions to our trade, the necessity of securing acceptance credits, and the like. *Ibid.*, X-1913, pp. 374-377.

⁶ *F.R.B.*, 1920, p. 386.

⁷ U. S. Senate Document No. 310 (67: 4), 1923, pp. 56-57.

⁸ *F.R.B.*, 1921, p. 70; *Mim.L.S.*, 1920 (13), X-2044, pp. 1012-1013. The Board revised the 1918 ruling at several points. Thus, the contract now was to be made for a reasonable and specified time and for a specified amount; the total acceptance credits at any one time were not to be in excess of the volume of export transactions — the earlier draft had provided that the total was not to be in excess of the volume of both export and import transactions. In the earlier draft, the dealer was to pay the acceptance out of the proceeds of the sale or secure the acceptance by shipping documents; now he was required to comply with both of these requirements.

⁹ Hearings: *Sale of Farm Loan Bonds* (67: 1), 1921, p. 30; *Mim.L.S.*, 1919 (10), X-1405, p. 101.

encouraging their purchase or rediscount if warehouse receipts had been released. The Governors' Conference of April, 1920, recommended that banks granting credit secured by warehouse receipts should limit the amount of credit thus extended to one name and on one commodity, should restrict the credit term to commercial and seasonal usance, and should secure the credit and acceptance during the life of the credit.¹ Later in 1920, the Board objected to the proposal that a refiner of cotton seed be allowed to draw a 90-day draft on his bank, the bill of lading to be attached to the draft at time of acceptance but to be withdrawn immediately thereafter. Although the refining process required 90 days, the Board contended that the proceeds must clearly be used for the payment of goods and that an advance for 90 days was a contribution to the capital of the refiner rather than a payment to finance the shipment of goods.² More recently, the Board has reversed this ruling; conditions called for more liberal interpretations.³

Thus did authorities attempt to prevent abuses by making suggestions or issuing regulations on the conditions under which reserve banks might purchase or rediscount acceptances. In 1915 it was announced that the endorsement of a member bank was not required invariably;⁴ but such acceptances should be purchased in limited quantities.⁵ Later in the year, the Board announced that reserve banks were to demand a statement from the endorser of such acceptances.⁶ Several additional safeguards were introduced in 1916.⁷ Statements of both drawer and acceptor were requested when member banks had not endorsed the acceptances, and restrictions were placed on the volume of purchases; similar safeguards were introduced for domestic acceptances. Special restrictions were placed on the purchases of bills accepted by others than

¹ *Ibid.*, 1920 (12), X-1906, p. 494.

² *Ibid.*, 1920 (13), X-2068, pp. 1074-1075; cf. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 477-478.

³ *Mim.L.S.*, 1929 (31), X-6414, p. 208. A New York City firm purchased cotton staples from a seller in the West. The purchaser drew a 90-day bill on his bank which already had possession of the bills of lading covering staples in process of shipment. Although the shipment required but a few days, the Board now ruled that the bill was eligible if the maturity were consistent with the usual and customary credit time prevailing in the business.

⁴ Willis and Steiner contend that the actual connection between the acceptance and the transaction involving a sale and shipment of goods should be the test of the use of proceeds. H. P. Willis and W. H. Steiner, *op. cit.*, *passim*.

⁵ *F.R.B.*, 1915, p. 44.

⁶ *Ibid.*, p. 311.

⁷ *Ibid.*, 1916, pp. 15-16, 529-530.

banks and on bills not endorsed by member banks. Regulations were issued less frequently in 1917-19. In 1917 the Board pointed out that the attachment of a bill of lading was not an adequate safeguard; the reserve bank ought to inquire into the use of the proceeds.¹ In 1918 the Board urged discrimination in rates against bills not endorsed by a third party.² Giving expression to its concern over the abuse of the acceptance privilege in its 1920 regulations, the Board took, in particular, a firm stand on the authority of reserve banks to require statements from one or more parties even for endorsed bills, on the use of acceptances for providing funds for periods greater than the time required to finance underlying transactions, and on the question of renewals; whereas for acceptances not endorsed or accepted by a member bank, the Board requested statements and information.³

Deflation and depression were followed by more liberal rulings, and increased discretion was bestowed upon the reserve banks.⁴ In May, 1921, reserve banks were given permission to purchase 6-month acceptances growing out of foreign trade;⁵ and in July, the Board replied to an inquirer that although a member bank could not agree unconditionally to accept a renewal draft, it might accept the draft at the end of 90 days if, through abnormal or unforeseen developments, liquidation had not been completed.⁶ Early in 1922, the Board revised its acceptance regulations in a manner to give free scope to the judgment of reserve bankers.⁷ The Board also now allowed reserve banks to purchase 6-month acceptances drawn by the cooperative associations and growers to finance orderly marketing of agricultural products.⁸ Realizing the need of dollar

¹ *F.R.B.*, 1917, p. 380.

² *Ibid.*, 1918, p. 635.

³ *Ibid.*, 1920, pp. 1180-1181. The tendency in the following years was to discourage the purchase of unendorsed acceptances by reserve banks. *Ibid.*, 1921, p. 699; Richmond Federal Reserve Bank, *Circular*, No. 126, November 8, 1922.

⁴ A committee of chief national examiners reported in 1922 that the liberality of the Board was reflected in an increased number of abuses. *Mim.L.S.*, 1922 (16), pp. 604-607. But more recently, reserve banks have denied the prevalence of abuses. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 863-865.

⁵ *F.R.B.*, 1921, p. 545.

⁶ *Mim.L.S.*, 1921 (15), x-3175a, pp. 868-870.

⁷ *Acc. Bull.*, March, 1922, pp. 1, 4-5; *F.R.B.*, 1922, p. 433.

⁸ *F.R.A.*, 1922, p. 38. A legal decision by the Board's counsel restricted the application of the phrase "the kinds and maturities by this act made eligible for rediscount" to bills of exchange, and held that it did not apply to bankers' acceptances — the terms "bills of exchange" and "acceptances" precede the quoted clause in Section 14 — and this liberalization was made possible by this interpretation. *Ibid.*, 1921, pp. 682-683.

credits in foreign countries, the Board in 1924 suggested that exports of cotton might be financed by acceptance credits in the United States secured by cotton in a warehouse in *Germany*, with the substitution of trade acceptances as security when the cotton was delivered to the buyer.¹ Late in 1927, the Board finally approved the proposal that bankers' acceptances might be considered as growing out of transactions involving the import or export of goods when given for the purpose of financing under the conditions characteristic of the trade, the sale and distribution of imported or exported goods.² Undoubtedly these concessions have been an important factor in the unprecedented spread of the use of acceptances in recent years.³ In 1931 reserve banks attempted to explain the increased financing through dollar acceptances in 1927-30. The increased financing of foreign trade was explained by the reduction in rates in 1927, the shortage of capital in Europe, and the liberalization of rulings. (The New York Bank expressed the opinion that the scarcity of capital was not an important factor.) Domestic acceptances were held to be more popular because of the need of financing the storage of agricultural commodities which had declined in price.⁴

It is clear that reserve authorities have modified their policies toward acceptances in accordance with changing conditions. Abuses undoubtedly crept in in the early years; but the excessive use of acceptances in the years 1917-20 is to be ascribed in part to war conditions. In spite of repeated warnings by the Board and requests for statements and information concerning underlying transactions, acceptances were issued and purchased or rediscounted by reserve banks that represented capital advances to foreign importers (indirectly), or were a means of evading the 10 per cent limit on ad-

¹ *F.R.B.*, 1924, p. 638; cf. *F.R.A.*, 1924, p. 277.

² *Mim.L.S.*, 1927 (27), X-4999, X-4999b, pp. 402-414. The Board's acceptance committee reported that longer credits were necessary and that restrictions should be removed. Also see Philadelphia Federal Reserve Bank, *Circular*, No. 403, December 5, 1927; *F.R.A.*, 1928, p. 13. Willis and Steiner contend that the instrument should be specifically related to a given transaction or series of transactions; but it is only required that the transaction grow out of an import or export transaction. The draft is eligible when the sale has been made (for export) whether bill of lading has been attached or goods exported or not. H. P. Willis and W. H. Steiner, *op. cit.*, pp. 567-568.

³ Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 434-439; P. M. Brown, *Bankers' Acceptances and the Discount Market* (unpublished doctorate thesis deposited in Harvard College Library), pp. 47-50.

⁴ Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 852-859.

vances (and rediscounts through one bank) to any one borrower. The removal of the rigid restrictions imposed in the early post-war period and the increased discretion bestowed on reserve banks, as well as liberal interpretations by the Board, have resulted in an increased use of acceptance credits and of investments in acceptances by reserve banks since 1922.¹ In the future, reserve officials are less likely to be influenced in their rulings on the eligibility of acceptances by a consideration of the effects of the rulings on the volume of their earning assets or their investments in acceptances, for reserve banks are likely to be less important investors in acceptances and to be less inclined to support the acceptance market at the expense of the control of the money market. Attempts to liberalize the acceptance rulings in 1927-29 stimulated the use of acceptance credits in Germany for the purpose of providing permanent capital: the increase in acceptances outstanding has been at an unprecedented rate, and the Board has been most liberal in its interpretations.²

4. ADVANCES ON PROMISSORY NOTES AND REPURCHASE AGREEMENTS

The popularity of advances on promissory notes and repurchase agreements has been a factor destructive to the potency of eligibility rules.³ Member banks now obtain most of their advances from reserve banks, particularly in the financial centers, by borrowing on their own notes collateralized by public securities or eligible paper. The result of the practice has undoubtedly been a failure to consider adequately the quality of the eligible paper offered as security

¹ The attitude of the Board during these years is clearly revealed by its policy toward sight drafts. The Board proposed that they be made eligible and later gave the new legislation the broadest possible interpretation; and when the Board was unable to include various types of paper under the ruling, the law was modified once more. In 1928 reserve banks were given permission to purchase sight drafts even though they bore the endorsement of a non-member bank. *Proceedings*, October, 1922, I, 47-48; U. S. House Banking and Currency Committee, Hearings: *Rural Credits* (67: 4), 1923, pp. 103-104; *Mim.L.S.*, 1924 (20), X-3948a, pp. 67-68; *ibid.*, 1928 (29), X-6145, X-6145a, pp. 289-290; *Commerce Monthly*, August, 1928 (x), pp. 29-30; Dallas Federal Reserve Bank, *Circular*, No. 7, Series of 1928. Public-No. 594-70th Congress [S. 1989], 1928; U. S. Senate Report No. 335 (70: 1).

² Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 450; *F.R.A.*, 1928, p. 7; cf. Annex III and Annex V of the *Basle Report* republished in the London *Economist*, August 22, 1931. Particularly significant are the large increase in short term indebtedness of Germany in the years 1927-29 and obligations on acceptances to the United States of approximately 1,500 million Reichsmarks early in 1931.

³ Consult Chart XXII and the discussion on pp. 796-797.

against notes of member banks, as well as a reduction of the significance of eligibility rules; and increased emphasis has been given to the total amount of accommodation.¹ The development has been consistent with the trend toward control of the total amount of accommodation offered to any particular bank rather than control through the acceptance or rejection of particular parcels of paper on grounds of ineligibility. Glass, Willis, and others have contended that the abuse of reserve facilities and the failure to observe the fundamental principles of eligibility incorporated in the Act may be traced to the prevalence of borrowing on member-bank notes.² On the other hand, influential bankers have insisted that the practice of borrowing on collateralized notes has not increased the total amount of accommodation.³

The Board anticipated future developments when in 1915 it established a 3 per cent rate for loans of 10 days.⁴ At the Senatorial Hearings in 1916, Governor Harding proposed the introduction of a system of borrowing on 15-day notes on the grounds that much detailed work would be averted; on this occasion he testified that the reserve banks (or branches) at Charleston, Birmingham, New Orleans, Memphis, and San Francisco had requested the privilege of lending on 15-day notes.⁵ In 1920 the Board revealed privately that the occasion for the proposal in the spring of 1916 was that member banks had made little use of the facilities of the reserve banks, for they had not been willing to offer paper of long maturities when they required cash for but a few days. Moreover, war

¹ Professor Sprague approved a proposal to stimulate borrowing on member-bank notes on the grounds that more attention would then be paid to the volume of borrowing by the member bank than to the eligibility of the paper offered. *Proceedings*, November, 1925, p. 162.

² Hearings: *Operation of Banking Systems* (71 : 3), 1931, p. 61; *Mim.L.S.*, 1929 (30), x-6243, pp. 109-170; Hearings: *Brokers' Loans* (70 : 1), 1928, p. 17; W. A. Brown, Jr., "Concentration of Government Securities in Hands of Banks and Corporations," *Annalist*, 1928 (32), pp. 276-277.

³ Mr. Mitchell of the National City Bank points out that since he has been with his bank, it has always held supplies of eligible paper in excess of the total borrowings at the reserve bank. In other words, the bank held more than enough eligible paper to replace loans collateralized by Government securities. All but two of the banks borrowing from the New York Bank in 1929 had eligible paper adequate to meet all their needs without borrowing on notes collateralized by securities. Hearings: *Operation of Banking Systems* (71 : 3), 1931, pp. 292, 719.

⁴ *C.F.Chr.*, 1915 (100), p. 2126.

⁵ U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64 : 1), 1916, p. 15. Governor Harrison later explained the legal origins of the amendment. *Proceedings*, October, 1920, II, 353-354.

was imminent, and therefore it was considered necessary that the facilities for rediscounting be improved.¹ In 1925 Governor Harding said that the proposal had emanated from Warburg, and that it had been pointed out that New York banks borrowed for but a few days, to replenish their reserves and for other emergency purposes.²

In 1917 the counsel of the Board ruled that 15-day notes might be renewed even if the identical collateral were offered.³ But by 1919, authorities began to take measures to discourage the use of this method of borrowing. Preferential rates were given up, and the increase in rates in 1919-20 was especially precipitate for advances on the notes of member banks.⁴ The Board recommended to the governors in 1923 that reserve banks should not take bills in bulk from member banks and give a fictitious maturity for the purpose of making short term advances.⁵ This was apparently a variant of the more orthodox method of borrowing on the security of notes of the member bank, and was of doubtful legality. The practice of borrowing on members' notes received much criticism in these years.⁶ As far back as 1919, however, the Federal Advisory Council had proposed the extension of the privilege of borrowing on member-bank notes to 90-day periods.⁷ At the 1925 Conference of Governors, six of the nine governors present favored an extension to 90, and the Conference recommended an extension to 60, days. One governor contended that eligible paper rediscounted by reserve banks was not self-liquidating and the advances secured by notes of member banks would give them a lien on the assets of member banks; a Federal Reserve Agent anticipated hopefully that the change would precede a liberalization of eligibility laws.⁸ In the

¹ *Mim.L.S.*, 1920 (13), x-1972, pp. 652-653.

² *Proceedings*, November, 1925, p. 145.

³ *F.R.B.*, 1917, p. 765.

⁴ *C.F.Chr.*, 1920 (110), p. 286; *F.R.A.*, 1919, p. 5; *Mim.L.S.*, 1920 (13), x-1972, pp. 654-658. (The Board considered various methods of discouraging the practice of borrowing on member-bank notes.) *Cf. Dallas R. B. Ann.*, 1918, pp. 8-9.

⁵ *Mim.L.S.*, 1923 (18), x-3670, pp. 223-224.

⁶ San Francisco Federal Reserve Bank, *Circular*, No. 32, March 1, 1924. The San Francisco Bank would maintain such loans at a minimum. *Cf. Proceedings*, November, 1925, pp. 138-139. (Letter of McFadden to Crissinger.)

⁷ *F.R.A.*, 1919, p. 514.

⁸ *Proceedings*, November, 1925, pp. 125-135. In 1916, the New York Bank had pointed out that the reserve bank's position was made more secure by this form of borrowing because a lien on the assets of member banks was thus obtained. *C.F.Chr.*, 1916 (103), p. 1476. (New York Federal Reserve Bank, *Circular*, No. 50.) In the midst of the period of violent criticism in 1927-29, the Board found it expedient to drop the proposal for an extension of the maturities of member-bank notes. *Cf. Mim.L.S.*, 1926 (24), x-4507, p. 94; *ibid.*, 1930 (32), x-6490, p. 101.

speculative years of 1928 and 1929, the possibility of charging discriminatory rates on member-bank notes or of restricting loans to a minimum period of 7 days was seriously considered.¹

Repurchase agreements were apparently in vogue as early as 1916. The law department of the Board ruled that the rate of discount should be determined by the maturity of the instrument discounted at the time of discount, and not upon a collateral agreement by which a member bank binds itself to repurchase before maturity.² But the important stimulus to the use of repurchase agreements was the imposition of a stamp tax on advances on promissory notes of member banks.³ When the War Finance Corporation Act (1918) later provided that notes secured by bonds or obligations of the United States were to be exempt from the stamp tax, the Board requested that the practice of purchasing Liberty bonds and certificates of indebtedness under repurchase agreements be discontinued.⁴ It is known that these wishes were not heeded. The Board had also encouraged, by a ruling of November, 1917, the discount of long-term commercial bills with 15-day repurchase agreements; it now (July, 1918) announced that it had no objection to the continuance of this practice, but the rate charged was to be one half of one per cent in excess of the rate on collateral notes subject to the tax.⁵ Authorities continued to urge reserve banks to extend credit by repurchase agreements;⁶ it was suggested by the Federal Advisory

¹ *Mim.L.S.*, 1928 (29), x-6124, p. 138; *ibid.*, x-6191a, p. 367; *ibid.*, 1929 (30), x-6260, pp. 230-232, 239-240; *F.R.A.*, 1928, p. 229. Board's counsel contended that the Board derived the authority to restrict advances to a minimum of 7 days from the provision in Section 13 that the Board might restrict, limit, and regulate the discount of bills receivable; and that special rates might be charged on promissory notes in order to check speculation by virtue of Section 14(d) and the decision of the Attorney-general on the Board's authority to initiate changes in rates. The Board and Advisory Council were not in favor of the suggestions.

² *F.R.B.*, 1916, pp. 461-462.

³ The Board therefore suggested the rediscount of commercial paper or public securities with agreements to repurchase. *Mim.L.S.*, 1917, x-545, December 1, 1917. Repurchase agreements offered an opportunity to extend accommodation to non-members. *N.Y.R.B.Ann.*, 1918, pp. 24-25.

⁴ *Mim.L.S.*, 1918, x-817A. The Board also pointed out that numerous member banks had erroneously included securities purchased under repurchase agreements with their discounts. *Ibid.*, x-795, March 3, 1918. Later, the Board pointed out that rediscounts of eligible paper under repurchase agreements should be included with discounts and hence deducted from loans and discounts of members. *Ibid.*, 1920 (13), St. 1314, p. 1215.

⁵ *Ibid.*, 1918, x-1080, July 22, 1918.

⁶ *Ibid.*, 1919 (10), x-1459, p. 188; *Proceedings*, October, 1920, 1, 33. (The governors proposed liberal credits to dealers.) *Mim.L.S.*, 1922 (16), x-3317, p. 118; *ibid.*, 1926

Council in 1923 that other legal methods be adopted for advancing credit to dealers in acceptances and Treasury certificates.¹

Counsel of the Board seriously considered the legality of these repurchase agreements. He was critical of the reserve banks that had extended the practice in recent years, even to advancing credit to non-member banks and others. It was his opinion that these transactions were *ultra vires*, for they were in fact loans, and reserve banks could not legally advance to individuals: they were not, consequently, sales as they purported to be. In support of his position that the repurchase agreements provided advances, he pointed to the provision for additional security, the provision for sale in the contingency that the so-called seller should fail to comply with the agreement of repurchase; and declared that, if the transaction were in fact a sale, as it was not, reserve banks could sell without making special provision for sales. Counsel Wyatt, however, distinguished two types of transactions: in one, the repurchase was obligatory; in the other, optional. Even in the latter type of contract, payment of interest and the payment of a price at variance with the market price were evidence that the transaction was a loan.² On the other hand, at the Stabilization Hearings, Governor Strong contended that the repurchase agreement was a contemplated sale. The object of the offer of collateral was the assurance against losses should the dealer not repurchase.³

In 1931 the authorities of the New York Reserve Bank defended the practice of borrowing in this manner: the advances are of small proportions and the proceeds are generally used (ultimately) by a member bank to repay a debt, for dealers only borrow when stringency prevails on the market.⁴ But one may inquire why this is not an excellent method of obtaining cash when reserve banks are scrutinizing rediscounts.

(24), X-4629, p. 375. (The Board announced in 1922 that Victory notes might be accepted under repurchase agreements and in 1926 that Third Liberty Bonds might be accepted under similar conditions.)

¹ *F.R.A.*, 1923, p. 466.

² *Mim.L.S.*, 1923 (19), X-3817, pp. 701-710.

³ Hearings: *Stabilization* (69: 2), 1926, I, 432-433.

⁴ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 818-819, 824.

CHAPTER XVII

THE FAILURE OF ELIGIBILITY

I. SECURITY

WHEN the Federal Reserve System was introduced, it was commonly assumed that an important departure had been made in that the emphasis in inter-banking accommodation was shifted from collateral (security) to the quality of the paper offered (eligibility).¹ But the expectations of experts have not been fulfilled; more and more, as has been noted in the discussion of the question of borrowing on notes of member banks, the emphasis has reverted to security.

In several instances, authorities have harked back to the original intentions, refusing to approve paper merely because the security was adequate; but these have been sporadic instances, and the occasion has generally been the application of the argument of irrelevancy of security in order to declare a type of paper ineligible that was held to be unacceptable.² In one instance when Congress apparently intended that the security should be a factor, the Board's counsel in 1920 denied that Congress intended to make ineligible paper eligible merely by virtue of the fact that it was secured by crops.³ Thus the Board was able to declare factors' paper ineligible. In another instance, the Board put the emphasis on the business of the borrower rather than on the nature of the crop used as security, in order to give to a statute a liberal interpretation consistent with its past policy.⁴ The Board did not exclude the question of security

¹ *Proceedings*, October, 1920, II, 359-361.

² The Board ruled that the eligibility of a note made by a cooperative marketing association and endorsed by a Federal Intermediate Credit Bank is eligible for rediscount if the proceeds are to be used for an acceptable purpose regardless of the endorsement. *Mim.L.S.*, 1926 (24), X-4568, pp. 241-242. Governor Strong objected on legal grounds to the classification of paper for discount purposes on the basis of collateral. *Ibid.*, 1922 (17), X-3513, p. 1061.

³ *Proceedings*, October, 1920, II, 360, 363.

⁴ *Mim.L.S.*, 1926 (24), X-4559, p. 206. In November, 1920, the Board had ruled that the test of eligibility was not the business of the borrower but the use of the proceeds. *F.R.B.*, 1920, p. 1176.

in preparing its rulings on eligibility. It gave more weight to it than Congress had intended; but it was generally introduced as a consideration or excluded from consideration in order to lend support to a policy already determined on by the Board. The question of security has been raised both to restrict the scope of eligible paper and also to liberalize rulings, but with the exception of acceptances, the question has been invoked more often to liberalize.¹ It has been invoked when Congress would not have favored it and sometimes ruled out when Congress would have it considered. That conclusion follows from a consideration of the attention given to collateralized notes and additional collateral required on eligible paper. On the other hand, in the consideration of acceptability as against eligibility, the question of security was frequently invoked to determine acceptability, and hence offered an opportunity to refuse eligible paper.

The introduction of special commodity rates in 1915 first brought attention to the problem of security, and the use of domestic acceptances and member-bank notes had similar effects.² When collateralized notes became popular, authorities considered the advisability of demanding increased collateral,³ and Governor Harding late in 1919 announced that one of the important responsibilities of the Board was to make certain that the paper rediscounted by member banks was adequately secured.⁴

In 1921 the practice of discounting eligible paper on condition that additional collateral was provided, first began to attract attention.⁵ Thus authorities recognized the fact that eligible paper might not be a safe investment, and that eligibility was not an adequate test.⁶ The Comptroller of the Currency was critical of this practice and commended a reserve bank that, though it did not

¹ *Mim.L.S.*, 1922 (17), X-3474A, p. 907. The Board was, however, careful to point out that acceptances were not eligible merely because a bill of lading was attached. *F.R.B.*, 1917, p. 380. The tendency has been to be less solicitous of the security offered with acceptances although the Federal Reserve Act provides for a consideration of the security against acceptances. Cf. H. P. Willis and W. H. Steiner, *op. cit.*, p. 572.

² *C.F.Chr.*, 1915 (101), p. 572; *ibid.*, 1916 (103), p. 1476; *Mim.L.S.*, X-1057 (July 11, 1918).

³ *Ibid.*, 1920 (12), X-1784, pp. 67-68. The Governor of the Board said that the main reliance was on the security.

⁴ *Ibid.*, 1919 (11), X-1729, p. 893.

⁵ Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 284, 417.

⁶ The Board's counsel in 1922 made the distinction between eligibility and acceptability and related the problem of collateral to the latter. *Mim.L.S.*, 1922 (17), X-3474A, p. 907. Cf. San Francisco Federal Reserve Bank, *Circular*, No. 32, March 1, 1924.

require collateral, investigated each transaction carefully.¹ A later Comptroller admitted that security was not considered in determining eligibility, but was taken into consideration in determining acceptability.² It is evident that the result of the emphasis on security has been a failure to pay adequate attention to eligibility.

Thus creditors of the bankrupt Neoga Bank sued the Chicago Bank because the latter had not kept conversant with its condition and thus failed to protect its depositors. Apparently the Chicago Reserve Bank had appropriated virtually all the satisfactory paper available, with the result that it held 121,000 dollars of collateral against an advance of 51,000; and the Bank had compelled the Neoga Bank to reduce its debt from 80,000 to 51,000.³ In a more recent case, it was held that the reserve bank (Richmond) unlawfully held 600,000 dollars of assets (excess collateral) and that the Bank and 11 other creditors held 64 per cent of the assets to cover 34 per cent of the liabilities. Counsel of the Reserve Bank replied that the requirement of security is incidental to banking.⁴

The practice of requiring a member bank in agricultural sections to deposit the collateral taken from its customers was apparently quite common.⁵ The importance attached to security in recent years may be inferred from the manner in which statements are dispensed with when the obligation is secured. The emphasis is thus shifted from eligibility to acceptability. Previously, the emphasis had been put on the use of the proceeds, which was to be revealed by statements of the borrowers, although under certain circumstances the reserve banks might accept the testimony of an official of the member bank. Now circulars of reserve banks include a section on eligibility where the proper use of the proceeds is men-

¹ *C.F.Chr.*, 1922 (114), p. 132. It was also held by a Comptroller of the Currency that the requirement of additional security against eligible paper resulted in increased borrowing on Government securities. Governor Harding admitted that several reserve banks required additional collateral. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 156-157, 417-418.

² *Mim.L.S.*, 1925 (22), p. 59. Cf. U. S. House Banking and Currency Committee, Hearings: *Consolidation of National Banking Associations* (68: 1), 1924, p. 233.

Congress has provided that paper otherwise ineligible might become eligible if secured by bonds or notes of the War Finance Corporation. *Mim.L.S.*, 1924 (20), X-3972a, p. 112.

³ *Ibid.*, 1928 (29), X-6130, pp. 174-178. District Court of United States, Eastern District of Illinois, *J. F. Jarvis et al. vs. Otto Keep et al.* (Court's Ruling upon Motion of Federal Reserve Bank of Chicago to Dismiss Complainants' Bill).

⁴ *Mim.L.S.*, 1930, X-6740, pp. 340-359.

⁵ San Francisco Federal Reserve Bank, *Circular*, No. 32, March 1, 1924.

tioned; but the emphasis seems to be on acceptability, which is to be determined by an inspection of the statement or the availability of security.¹

Professor Sprague seems to approve of the practice of demanding additional collateral, for the quantity of eligible paper has thus been reduced.² But authorities associated with the creation of the Federal Reserve System regret that less emphasis has been given to eligibility and increased attention paid to security and the total volume of borrowing.³ Both the Comptroller of the Currency (Pole) and Governor Harrison defend, on the grounds that member banks may thus be saved, the practice of demanding additional collateral.⁴ More recently, reserve banks have justified the practice of demanding additional collateral on the grounds that they can thus lend safely when they otherwise might not be able to lend, especially when the endorsement of the bank is not a sufficient safeguard, or when unsatisfactory conditions prevail.⁵ Professor Westerfield has recently discussed the problem in much detail.⁶

2. CONDITION OF THE REDISCOUNTING BANK

In an earlier chapter, something has been said about the problem of examination in relation to the control of the lending policies of member banks. It will be recalled that many authorities deemed more thorough examinations on the part of the reserve banks and the Board necessary, and that in the last few years some progress has been made along these lines.⁷ The problem of the condition of member banks has also been raised in relation to the question of acceptability of paper; as early as 1914, it was realized that the

¹ San Francisco Federal Reserve Bank, *Circular*, No. 32, March 1, 1924; St. Louis Federal Reserve Bank, *Circular*, July 2, 1928.

² *Proceedings*, November, 1925, p. 74.

³ *Hearings: Brokers' Loans* (70: 1), 1928, p. 16; *Hearings: Operation of Banking Systems* (71: 3), 1931, p. 29.

⁴ *Ibid.*, pp. 29, 105.

⁵ *Ibid.*, pp. 712-715.

⁶ R. B. Westerfield, *op. cit.*, pp. 36-53. He finds that the legal justification is derived from the provision that member banks cannot become indebted in excess of capital except on paper rediscounted with reserve banks. Also he argues that the practice is popular in part because Government securities are not available in sufficient quantities for the purpose of borrowing from reserve banks. Also, in his opinion, the requirement of additional collateral curtails demands for accommodation from reserve banks.

⁷ *Min.L.S.*, 1921 (14), X-3109a, p. 583.

endorsement of the member bank was to be taken seriously; the requirement that the member bank endorse paper rediscounted is also evidence of this fact.¹

Adequate attention was first given to the problem in the post-war period; the increased attention paid to the condition of the member bank was consistent with the general tendency to neglect eligibility rules and put more emphasis on the security and the total amount of accommodation offered to the bank. In 1919, the Board called the attention of the governors to the extraordinary liberality with which accommodation was given to small member, as well as over-extended, banks, and inquired to what extent reliance was placed upon the standing and condition of the endorsing bank and its certification of the eligibility of notes submitted for rediscount.² The governors replied that so long as the government was making heavy demands on the banks, they could not restrict the lines-of-credit advanced to individual banks; but in granting large lines-of-credit, the reserve banks considered not only the standing and condition of members but also the value and quality of the paper discounted.³ At Congressional Hearings in 1921, Senator Fletcher rightly pointed out that the reserve banks looked to the members, and hence inadequate attention was paid to the self-liquidating quality of the paper.⁴ The New York Bank put emphasis on the security offered by the endorsement of the member bank.⁵ Such emphasis results in a reduction of the weight imparted to other forms of security. Thus Governor Harding warns against rediscounting paper of doubtful goodness merely because it has the endorsement of the member bank, and Governor Strong says that

¹ *F.R.B.*, 1914, p. 172.

² *Mim.L.S.*, 1919, X-1390a. (Suggested topics for Conference with Governors, March 20, 1919.)

³ *Ibid.*, X-1459. Recommendations of Governors.

⁴ Hearings: *Sale of Farm Loan Bonds* (67: 1), 1921, pp. 21-22.

⁵ Governor Strong wrote to the Board that "to give a preferential rate for eligible paper merely because it is secured by a creation of collateral superimposes upon the law a principle which never could have been contemplated and which, indeed, is contrary to the spirit of the Act itself, for it recognizes in a material way a certain class of security which in fact has no substantial relation either to the eligibility of the paper or to its desirability as an investment. . . . But these factors might well be left out of consideration in the determination of the discount rate, as distinguished from an open market, since in all cases of rediscount, the accommodation is secured by the endorsement of the borrowing member bank and it would be futile, if not impossible, to attempt to vary the discount rate in accordance with the risk involved, aside from the endorsement of the borrowing bank." *Mim.L.S.*, 1922 (17), X-3513, p. 1058.

a member bank makes paper good by putting its endorsement on it.¹

Reserve officials and the courts continued to assign much emphasis to the endorsement of the member banks.² In an important case, the court held that the reserve bank might apply both the reserve deposits and the cash contributed by members to the capital of the reserve banks to cover any losses suffered on paper endorsed by the member bank.³ Reserve authorities have also decided that the assets of member banks deposited with reserve banks as security against their debts to the reserve banks may not be used to satisfy the demands of other creditors of member banks in event of the latter's insolvency; that is to say, the reserve banks are not to apply these assets by cashing drafts on member banks received by the reserve bank as their agent.⁴

3. ELASTICITY IN THE FORMULATION OF REGULATIONS

The object of introducing eligibility provisions in the Federal Reserve Act was to conserve the resources of the reserve banks for commercial purposes and to influence the lending policies of members so that they would hold the maximum possible supplies of acceptable or eligible paper.⁵ In the early years of the System, officials frequently boasted that member banks were beginning to increase their holdings of eligible paper.⁶ Any success of the reserve banks in achieving this objective resulted in an agitation to modify eligibility rules in order to include paper that was ineligible but considered

¹ Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 69. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 508.

² *C.F.Chr.*, 1922 (114), p. 133. Richmond Reserve Bank, *Proceedings*, 1928, p. 42. Dallas Reserve Bank, *Proceedings*, 1927, pp. 67-68. According to Steiner, Willis, on the other hand, would not consider the condition of the member bank. W. H. Steiner, "Paper Eligible for Rediscount at Federal Reserve Banks," *Journal of Political Economy*, 1926, p. 331.

³ *Mim.L.S.*, 1928 (29), x-6130, pp. 191-192.

⁴ *Ibid.*, 1929 (31), x-6445, p. 284. Cf. *ibid.*, 1925 (23), x-4464, pp. 265-273. U. S. Circuit Court of Appeals, *Federal Reserve Bank of San Francisco vs. Idaho Grimm Alfalfa Seed Growers' Association*, No. 4560. This case is interesting: the point at issue was the extent of responsibility of a reserve bank which had rediscounted paper in good faith to save a member bank. The member bank became insolvent before the depositor of a draft rediscounted withdrew the proceeds of the draft deposited; the depositor sued the reserve bank.

⁵ National City Bank, *Economic Conditions*, June, 1928, p. 90; Dallas Federal Reserve Bank, *Circular*, No. 7, Series of 1928.

⁶ *C.F.Chr.*, 1915 (101), p. 1673; *Atlanta R. B. Ann.*, 1915, p. 272.

representative of industries contributing to the economic welfare of the country.¹ In an earlier chapter, something has been said of the modification of eligibility laws and regulations in the light of current economic developments and the agitation of vested interests. In attempts to enforce eligibility rules, reserve banks have been indiscreet: they have at times declared ineligible the paper of entire industries. Such measures could not escape the attention of politicians and they are not likely to be invoked again.²

Eligibility laws were framed with a view to stimulating the use of self-liquidating paper of a commercial type. But paper based on speculative or investment transactions and investments in securities constitute a much larger proportion of the assets of banks than they did in 1913.³ Governor Meyer can only reply to critics that the development has occurred in spite of reserve policy.⁴ In view of this development it is difficult to understand why some authorities still object to the broadening of eligibility requirements on the grounds that bad or undesirable forms of banking will be stimulated or that reserve banks should rediscount paper of a self-liquidating type.⁵

¹ U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, pp. 38-39. In the War, the agitation was to make the definition inclusive of all paper of essential industries. In recent years, the agitation has been to make various types of finance paper (instalment paper and the like) eligible. *C.F.Chr.*, 1928 (127), p. 3034. President Hoover's recent announcement concerning the Credit Corporation is significant here: "The purpose of this institution to be the rediscount of banking assets not now eligible for rediscount at the Federal reserve banks in order to assure our banks, being sound, that they may attain liquidity in case of necessity, and thereby enable them to continue their business without the restriction of credit or the sacrifice of their assets." He then announced that he would propose the introduction of broader eligibility provisions. *F.R.B.*, 1931, pp. 551-552.

² Representative Strong introduced a bill which provided that "the Federal Reserve Board shall have no power or authority to restrict the amount or class of eligible paper a member bank may rediscount so long as it complies with the law that applies to member banks. . . ." except by a vote of two thirds of the Board. *C.F.Chr.*, 1921 (112), p. 2481.

At Congressional Hearings, Governor Harding said that "the Federal Reserve Board has insisted that the Kansas City Bank must not put any general restrictions on credit; that it must not say that any paper, whether it is automobile paper or oil paper, if it is technically eligible, shall be discriminated against as a class." U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish the Office of Comptroller of the Currency* (67: 1), 1921, p. 5.

³ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 1007-1009.

⁴ *Mim.L.S.*, 1930, X-6759a, pp. 382-383.

⁵ *C.F.Chr.*, 1930 (130), pp. 3482-3483 (Economic Policy Commission of the American Bankers' Association); J. W. Bell, "Recent Changes in the Character of Bank Liabilities and the Problem of Bank Reserves," *American Economic Review, Supplement*, March, 1932, p. 203.

In truth there is not a great deal to be said for the broadening of eligibility laws and regulations in view of the large supplies outstanding as compared to the maximum supplies that could conceivably be rediscounted.¹

But there is *something* to be said for the liberalization of eligibility laws; and that has been said in the course of the recent emergency. Every bank with *good* (sound) assets ought to have access to the reserve bank in times of trouble;² eligibility laws drawn to encourage transactions that, consistent with the orthodox banking theory of 1913, are held to be within the province of banking, and rules formulated with a view to consistency and political favor, should not stand in the way of the small minority of banks with inadequate supplies of eligible paper. Moreover, the disappearance of obstacles to rediscounting arising from rules of eligibility is consistent with the trend of the last fifteen years: eligibility is of decreasing, the endorsement of the member bank of increasing, importance. In times of trouble banks will be saved so long as they have sound assets, although it is desirable that some agency other than the central bank accumulate illiquid (but sound) assets; in more normal times the reserve bank once more will have to apportion the credit that it considers appropriate to the occasion on such criteria as acceptability and the equitable treatment of member banks. It will receive no help from eligibility laws, just as it has received little or none in the past.

Eligible paper (and Government securities), in volume several times as large as could conceivably be used for the purpose of rediscounting or borrowing from reserve banks, has been held by banks even before the Glass-Steagall Act was passed. Member banks did not accumulate so much paper merely because it was eligible; for the purpose of rediscounting they could well have been satisfied with less. Their investment policies are also determined by other considerations: a broadening of the eligibility regulations will probably not result in any important changes in investment policies.

¹ As late as 1930-31 leading officials of the reserve system objected to a broadening of the eligibility requirements on the grounds that regulations were sufficiently broad. Hearings: *Branch Banking* (71: 2), 1930, p. 500; Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 707-708. Cf. Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 253; and S. 3215 (72: 1), 1932 — the Banking Bill of 1932, Section 13. The theory of eligibility current in 1913 still has its adherents.

² House Report No. 475, *To Improve the Facilities of the Federal Reserve System* (72: 1), 1932, p. 2; *F.R.B.*, 1932, pp. 141-142.

The crucial point is that a member bank is disposed to hold a sufficient quantity of eligible paper to meet possible needs; and this quantity is a small part of its total earning assets, especially in view of the fact that such assets might be purchased later, and because the reserve bank is willing to accept paper of doubtful eligibility if additional collateral is made available.

The Board has exercised discretion in formulating eligibility rulings which, withal, must be consistent with the law, and has had the responsibility of defining terms in the Federal Reserve Act; the interpretations given to these terms affect the volumes of eligible paper outstanding.¹ The interpretations of the Board have generally had the result of increasing the volume of eligible paper.

Authorities have been especially liberal in recent years, as might be expected from a consideration of the attitude toward eligibility rules. Thus, reserve banks are not allowed to discount the paper of one borrower for a member bank in excess of the amount that a member bank may lend to one borrower; but in defining terms — *actually existing values*,² *maker of a note*³ — the Board has been liberal. In an important decision of 1918, the Board ruled that notes rediscounted by a member bank with a reserve bank were not to be included in the limitations on advances by a national bank to one borrower. Several reserve officials protested at this ruling,

¹ The Board is also given the authority to restrict investments in various types of paper that are relatively non-liquidating or unsound, and retains broad powers to restrict and regulate the rediscount of bills receivable. *Ibid.*, 1923, pp. 429-431. In recent years, there has been a tendency to adjust rulings to the practices of reserve banks and to allow reserve banks to participate in the task of formulating rules. *Mim.L.S.*, 1925 (23), x-4483, p. 295; *ibid.*, 1927 (26), x-4871, pp. 353-354.

² The authorities were disposed to increase the legal limit of advances to one borrower when the provision was an obstacle to the expansion of rediscounts. *Ibid.*, 1919, x-1478. In the latter part of 1920, however, rulings were made consistent with the deflation policy. *F.R.B.*, 1920, p. 1179. This point is also discussed in the previous chapter. Both the Board and Congress were inclined to define *actually existing values* liberally in 1922-23. *Ibid.*, 1922, p. 934; *Mim.L.S.*, 1922 (17), x-3480a, pp. 918-923; *ibid.*, 1923 (18), x-3642, pp. 149-154; cf. W. F. Mitchell, *op. cit.*, p. 138. The Board was, however, critical of the proposal to increase the amount of paper rediscountable of any one name. *Mim.L.S.*, 1925 (22), pp. 86-87, 105-106.

³ *Acc. Bull.*, May, 1924, pp. 13-14; *Mim.L.S.*, 1924 (20), x-3972a, pp. 192-193. Thus the Board ruled that the farmer rather than the cattle dealer was the borrower. Since the cattle dealer was likely to be a much heavier borrower than the farmer whom he financed, this ruling had the effect of increasing the volume of eligible paper. Cf. *American Bankers' Association Journal*, June, 1927, pp. 878-880; H. P. Willis and W. H. Steiner, *op. cit.*, pp. 164-169.

which might, they felt, unnecessarily stimulate rediscounts and lead to collusion between banks and their customers.¹

The authorities were able in other ways to inject an element of elasticity into the formulation of eligibility rules. Thus in December, 1920, the Board suggested in a rather covert manner that in view of the fact that the new financial statements would reveal a very material reduction in the ratio of quick assets, it would be desirable for reserve banks to adopt a uniform and somewhat more liberal policy in rediscounting commercial paper.² In the years 1918-21, the application of similar standards of rediscounting was held to be peculiarly necessary because of the large volume of inter-reserve-bank accommodation outstanding.³ Governor Strong said in 1921: "The rules which we would apply and the tests which we would apply in determining the goodness of commercial paper which were justified in periods of high prices would no longer be justified in a period of low prices."⁴ In 1923-24, there was also a tendency to interpret the law in a liberal manner.⁵

4. THE QUANTITY OF ELIGIBLE PAPER

Although little was known in the years 1912-14 concerning the volume of eligible paper, it was anticipated by some that the definition of eligible paper would exercise a restraining influence; but

¹ *Mim.L.S.*, 1918, X-1120, July 7, 1918 and X-1120a, August 12, 1918. The Board also suggested methods by which reserve banks might detect attempts to evade Section 5200. In general, the Board's position was that the liability involved in the member bank's endorsement was of little practical significance if other banks were willing to purchase the paper. Willis and Steiner assume that this exception also applies to paper rediscounted with correspondents. H. P. Willis and W. H. Steiner, *op. cit.*, p. 171.

² *Mim.L.S.*, 1920 (13), X-3003, p. 1209; *cf. F.R.A.*, 1921, p. 687; *Mim.L.S.*, 1923 (18), X-3700, p. 298. Eugene Meyer said at this time: "Those who defend its every act and policy and who stand for the immutability of the present law and regulations may be as harmful as those who are extreme in their denunciation of the part played by it in the collapse of commodity markets and prices." U. S. House Banking and Currency Committee, Hearings: *Rural Credits* (67: 4), 1923, p. 62.

³ *F.R.B.*, 1918, p. 487. The reserve banks formed an eligibility committee which was to coordinate the rulings and determine technical eligibility and desirability of paper from a credit standpoint for all reserve banks. *Mim.L.S.*, 1921 (15), X-3244, p. 1231.

⁴ Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 508.

⁵ "... On the other hand, the Council recommends that the most liberal interpretations and rulings that consistently can be made should be given by the Federal Reserve Board particularly with regard to such expressions occurring in the acts as 'involving' and growing out of 'domestic' and then to leave it to the Federal reserve banks to exercise the restraining influence within such liberal interpretations and rulings. . . ." (Federal Advisory Council.) *F.R.A.*, 1924, p. 282.

eligibility rules have not had this effect. Undoubtedly numerous banks have been handicapped, particularly in the rural sections, by the failure to hold adequate supplies of eligible paper; and a lack of such supplies has often embarrassed banks in an unsatisfactory condition.¹ But more often than not, the refusal to offer additional accommodation to member banks has been determined by the test of acceptability rather than by that of eligibility. There seems to be a considerable amount of confusion in the consideration of this problem. A satisfactory balance of current assets over liabilities is not adequate. The difficulty has been either that reserve banks do not find the statements of borrowers satisfactory, or else that the security against loans is not adequate which frequently means that the condition of the endorsing bank is not satisfactory. And when the reserve banks declare paper *unsatisfactory* or *not acceptable* and either refuse it or demand additional collateral, they in fact generally reject the paper on grounds of *ineligibility*; although they pretend that the rejection is on grounds of unacceptability. The rejection on grounds of unacceptability evokes less criticism and opposition. Rejections on grounds of acceptability were of course justified for other reasons.

From the very beginning, banks were in the dark concerning the volume of eligible paper in their possession.² Although much attention has been given to this subject since 1914, the probable error of estimates of eligible paper outstanding must still be very large, and we must not therefore put too much faith in such estimates.³ Mem-

¹ Hearings: *War Finance Corporation* (67:3), 1922, p. 24; *C.F.Chr.*, 1930 (130), pp. 3482-3483; *F.R.B.*, 1930, pp. 401-402; *ibid.*, 1932, p. 142; Hearings: *Branch Banking* (71:2), 1930, pp. 499-500.

The Board does not agree with the Economic Policy Commission of the American Bankers' Association that the eligible paper is not distributed well. The latter points out that country state banks have 9 per cent of all loans, but only 6 per cent of the System's eligible paper. The corresponding figures for city state banks are 33 and 27 per cent. But the Board points out that in 1929 but one fifth of the member banks had less than 10 per cent of their loans and investments in eligible paper and United States securities. Banks in the Kansas City District held the largest amount of eligible paper relative to all loans and investments (34 per cent) and those in the Minneapolis District the smallest (15 per cent).

² *B.M.*, August, 1914 (89), pp. 111-112, 114-115; *C.F.Chr.*, 1914 (98), p. 730; *ibid.*, 1915 (100), p. 1880; *N.Y.R.B.Ann.*, 1915, pp. 16-17. Of 480 banks, 81 reported that they had no eligible paper; but a conference with reserve officials convinced the latter that one half of their paper was eligible.

³ The Board wrote to the reserve banks in 1928 that many banks did not have an understanding of what constituted eligible paper; some replied that they did not know what eligible paper was, and others gave estimates that were absurdly high or low.

ber banks are still inclined to be too optimistic about the condition of their customers, and their decisions may be at variance with the reserve banks' judgment, which, after all, is what counts. Moreover, banks are not fully conversant with the law and regulations; and interpretations of reserve banks — as well as the Board's — fluctuate with changing conditions.

It was generally assumed at the inception of the System that member banks did not hold large portfolios of eligible paper. But a campaign of education and liberal interpretations were instrumental in convincing members and potential members that they held more than adequate supplies. "It was a current remark when the Federal Reserve Act was under consideration that member banks would find but little of the kinds and maturities of paper made eligible for rediscount. Experience has shown the exaggerated character of this view, but it has also shown the desirability, not to say necessity, of securing a thorough standardization of paper in order that those items which might perhaps be open to technical objections should be plainly and obviously brought within the requirements of the law, and in order that member banks may obtain experience and facility in carrying through rediscount operations. In this regard much progress has been made; and many banks which believed at the opening of the year that no considerable part of their paper would be available for rediscount, now recognize that a substantial proportion of it either is already eligible or may easily be made to comply with the provisions of the law. . . ." ¹

With the entry of the United States into the War, increased attention was paid to the volume of eligible paper held by member banks; and they were urged to increase their supplies so that they might contribute adequately to the prosecution of the War.² Large issues of Government securities enabled the banks to increase the paper on the basis of which they could rediscount, for they could rediscount their notes secured by Government issues. Perhaps the only inkling that some banks might have held inadequate supplies was the provision in *Circular*, No. 92 of the Treasury Department which pro-

Some banks reported figures which of necessity must include a considerable amount of real estate loans and loans on securities other than those of the United States Government. *Mim.L.S.*, 1928 (29), X-6118, p. 124.

¹ *F.R.A.*, 1915, p. 10. The Cleveland Federal Reserve Bank reported an increase of eligible paper of 21 per cent in the first ten months of 1915. *Cleveland R. B. Ann.*, 1915, pp. 232-233.

² *F.R.B.*, 1917, p. 922.

vided that banks might deposit a designated type of ineligible paper as security against public deposits.¹

In the latter part of 1919, Glass said that although eligible paper before the War was presumptive evidence of the right to borrow, "now and for the life of this Great War debt the possession of eligible paper will be no evidence at all."² Governor Harding commented on the practice of retaining ineligible paper and rediscounting eligible paper.³ And in the years 1921-26, officials and authorities frequently complained of the failure of eligibility rules to provide the reserve banks with a weapon of control.⁴

By 1926 the relative reduction of the amount of eligible paper began to attract attention;⁵ the explanation of this tendency is that member banks were purchasing large quantities of investments and, later, advancing large sums on securities.⁶ In the years of frenzied speculation, the reserve authorities urged member banks to increase their holdings of eligible paper; in this manner the Board hoped to influence the investment policies of member banks.⁷ Even in the period of maximum speculation, however, member banks apparently held eligible paper far above any possible amount of accommodation from reserve banks.⁸ The reduction of the proportion of eligible

¹ Treasury Department, *Circular*, No. 92 (October 6, 1917).

² *Mim.L.S.*, 1919 (11), x-1718a, p. 857.

³ U. S. House Banking and Currency Committee, Hearings: *To Amend the War Finance Corporation Act* (67: 1), 1921, p. 6.

⁴ Perrin argued that the character of the paper was an inadequate test; the proportion of paper discounted was a small proportion of the total. *Proceedings*, October, 1922, 1, 73. "The restriction upon the kind of paper that is eligible is of the slightest value either as a general limitation upon credit or in the determination of the character of business of the particular member bank" (Sprague). Hearings: *Stabilization* (69: 2), 1926, 1, 400.

"These requirements as to eligibility were intended not only to safeguard the liquidity and soundness of the assets of the reserve banks, but also to act as limitations on the extent of borrowings by member banks. In view of the large volume of United States Government securities owned by member banks and available as collateral for advances at the reserve banks, however, the limitations on eligibility of paper for discount, though they may be in some cases an influence on the volume of borrowing by an individual member bank, are not a considerable factor limiting the borrowing capacity of member banks as a whole." *F.R.A.*, 1925, pp. 17-18.

⁶ *Ibid.*, 1926, p. 9; *C.F.Chr.*, 1929 (128), p. 1835; Hearings: *Branch Banking* (71: 2), 1930, pp. 499-500.

⁶ *C.F.Chr.*, 1929 (128), p. 2556.

⁷ *Mim.L.S.*, 1928 (29), x-6191a, x-6191b, pp. 367-368, 371; *Philadelphia R. B. Ann.*, 1929, p. 17.

⁸ *C.F.Chr.*, 1929 (128), p. 2559; National City Bank, *Economic Conditions*, January, 1928, pp. 10-11. Against their deposits, the ten largest New York City banks on June 30, 1927 held 15.5 per cent of eligible paper, 11 per cent of United States Gov-

paper to all loans and investments was reflected in an increased agitation for the liberalization of the eligibility rules. Governor Harding, among others, was prepared to rediscount notes secured by high grade bonds;¹ but a committee of the American Bankers' Association objected to a modification of the eligibility laws along these lines.² The agitation in recent years for the liberalization of eligibility laws and the attempts to stimulate investment in eligible paper — both of which movements have received much support in official circles — are evidence of the extent to which the position, that eligibility laws and regulations are not and should not be a means of limiting rediscounts, has been universally accepted.

5. THE RIGHT TO REDISCOUNT

In the early years of the Federal Reserve System, authorities emphasized the right of member banks to rediscount eligible paper; this attitude is easily explained by the monetary conditions of the period. But when expansion was rampant and eligibility rules had failed to prevent expansion, the distinction between eligibility and acceptability, or goodness, began to play a prominent part in the policies of the Federal Reserve System. From previous discussions it will be recalled that in the years 1919 and 1920 much reliance was placed on the provision of Section 4 that member banks be treated without discrimination,³ and that a consideration of the condition of

ernment securities, and 10 per cent of cash on hand and balances with the reserve bank. *C.F.Chr.*, 1927 (125), p. 3573.

¹ W. P. G. Harding, "Suggested Changes in the Federal Reserve Act," *American Bankers' Association Journal*, February, 1930, p. 734.

² Economic Policy Commission, "Productiveness as the Test for Rediscount," *American Bankers' Association Journal*, January, 1930, pp. 1179-1180; cf. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 372-373. According to an estimate of W. R. Kuhns, the volume of outstanding commercial paper declined by 80 per cent from 1920 to 1929; the explanation was the increased reliance on the capital market. The author, however, estimates that the volume outstanding doubled recently in a period of six months. W. R. Kuhns, "What Spurs Commercial Paper," *American Bankers' Association Journal*, May, 1930, p. 1045. Burgess accounts for the increased popularity of financing through the creation of commercial paper in the last year or two by the failure of customer rates to decline adequately. W. R. Burgess, "The Money Market in 1930," *Review of Economic Statistics*, 1931, p. 19.

³ In part the difference between Comptroller Williams and other reserve authorities was that Williams would go beyond the provisions of Section 4; he would give reserve banks an almost arbitrary authority to refuse rediscounts. Governor Strong would be satisfied with the endorsement of the member bank in determining goodness. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 67-68, 508.

"My position is that it is the duty of the Federal reserve banks to exercise a wise

member banks has played an important part in the rediscount policies of reserve banks. Moral suasion involved individual treatment of member banks and the refusal to rediscount eligible paper. It will also be recalled that the reserve banks in the large financial centers were not so enthusiastic concerning the expediency or practicability of dealing with thousands of banks individually. The Board put much emphasis on acceptability in the years 1919-21, but in the next three or four years the emphasis was placed on continuous or excessive borrowers, a position similar to that of the New York Bank. In 1928-29, the Board reverted once more to its earlier position although there is an element of novelty in its more recent position.

When the reserve banks or the Board dwells on the principle of acceptability or goodness, it is not clear what they have in mind. Undoubtedly, there is involved a test beyond technical eligibility; and in recent years it seems that the test of eligibility has become more and more superficial so that what were previously tests of eligibility, have now become tests of goodness or acceptability.¹ Thus reserve banks have acquired greater powers of discretion. In addition to the tests of eligibility and in addition to the rejections justifiable under Section 4, or on grounds of the impaired value of a member bank's endorsement, reserve banks may refuse paper on other grounds. It has been maintained that reserve banks may exer-

discernment and discrimination in extending huge loans to banks which are misusing their funds or are engaged in heavy speculative operations, or which are otherwise subject to criticism. I do not believe that it is the theory of the Federal Reserve Act that money should be handed out to any member bank automatically so long as they furnish eligible paper." Williams in Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 249-250. Goldenweiser later included the credit standing of the signers of notes, availability of funds, quota of member banks, and improper use of funds as criteria of acceptability. E. A. Goldenweiser, *The Federal Reserve System in Operation*, p. 9. Both these views anticipate the official position of 1929.

Governor Harding, however, put the emphasis on security, safety, and the requirements of other banks. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 283.

¹ That the demarcation between eligibility and goodness is not clear is evident from the following. Cf. the definition of acceptability given by Goldenweiser above with Governor Harding's statement that every piece of paper "should stand on its own bottom," and that the reserve bank ought not to rediscount paper technically eligible but of doubtful goodness and should not rely solely on the endorsement of the member bank. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, p. 69. Governor Strong said that "eligibility is one thing and goodness is another, under the terms of the Federal Reserve Act; but when considering eligibility we have got to take into account goodness." He then proceeds to emphasize the significance of the endorsement of the member bank. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, p. 508.

cise discretion in the same manner as do other banks. One reserve bank announced that, rather than aid banks suffering as a result of incompetent management, it preferred to conserve its resources for strong banks temporarily in distress as a result of unfavorable developments not due to their administration.¹ It is significant that most of the discussion of acceptability or the right to discount has been raised in the years of strain, 1919-21 and 1928-32; that fact points to the conclusion that the authorities have applied the principles of Section 4, and that acceptability has been largely a question of the right of one bank against another, as well as a question of security, that is, the protection of the reserve bank. When the resources of reserve banks are not near a point of exhaustion, they are inclined to be satisfied with tests of eligibility except that some preparation for periods of strain is necessary, and hence continuous and excessive borrowers are discouraged; and reserve banks protect themselves by demanding additional collateral when loans seem risky. An inspection of a few recent circulars of reserve banks will reveal the lack of definiteness in the concept of acceptability.²

A relevant consideration of much importance is the fact, as brought out in the statistical analysis later, that reserve banks in agricultural sections *invest* a larger proportion of their deposits than do other reserve banks.³

Sprague in 1926 attributed the excessive volume of rediscounts to the acceptance of the theory that member banks were entitled to rediscount eligible paper by virtue of the fact that loans were to be granted with a view to accommodating commerce.⁴ Owen Young, director of the New York Reserve Bank, made a significant statement of the problem at the Congressional Hearings early in 1931. ". . . the Federal Reserve Act seems to relate the refusal to redis-

¹ Dallas Reserve Bank, *Proceedings*, 1927, p. 64.

² The Reserve Bank of Kansas City considers the security, the financial responsibility of the maker, the self-liquidating quality of the paper, and the equitable distribution of its resources. It follows the same conservative practices that are employed by well-managed banks and requires financial statements for unsecured loans in excess of \$500. Kansas City Federal Reserve Bank, *General Letter*, F-1, March 19, 1929.

The St. Louis Bank does not require statements if the paper is satisfactorily secured by a chattel mortgage on live stock, by bonds or notes of the United States Government or by warehouse receipts for commodities in storage. Eligible paper may not be acceptable; the latter is evidenced by a financial statement or security. St. Louis Federal Reserve Bank, *Circular*, July 2, 1928.

³ Chart II, p. 724; also see pp. 723-728.

⁴ Hearings: *Stabilization* (69: 2), 1926, I, 401.

count to the security of the loan or the volume of the borrowings or to the period which they have been borrowing, and when you get to the point of refusing to rediscount merely because the judgment of the Federal reserve bank differs as to the appropriate practice from that of the member bank, there I think the doubt has arisen."¹ This statement indicates what the point of issue was between the New York Bank and the Board concerning a member bank's right to rediscount, and it is also an indication of the extent to which the New York Bank obtained from Section 4 legal sanction for its rejections on grounds of acceptability. The emphasis placed on *security* is not easily explained. Legally, the only important instance where security is considered is in the determination of the eligibility of acceptances; but it will be recalled that reserve banks rely increasingly on the security rather than on a financial statement for the determination of eligibility, and that they have been willing to accept ineligible paper or paper of doubtful eligibility when the member bank has provided additional security.

Spahr has recently contended that the reserve banks should use more freely a new weapon, namely, the refusal to rediscount eligible paper of member banks. He points out that a reserve bank distinguishes acceptability and eligibility and that the Dallas Bank had refused to discount in 1919.² We shall see that the question has had a longer and more crowded history than Spahr assumes. Kiplinger has recently discussed the history of the controversy, pointing out, as the Board has stated on numerous occasions, that rediscounting is permissive ("may") and that Section 4 confers the authority to refuse paper.³ Recently Newton Baker, counsel of the Board, and the courts, have supported the position that reserve banks rediscount at their discretion.⁴ Now let us turn to the history of this question.

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 363; cf. *ibid.*, pp. 47-48. Compare Hamlin's statement. *Mim.L.S.*, 1930 (30), x-6737, pp. 316-317.

² W. E. Spahr, *The Federal Reserve System and the Control of Credit*, pp. 54-58; W. E. Spahr, "The Keeper of the Nation's Credit," *American Bankers' Association Journal*, July, 1929, p. 36.

³ W. M. Kiplinger, "The Power of Permissive Rediscounting," *ibid.*, February, 1930, pp. 767-768. Kemmerer and Willis also have taken this position. E. W. Kemmerer, "Rediscounting and the Federal Reserve Discount Rate," *ibid.*, April, 1920, pp. 582-584; H. P. Willis, "Reserve System Inflation Power Needs Check," *Annalist*, 1925 (25), pp. 675-676.

⁴ *F.R.A.*, 1929, pp. 228, 230; Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 177; District Court of the United States, *Raichle vs. Federal Reserve Bank of New York* (Brief to Dismiss Complaint), p. 42.

From 1914 to 1917, member banks, urged to use the rediscount facilities of the reserve banks freely, were confronted with the theory that rediscounting was a right of membership. Governor Strong, Chairman Martin of the St. Louis Bank, other leading bankers, Comptroller of the Currency Williams, the Council of the National Defense and members of the Board all proclaimed the rights of the member banks to the privilege of rediscount.¹ In the vigorous efforts made to increase membership in the System, officials offered the inducement of unlimited rediscounts.² Even as late as 1919, the rights of member banks to unlimited rediscounts of eligible paper were granted, even proclaimed.³

On the other hand, the Organization Committee in 1914 proposed an investigation of the condition of each member bank so that the reserve banks might determine the line of credit that might be safely and wisely extended to each bank.⁴ It is incomprehensible that more emphasis has not been placed in the course of the discussion of this question on the provision of the Act that reserve banks may examine member banks in order to determine proper lines of credit. In its 1915 *Report*, the Atlanta Bank classified the reasons for the rejection of paper and included, in addition to ineligibility, maturity, continued renewals, poor mercantile rating and excessive lines of credit extended to the maker of the paper.⁵ All these causes of rejection might well be included under eligibility. The St. Louis Bank for the first time clearly differentiated the responsibility of the Board for eligibility rules and of the Reserve Bank for the safety of the investment.⁶ In June, 1916, counsel for the Board pointed out that member banks could not rediscount all their assets.⁷

But it was not until 1918 that the right of member banks to rediscounts was seriously questioned.⁸ At a Conference of the Gov-

¹ *C.F.Chr.*, 1914 (98), p. 1502; *ibid.*, 1915 (100), p. 1880; *ibid.*, 1915 (101), p. 1155; *ibid.*, 1916 (103), p. 1836; *ibid.*, 1917 (104), p. 2293; *ibid.*, 1917 (105), pp. 1660-1661; *F.R.B.*, 1917, p. 733; U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64: 1), 1916, p. 68.

² *F.R.B.*, 1917, pp. 355-372; *ibid.*, 1918, p. 1083.

³ U. S. House Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (66: 1), 1919, II, 63; *Mim.L.S.*, 1919 (10), X-1742, p. 950.

⁴ Preliminary Committee on Organization, *Report*, p. 38.

⁵ *Atlanta R. B. Ann.*, 1915, p. 274.

⁶ *Rediscounting with the Federal Reserve Bank of St. Louis*, 1916, p. 7.

⁷ *F.R.B.*, 1916, pp. 274-275.

⁸ Early in 1918, the Board urged discriminatory treatment on undesirable types of eligible paper. *F.R.B.*, 1918, pp. 30, 808.

errors in the middle of 1918, they expressed confidence in their ability to control excessive rediscounts by dealing with individual banks.¹ In August the Board's counsel urged reserve banks to refuse eligible paper if it seemed more than probable that the endorsing bank might be called upon to pay the note.² Again, the Board requested of reserve banks in December, 1918, that they inform themselves of the object of borrowing before granting accommodation.³ In 1919, especially in the early months, authorities harped on the right of reserve banks to reject eligible paper.⁴ Now the Board and Governors discussed the extent to which reserve banks ought to consider not only eligibility and desirability, but also the management of the member bank.⁵ The Board continued to stress acceptability in 1920.⁶ Reserve banks might refuse not only domicile bills,⁷ the paper of borrowers doing a nation-wide business, on the grounds that excessive amounts of their paper rediscounted by several member banks were in the possession of a reserve bank,⁸ but also, other types of paper: in particular, they might refuse paper if the payment of the note were conditioned on the successful outcome of the underlying transaction.⁹ Yet the theory behind progressive rates was that member banks might lawfully rediscount to any amount.¹⁰

In 1921 the Board was under pressure to influence the lending policies of reserve banks along expansionist lines, and therefore used effectively the theory that reserve banks discount at their discretion.¹¹ The Board maintained that reserve banks, like any

¹ *Mim.L.S.*, 1918, X-1057, July 11, 1918.

² *Ibid.*, X-1120a, August 7, 1918.

³ *F.R.B.*, 1918, p. 1169.

⁴ *Ibid.*, 1919, pp. 255-256.

⁵ *Mim.L.S.*, 1919, X-1390a, March 20, 1919.

⁶ In the Report on the Phelan Act, inspired by the Board, it was held that member banks might rediscount any amount lawfully. U. S. House Report No. 678: *To Amend the Federal Reserve Act* (66: 2), 1920, p. 2. When the Continental Corporation was informed by the Board that its acceptances were eligible, the Corporation advertised that fact; fearing misunderstanding, the Board warned member and reserve banks that eligibility and desirability were to be distinguished. *Mim.L.S.*, 1920 (12), X-1827, pp. 169-171. When Governor Harding warned two senators that eligibility of factors' paper did not assure rediscount by reserve banks, he was told that they would put the paper through. *Proceedings*, October, 1920, II, 294.

⁷ *F.R.B.*, 1920, p. 386.

⁸ *Ibid.*, p. 278.

⁹ *Ibid.*, p. 699.

¹⁰ U. S. House Report No. 678: *To Amend the Federal Reserve Act* (66: 2), 1920, pp. 1-2.

¹¹ *Ibid.*, 1921, p. 546. The attitude of the politicians is best brought out by their criticism directed against the large number of member banks that did not borrow from the reserve banks: they were not doing their duty to the community. Hearings: *Inquiry on Membership* (68th Cong.), 1923, pp. 191-193.

other banks, might exercise discretion, refusing paper not acceptable from a credit viewpoint.¹ There was evidence, however, that the authorities were not convinced of the validity of their position.² The New York Bank in particular was inclined to minimize the possibility of using discretion,³ and the Board or its representatives on more than one occasion assumed that member banks retained the right to discount.⁴ The question attracted less attention in the years 1922-24 than it had in 1918-21. Nevertheless the Board was aware of the problem. "The Board is fully aware of the fact that the problem of credit extension involves a . . . quantitative as well as a qualitative determination. . . ." ⁵

The question of restraint began to attract attention once more in 1925:

The reserve banks in the districts outside of the financial centers, therefore, in passing upon the loan applications of member banks consider not only the legal eligibility and soundness from the credit point of view of the paper presented for rediscount or as collateral for an advance, but also the general position of the borrowing bank, the volume and character of its outstanding loans and investments, and to some extent the character of its management.⁶

The tendency in the years 1925-27, and even to some extent in 1928, was to put more responsibility on member banks and somewhat less on reserve banks. At meetings of stockholders of both the Boston and Dallas Banks, it was clear that members were still disposed to insist on their right to rediscount.⁷ Burgess put the responsibility

¹ *F.R.B.*, 1921, p. 699; *Mim.L.S.*, 1921 (14), X-3115a, p. 594. (Letter of Board to Senator Myers.) U. S. House Banking and Currency Committee, Hearings: *Amendment to Abolish the Office of Comptroller of the Currency* (67: 1), 1921, p. 4; *F.R.A.*, 1921, p. 93.

² The Board in 1921 said that the law imposes no limit upon the amount that a member bank may rediscount with its reserve bank and hence a low Bank rate as compared to the market rate was not considered expedient. *F.R.A.*, 1921, p. 32. In a letter to Senator Smoot, the Board announced that eligible paper has been refused in but few instances. *F.R.B.*, 1921, pp. 898-899.

³ *Mo. Rev. of N.Y.R.B.*, October, 1920; *Proceedings*, October, 1922, I, 214.

⁴ *F.R.B.*, 1921, p. 671.

⁵ *F.R.A.*, 1923, pp. 33-34; cf. *Mim.L.S.*, 1922 (17), X-3535, pp. 1123-1130. (The reserve authorities considered the problem of discretion in relation to the occasion for rediscounting, condition of the member bank, and its management.) Cf. Richmond Federal Reserve Bank, *Questions and Answers*, pp. 51, 148; M. B. Wellborn, *Bank Failures* (1925). The Atlanta Bank set a basic line and warned member banks that if they borrowed beyond this amount, they were pledging the assets of depositors.

⁶ *F.R.A.*, 1925, pp. 17-18.

⁷ Boston Reserve Bank, *Proceedings*, 1927, p. 24. (Member banks requested advance information on the line of credit to which they were entitled.) Dallas Reserve Bank, *Proceedings*, 1928, pp. 34-37.

for restraint on member banks.¹ Glass, as against Sprague, maintained that the trouble in the past had been the indiscriminate discounting of paper, both sound and unsound.²

In spite of the tendency to deny the right of member banks to rediscount, events of 1930-32 have only strengthened the traditions that member banks are entitled to rediscount all eligible paper; and now even *good* paper not eligible. Reserve authorities, under pressure from all sides, once more proclaim the right and urge banks to further the interests of their communities by rediscounting freely.³

¹ *C.F.Chr.*, 1926 (123), p. 1714.

² Hearings: *Brokers' Loans* (70 : 1), 1928, p. 52.

³ *Mim.L.S.*, 1930, x-6746a, p. 365. Requests by representative organizations that reserve banks exercise discretion now (1932) seem out of date. *The Federal Reserve System*, Report of the Banking and Currency Committee, U. S. Chamber of Commerce (1929), Auxilliary Statements, p. 7; Economic Policy Commission of the American Bankers' Association, April, 1931, p. 23.

CONCLUSION TO PART IV

ELIGIBILITY rules have been disappointing in their influence, in the light of the attention paid to them in the discussions preceding the passage of the Act and in the first few years of the history of the Federal Reserve System. Authorities have given up the hope of influencing banking and business methods in any important sense through eligibility laws and regulations, as well as of regulating the volume of reserve-bank accommodation through the application of narrow regulations or interpretations of the eligibility provisions in Sections 13 and 14. Successive liberalization of the law and of regulations has provided member banks with a volume of eligible paper (including notes that may be offered on the security of bonds or eligible paper) far greater than any conceivable volume of rediscounts.

Undoubtedly, the tendency toward liberalization will and should continue. The emphasis has been shifted from an examination of the paper to an examination of the bank or a consideration of the volume of accommodation received by one bank as against another. If justice is to be done, it is the responsibility of Congress, the Board, and the reserve banks, which jointly are responsible for the definition of eligible and acceptable paper as well as the application of these definitions, to insure every bank doing a legitimate banking business against a deficiency of eligible paper. Deficiencies, relative to the supplies elsewhere, still exist in certain sections of the country and for individual banks, and the deficiency probably largely explains why any attention is still given to eligibility rules. Moreover, member banks frequently find it convenient to refuse accommodation to customers on grounds of ineligibility; and thus may be explained, for example, the agitation of automobile dealers to obtain the approval of the reserve authorities for instalment paper.

Less emphasis is now given to eligibility and more to acceptability. Even some of the tests that had been applied to the determination of eligibility are now used in the determination of acceptability. Eligibility is largely a question of law, legislation, and administration; and the rejection of paper on grounds of ineligibility arouses criticism and opposition, as the Board learned in 1920. It is rela-

tively easy to convince bankers that reserve banks are entitled to exercise discretion even as they are, and the rejection of paper on grounds of non-acceptability is merely the exercise of a banker's discretion. A narrow interpretation of eligibility would have made it possible to use the test of eligibility although the results might have been disastrous; broad interpretation and liberalization make another test necessary.

The shift of interest to acceptability explains in large part the increased attention paid to security and the condition of the endorsing member bank; the latter is of course the most valuable index of the safety of an investment. But even in relation to eligibility, security began to play an important part, once member-bank notes and repurchase agreements became important vehicles for borrowing from the reserve banks. It is to be noted that reserve banks frequently find the inadequacy of the security a convenient excuse for rejecting paper, because reserve policy requires restraint. Continuous borrowers or excessive borrowers are also frowned upon; their paper may be held to be unacceptable and they understand the basis of the discrimination. Reserve banks are still inadequately informed of the condition of their member banks and, hence, the endorsement of the member bank does not carry so much weight as it might. The crux is that the resources of reserve banks are limited by their reserves and, even more narrowly, by the requirements of the monetary situation. In so far as they cannot restrict demands by increasing the price of their commodity, they must resort to other methods. Reserve banks have relied on Section 4 in imposing the test of acceptability; although much has been said of a banker's discretion, the reserve banks, like other central banks, must justify rejections on grounds that are easily understood. The rights of one bank against another and the question of security or safety are convenient explanations. Although financial statements are still kept on file and the use of proceeds is considered, these tests do not occupy the important place that they held in 1914.

CHAPTER XVIII

ACCEPTANCE POLICY

I. INTRODUCTION

UNDER favorable conditions, reserve banks frequently have offered their facilities to acceptance dealers and other investors in acceptances, while at the same time their member banks were unable to obtain all the accommodation required through rediscounts. A self-imposed responsibility to support the acceptance market has had important repercussions on the reserve banks' capacity to control the money market. The attempt to support the acceptance market has also raised serious problems in the relations between reserve banks, for the acceptance market, chiefly concentrated in New York, gives the New York Bank power to determine the buying rate within rather wide limits; and reserve banks in other districts are requested to participate in the distribution of acceptances purchased under conditions largely determined by the New York Bank.¹

2. ACCEPTANCE POLICIES

From the beginning, reserve banks offered support to the acceptance market. Kenzel, an official of the New York Bank and an expert on acceptances, said in 1916 that the reserve bank does not compete for choice bills, for the outside demand is strong; but its purchases are adequate to assure stability of rates when instability threatens.² In 1917 the necessities of war became a predominant

¹ The discretion exercised by reserve banks in the determination of buying rates is not as great as formerly. As late as 1922, the Board announced that the buying rate was $1\frac{1}{2}$ per cent in excess of the minimum approved by the Board. (Reserve banks were anxious to avert any unnecessary interference with the acceptance market.) The minimum rate approved by the Board was published consistently for the first time in 1929; sporadic announcements had been made in earlier years. Recently the span between the minimum and maximum rate has been but $\frac{1}{2}$ of 1 per cent. *F.R.A.*, 1922, p. 18; Hearings: *Operation of Banking Systems* (71:3), 1931, p. 130. Governor Harding in 1928, however, said that reserve banks were authorized to purchase acceptances at a minimum rate of $2\frac{1}{2}$ per cent and a maximum of $4\frac{1}{2}$ per cent. Canada House of Commons, Select Committee on Banking and Commerce, *Consideration of Improvement of Banking System of Canada*, 1928, p. 77.

² *C.F.Chr.*, 1916 (103), p. 1652.

consideration, and the Board requested that the buying rate be maintained above the level of the market rate, with the result that banks and dealers were inclined to hold their acceptances.¹ Increased sales to reserve banks in 1918 and 1919 followed inflation, and the reserve authorities expressed dissatisfaction with the current state of affairs.²

The development of such a market is necessarily a slow process and the burden of its support has fallen during the year 1919, as in previous years, upon the Federal reserve banks. This condition will doubtless continue until banks generally begin to invest funds, temporarily idle, in acceptances and until this method of employing funds appeals to the private investor. The Federal reserve banks most actively engaged in the purchase of acceptances in the open market deemed it necessary in the beginning to establish a more favorable rate both for the discount of these bills for member banks and for their purchase in the open market than was established for the discount of commercial paper.³

In the period of post-war inflation, to discourage the sale of acceptances to reserve banks, the buying rate was maintained at a level above the rediscount rate of acceptances. It was thus proposed that member banks should rediscount rather than sell acceptances, for authorities were aware that banks, by selling acceptances rather than discounting, were escaping the restraint that might be imposed by reserve banks.⁴ The Board even considered the possibility of including, as part of the line of credit extended to member banks, bills purchased from member banks or bills carrying the endorsement of a member purchased from others.⁵ Member banks, however, continued to sell bills in large quantities although sales were more costly than rediscounts.⁶

In 1920 the Board appealed to member banks to support the acceptance market; in a memorandum to the reserve banks Govern-

¹ *Boston R. B. Ann.*, 1917, pp. 13-14.

² *Mim.L.S.*, 1919, X-1390a, March 20, 1919.

³ *F.R.A.*, 1919, p. 22; cf. H. P. Willis, *op. cit.*, Chap. 44. Willis discusses the attitude of the Board during the War and the abuse of the acceptance privilege as a result of the War.

⁴ *F.R.B.*, 1920, p. 347; *C.F.Chr.*, 1920 (110), p. 1805. Cf. *C.F.Chr.*, 1920 (110), p. 1707 for the criticisms by the Acceptance Council of this policy. It was pointed out that the buying rate was the significant rate, for the reserve banks were doing most of their business in acceptances at the higher, that is, the buying rate.

⁵ *Ibid.*, p. 1370; *Mim.L.S.*, 1920 (12), X-1873a, p. 247; *ibid.*, X-1913, p. 376; U. S. Senate Document No. 310 (67: 4), 1923, p. 55. The governors rejected this proposal. *Mim.L.S.*, 1920 (12), X-1906, p. 495.

⁶ *Boston R. B. Ann.*, 1919, p. 14. The reduction of bills purchased in 1920 was marked, however. *F.R.B.*, 1920, p. 347; *ibid.*, 1921, p. 3.

nor Harding pointed out that the object of the special rediscount rate on acceptances was to stimulate investments in acceptances by member banks. He also was sympathetic with the control of the open market for acceptances by member banks and dealers, so long as members did not abuse the privilege of rediscounting acceptances at favorable rates, and proposed that reserve banks should not buy acceptances at rates below the current rates at which member banks purchase them.¹

In the latter part of 1920, the authorities began to comment on the improvement of the distribution of acceptances. Reserve banks were apparently not carrying so large a proportion as in previous years.² Perhaps the Board was too optimistic in referring to the better understanding of the liquidity of acceptances, and the increased interest of member banks and savings institutions;³ reserve banks did not withdraw their support by any means, but increased efforts were made to interest potential investors. In 1921 the policy of non-interference was continued; the rate was maintained at a level high enough to discourage the sale of large quantities to reserve banks.⁴ This was not a particularly difficult task when banks were anxious to find safe investments that could easily be sold. Reserve banks commented on the large reduction in the return on such open market investments as compared to the reduction on other assets purchased by banks.⁵ By the latter part of 1922, however, there were renewed signs of efforts on the part of reserve banks to support the market, although the question of obtaining adequate investments to cover fiscal needs was also involved.⁶ Although the reserve banks were prepared to support the market in 1922, they also considered the volume of purchases in relation to the volume of reserve credit outstanding, and there was a disposition to substitute credit through the purchase of acceptances within limits for reserve credit withdrawn by the sale of securities.⁷ In 1923-25, the reserve banks continued to support the market, but they were not prepared to purchase large supplies without taking defensive measures and considering their credit policies: large purchases were fol-

¹ *Mim.L.S.*, 1920 (12), x-1837, pp. 186-187; *ibid.*, x-1906, p. 498.

² *Ibid.*, 1920 (13), x-2054, p. 1027; *C.F.Chr.*, 1920 (111), p. 2181.

³ *F.R.A.*, 1920, pp. 50-51.

⁴ *Boston R. B. Ann.*, 1921, pp. 15-17; *Mim.L.S.*, 1921 (15), x-3286, p. 1417.

⁵ *Mo. Rev. of N.Y.R.B.*, May, 1922; *ibid.*, June, 1922.

⁶ *Mim.L.S.*, 1922 (16), x-3311, pp. 104-105; *ibid.*, x-3392, p. 533.

⁷ *Proceedings*, October, 1922, II, 399-400. (Governor Strong's report.)

lowed by increases in the buying rate.¹ The authorities were aware that member banks could satisfy their needs more cheaply by selling acceptances than by rediscounting.²

The Federal reserve authorities have sometimes contended that purchases of acceptances in the open market "are essentially of a different character from dealings in Government securities, and in the influences that give rise to them they are in many respects similar to discount operations. In contrast to operations in Government securities, where the initiative of purchase or sale is taken by the reserve banks, sales of acceptances to the System are made largely on the initiative of member banks and dealers. . . ."³ Authorities did not adhere consistently to that position; Governor Strong pointed out that the reserve banks could by modifying their rates influence the volume of bills offered.⁴ Perhaps to some extent the reserve authorities were justified in taking the position that the initiative lay with the money market rather than with reserve banks. But reserve banks frequently have adjusted their rates when their portfolio of acceptances was increasing rapidly, and, also, reserve funds have constituted so important a part of the investment funds poured into the acceptance market, that the price offered by the reserve banks has generally been the dominant factor in the situation; they have been unwilling to desert the acceptance market when other investors were finding more profitable employments for their funds. They have been prepared to run the rate up appreciably, with the result that since dealers were unwilling to carry at old prices, the rate of creation of new bills might decline somewhat; but vigorous increases in the buying rate have not been forthcoming except in two important instances.⁵ The initiative lay with the banks and dealers. But the reserve banks were not passive, and fluctuations not only in the buying rate but to some extent in the rediscount rate determined both the profitableness of sales to the

¹ *Boston R. B. Ann.*, 1923, pp. 19-20; *C.F.Chr.*, 1925 (120), p. 1038. At this time, Warburg began to urge that reserve banks be allowed to rediscount finance bills drawn to aid Europe and that American banks be allowed to participate in such agreements. P. M. Warburg, *op. cit.*, II, 822-823.

² *F.R.B.*, 1925, p. 527.

³ *F.R.A.*, 1925, p. 7; cf. *Acc. Bull.*, May, 1926, pp. 9-10; A. C. Whitaker, "Federal Reserve Position and Policies," *American Economic Review, Supplement*, March, 1930, p. 95.

⁴ Hearings: *Stabilization* (69: 2), 1926, I, 317.

⁵ *F.R.A.*, 1924, p. 12; cf. the reports on the acceptance market in *Mim.L.S.*, 1925 (22).

reserve banks and rediscounts, and in some measure the volume of bills on the market.

In 1928-29, the acceptance policy had its most severe test, and the reserve authorities responded by purchasing acceptances in larger volume than ever before.¹ In the fall of 1928, purchases were greater than the amount required to meet seasonal needs, and hence the tension in the money market was somewhat relieved.² The reserve banks might have withdrawn their support by raising rates vigorously, thus compelling dealers to charge prohibitive prices for new bills or refuse to purchase; but actually the reserve banks proffered their facilities to holders of acceptances, in the fall of 1928 and 1929, and took restrictive measures only in the early months of 1929.³ Pressure was even brought to bear on western reserve banks to reduce their buying rates. Although reserve banks reduced their investments in acceptances in the first half of 1929, other investors were not required to increase their holdings by an equivalent amount;⁴ for the withdrawal of support by the reserve banks was reflected in some reduction in the volume of bills outstanding.⁵ In the midst of depression, the market was once more free of artificial support; but although reserve authorities have probably learned a lesson, we cannot be certain that when the investors in acceptances find it profitable to dispose of acceptances, the reserve banks will refrain from supporting the market.⁶ In truth, the reserve banks have absorbed a large volume of bills sold by foreign correspondents (1931-32) and by the market in 1933.

¹ Hamlin, of the Board, criticizes the reserve banks, which had been given permission to purchase acceptances in the fall of 1928 to meet the seasonal demand for credit, and then, in his opinion, purchased excessively. Governor Harrison, on the other hand, says that he preferred a higher buying rate. The point at issue is whether the rates in force in 1928 were an adequate weapon for checking the flow of acceptances to the New York Bank. Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 130, 166-167.

² In the years 1922-27, from August to December, reserve banks on the average put 181 millions of cash on the market through the purchase of bills and 131 millions through rediscounts and purchases of securities. *C.F.Chr.*, 1928 (127), p. 2170. In 1928, 300 millions of bills were purchased from August to November. *Ibid.*, p. 3341; *cf. F.R.B.*, 1928, p. 735.

³ *Ibid.*, 1929, pp. 95, 178, 244, 657; *C.F.Chr.*, 1929 (129), p. 1330. Acceptances have played a part in reserve policy before 1929. *Cf. Burgess in the Review of Economic Statistics*, 1930, pp. 19-20.

⁴ *C.F.Chr.*, 1929 (128), p. 1172.

⁵ *Acc. Bull.*, July, 1929, pp. 1-3; *cf. N.Y.R.B. Ann.*, 1929, pp. 12-14. Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 920.

⁶ *Mim.L.S.*, 1929 (31), x-6432, p. 252. (Address of Mr. Platt.)

Since 1921, reserve banks have held a very large proportion of the outstanding acceptances on their own or correspondents' account.¹ In 1927, 1929, and 1930-32, their holdings were below normal.² It has also been revealed that in recent years a much larger proportion of purchases are made from banks, a fact which seems to indicate that sales by member banks to reserve banks are substituted for rediscounts in a period of stringency.³ Member banks have held inappreciable amounts in the period since 1922, except in the years 1930-32;⁴ they have not supported the market because they have found other investments more profitable.⁵ Banks have been critical of the support of the acceptance market by reserve banks, both because dealers who do not contribute to the resources of reserve banks thus obtain accommodation on better terms than do members, and because the fulfillment of more important policies has thus been jeopardized.⁶

3. RATES ON ACCEPTANCES

The Board allowed reserve banks much latitude in determining rates on acceptances, for it was held that the development of an acceptance market depended on the capacity to adjust rates to

¹ W. W. Riefier, *op. cit.*, p. 46. Cf. *Acc. Bull.*, 1929, pp. 1-4; P. M. Brown, *op. cit.*, pp. 107-110.

² According to Willis, member banks late in 1928 or early in 1929 were holding but 25 millions of a total of 1,284 millions of acceptances outstanding and the reserve banks were holding 800 millions for their own and foreign account. *Mim.L.S.*, 1929 (30), X-6243, p. 170. Cf. *C.F.Chr.*, 1929 (128), p. 1311 and Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 435-449, 873, for a discussion of the distribution of acceptances. In the latter part of 1932 and the period in 1933 preceding the crisis, acceptances were almost exclusively in the possession of accepting banks and other elements in the market.

³ Hearings: *Stabilization* (69: 2), 1926, 1, 458. Willis and Steiner give the sources from which reserve banks purchased acceptances in the years 1919-24. Approximately two thirds were purchased from member banks and an appreciable proportion was sold by non-member banks and private bankers. H. P. Willis and W. H. Steiner, *op. cit.*, p. 494.

⁴ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 434-436, 449, 873-874.

⁵ F. I. Kent, "Defense of Federal Reserve Open Market Acceptance Operations," *Trust Companies*, 1925 (40), pp. 21-22, 132. Kent is critical of member banks for not supporting the acceptance market.

⁶ National City Bank, *Economic Conditions*, September, 1929, p. 125. "Without at this time attempting to pass upon the justice of thus permitting non-member acceptance dealers to borrow from the reserve banks at rates lower than member banks can demand on most of their eligible paper, one may question the effectiveness of contradictory measures of this sort, particularly in the light of what happened since their adoption."

those prevalent in other markets.¹ In 1915 the range of rates approved by the Board was from 2 to 4 per cent, but the actual rate was not much over the minimum rate.² In 1918 the Board commented as follows:

The rates on acceptances are subject to fluctuations reflecting accurately the varying conditions of the money market and consequently the Board has never fixed a definite rate for them but has prescribed maximum and minimum rates within the limitations of which the Federal reserve banks are permitted to purchase bills.³

At this early date the Board observed that the Federal reserve rate was followed closely by the market rate because ordinarily there were not sufficient funds available in the open market to absorb the acceptances offered.⁴ The Board established a special rediscount rate for bankers' acceptances for the first time in 1918; theretofore the purchases of reserve banks had been restricted largely to endorsed bills.⁵ In 1919 the Board commented:

The Federal reserve banks in their open market purchases have adopted the policy of keeping their buying rates more closely in line with the rates at which bills were offered in the open market by purchasing only at or slightly below those rates, taking into consideration the value of the bank endorsement required by Federal reserve banks, but which the bills did not bear ordinarily when they were sold on the outside.⁶

In the early part of the year, the governors had approved a policy of low rates for acceptances and the assurance of adequate credit for dealers at reasonable rates.⁷ The Federal Advisory Council approved a special rediscount rate for acceptances in 1920 so long as it was not abused, and suggested that reserve banks should not normally purchase acceptances in the open market below current rates.⁸ But by 1921 the Council was suggesting the repeal of the special discount rate, since it had not been used.⁹

In 1922 bills once more were being disposed of in large quantities to the reserve banks, and officials who objected to an artificial ac-

¹ *F.R.B.*, 1915, p. 44. See the first note to this chapter.

² *F.R.A.*, 1915, p. 5. The Advisory Council in 1916 interpreted the 2 per cent rate as an attempt to meet the competition of the market. *Ibid.*, 1918, p. 802.

³ *Ibid.*, p. 19.

⁴ *Ibid.*, p. 22.

⁵ *C.F.Chr.*, 1918 (107), p. 2419.

⁶ *F.R.A.*, 1919, p. 23.

⁷ *Mim.L.S.*, 1919 (10), X-1459, p. 188.

⁸ *F.R.A.*, 1920, p. 600. In 1920, the Board had ruled that purchases from accepting banks were not to be made at preferential rates. *Acc. Bull.*, June, 1921, pp. 7-8.

⁹ *F.R.A.*, 1921, p. 685.

ceptance market became outspoken in their demands for the withdrawal of support by the reserve banks.¹ Governor Strong's position was that the rate on acceptances was determined by the requirements of dealers, but he admitted that reserve banks ought to dispose of part of their portfolio of acceptances to outside investors; therefore the buying rate was increased gradually.² In 1923 Under-Secretary of the Treasury Gilbert, in a letter to Governor Crissinger, criticized the rate policy of the past: the preferential rate of the reserve banks for acceptances had virtually destroyed, he said, the market for acceptances; and he also objected to the offer of rates on discounted paper, much below market rates, asserting that the practice destroyed the significance of the buying rate.³

The recent history of the buying rate has been similar to that of the past. Riefler has commented as follows:

Under these circumstances, open market rates on eligible bills can never vary greatly from the buying rate established by the reserve banks so long as the acceptance market depends on the reserve banks to purchase an appreciable proportion of the acceptances that are outstanding.⁴

There has been much agitation to maintain a buying rate consistent with the discount policy,⁵ but it was not until early in 1929 that the buying rate was raised drastically to a level above the rediscount rate. It should be considered, however, that a relatively low buying rate does not necessarily justify the conclusion that the acceptance policy is destructive of the credit policy. The buying rate is to be considered in conjunction not only with discount rates, but also with the volumes of acceptances and securities purchased by reserve banks and the volume of rediscounts.

Reserve banks have been inclined to minimize their contributions

¹ *Proceedings*, October, 1922, II, 360, 409-410. *C.F.Chr.*, 1923 (116), p. 370. Warburg, however, was critical of the current rate on acceptances, which was too high, in his opinion.

² *Proceedings*, October, 1922, II, 369.

³ *Mim.L.S.*, 1923 (19), x-3807, pp. 673-676. "The Federal reserve banks at the same time have been engaged in an effort to establish a market for bankers' acceptances and have achieved some success, though frequently the buying rate at the Federal reserve banks has been so low as to undersell the open market, leaving the Federal reserve banks practically the only market for acceptances. . . . There is no real recognition given to paper enjoying an open market, and what has been done in the name of encouraging the market for acceptances has frequently tended to destroy it."

⁴ W. W. Riefler, *op. cit.*, p. 22.

⁵ *F.R.A.*, 1928, p. 230. (Recommendation of Advisory Council.)

to the determination of the buying rate. A statement of the New York Bank is representative:

The market rate on acceptances is not an artificial one in the sense that it is previously determined by the buying rate of the reserve banks. The rate at which it is expected reserve banks might be willing to buy bills at a future time doubtless is an element which the market considers in establishing its rates in times of fairly tight money or when a rise in money rates generally is expected, but the discount dealers' buying rates depend more importantly upon supply and demand, present and expected, and their view of the future course of rates; also, in times of easy money, upon the necessity of maintaining their portfolios at a reasonable volume so that they may supply their investing clients.¹

When the New York Reserve Bank asserts that rates are determined "more importantly by the supply and demand," it means that the reserve banks do not determine or control the buying rate; but this position is not justified. If the reserve banks normally hold one half of the acceptances outstanding, perhaps two thirds if the holdings on behalf of foreign correspondents are included, they necessarily exercise a very potent influence on the rate as they are easily the most important market for acceptances.² By withdrawing their support reserve banks can, indeed, raise the market rate on acceptances and thus contribute to a reduction of the supply outstanding; although the reduction may be of small proportions. Thus in 1928-29, when foreign conditions were unfavorable for the financing of short-term needs and foreign funds flowed into the acceptance market, increases in buying rates had little effect in discouraging the use of dollar acceptances. The reserve banks can exercise control of the rates within rather broad limits; but the effect on rates of a desertion of the market can be modified *only* to the extent that higher rates attract other investors or discourage the use of dollar acceptances. Throughout almost the entire history of the reserve system the reserve banks have held a large proportion of all acceptances outstanding, and for that reason rates have been lower, generally much lower, than they otherwise would have been.

Foreign central banks have also constituted an important part of the acceptance market. Reserve banks, however, both because of the fact that they endorse all such bills purchased and because they may be forced to purchase these bills in a crisis — as they were in 1931-32 — in truth may be held to contribute jointly the funds

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 880; cf. pp. 879, 881.

² Consult Chart VI.

supplied by foreign central banks. Had the reserve banks not absorbed a large part of the bills redeemed by the foreign banks in 1931-32, the acceptance rate would have soared, although its rise would soon have been checked by purchases of domestic investors and a reduction in the financing by the use of acceptances. Also, reserve banks in the future may hold an even larger proportion of the total acceptances outstanding if the doubts concerning the wisdom of encouraging the investment in dollars by foreign banks, expressed by leaders of the reserve system, are given practical effect.

It does not follow that reserve banks by controlling the market rate on acceptances can completely control the volume of acceptances offered to them. But this is not to be expected. We must consider the fact that a period of high bank rates is generally characterized by an increased volume of rediscounts. On the same test, the reserve-bank control of the acceptance market is not to be minimized, for an increase of the buying rate above the market rate results in a reduction in the supplies offered; and a reduction of rates relative to market rates brings increased offerings. The difficulty is that reserve banks cannot accurately estimate the increase or reduction in the volume of acceptances offered to them with changes in the buying rate.

Perhaps this point explains in part the numerous failures to carry through an acceptance policy consistent with other investment policies of reserve banks.¹ Thus in the second half of 1922 the increase in holdings of acceptances was large and perhaps contributed to an immoderate easing of the market. In the first half of 1923 acceptance holdings remained relatively stable: a failure to liquidate at this season of the year is equivalent to a large expansion, and reserve banks were attempting to restrain the money market. In the first half of 1927 the decline of holdings was below the seasonal decline and thus made the introduction of an easy money policy more difficult. The seasonal decline in 1928 was slow in coming, thus impairing the effectiveness of the open market policy; and the large seasonal increase in 1928 has already received attention. In the first half of 1929 it may truly be said that the acceptance policy not only did not frustrate open market policy but constituted the most important weapon of restraint.²

¹ See chart, *Hearings: Operation of Banking Systems* (71: 3), 1931, p. 814.

² The reader is referred to Charts VI and VII and pp. 757-760 where the relation of rates and holdings of acceptances by reserve banks, as well as the fluctuations in holdings by reserve banks, are discussed.

Stringency and rising rates on acceptances not only influence the volume of acceptances outstanding and the volume offered to reserve banks but also are reflected in a tendency on the part of banks to increase their sales to reserve banks. Banks sell increasing amounts as they encounter more opposition to rediscounts and additional obstacles to sales in the open market. Thus in the latter part of 1927 and the first eight months of 1928, *member banks* were disposing of an abnormally large proportion of the acceptances purchased by reserve banks.¹ Also dealers are more inclined, when rates are tending upwards, to sell outright than to borrow on repurchase agreements.²

Reserve banks, again, are more inclined in such periods to purchase acceptances from local banks and dealers:³ monetary conditions being strained, they prefer to support their own markets. Normally all reserve banks purchase. Thus may be explained the very large purchases by the New York Bank in the latter part of 1928. Other reserve banks were not inclined to participate so much as usual.⁴

4. PROBLEM OF THE DISTRIBUTION OF ACCEPTANCES AND OTHER EARNING ASSETS AMONG RESERVE BANKS

The Federal Reserve Act provides for inter-reserve bank accommodation, and the Board may compel one reserve bank to discount for another. In the years 1918-21, inter-reserve bank borrowing assumed very large proportions. Movements of Treasury deposits, war and post-war financing, seasonal movements of large dimensions, and, in the latter part of this period, the unfavorable economic conditions in the South and West, account for the proportions which these movements assumed.⁵ The distribution of acceptances is part of the problem of inter-reserve bank accommodation and should be considered in relation to it.⁶

The New York money market was affected adversely by the early efforts of the Treasury to finance the War.⁷ By May, 1917, the Board's memorandum on the procedure to be followed by a reserve

¹ Hearings: *Operation of Banking Systems* (71: 3), 1931, p. 893.

² *Ibid.*, p. 888.

³ *Ibid.*, pp. 886-889.

⁴ *Ibid.*

⁵ *F.R.A.*, 1918, p. 3.

⁶ Consult Chart V and the discussion on pp. 753-757.

⁷ *F.R.B.*, 1917, p. 920.

bank in obtaining rediscounts from another reserve bank had been approved by all reserve banks but Chicago.¹ The plan did not interfere with the right to participate in purchases or discounts of notes or acceptances made through the agency of another reserve bank without the latter's endorsement. In the next few months, however, the necessary distribution of earning assets between reserve banks was made through the transfers of bills;² and early in 1918, the Board announced that reserve banks had begun to rediscount for one another: "The result has been to maintain an even and steady apportionment of reserve funds throughout the country and to avoid, as in the past, any relative shortage."³ Later, the Board commented as follows: "Under the Federal Reserve System, as has been previously explained, it is the Board's policy, to make, so far as practicable, an adjustment of paper among Federal reserve banks such as will bring about a relatively uniform reserve condition at all Federal reserve banks."⁴ Thus, in the first half of 1918, the main reliance was placed in the movement of acceptances between reserve banks rather than inter-reserve bank rediscounts.⁵

By 1918 several reserve banks had agreed to participate in the purchases of acceptances in other markets, and others had made agreements with the New York Bank to purchase acceptances originating in their own market and sold in New York. Several were prepared to purchase acceptances from member banks in their district if the latter were unable to sell in the open market.⁶ In the years 1919 and 1920, four or five reserve banks carried a disproportionate share of the burden of supporting the acceptance market;

¹ *Mim.L.S.*, 1917, x-212, June 15, 1917.

² *F.R.B.*, 1917, p. 581.

³ *Ibid.*, 1918, p. 7.

⁴ *Ibid.*, p. 487.

⁵ *Ibid.*, pp. 590, 690. Governor Harding commented as follows on sectionalism: "There is no longer any such thing, because under the operations of the Federal Reserve System, if the banks in one Federal reserve district are unduly expanded, or if their credits outstanding are burdensome, they go to the Federal Reserve Bank and rediscount, and the resources of that bank can be built up under the system of inter-bank discount." *Ibid.*, p. 603.

⁶ *F.R.A.*, 1918, p. 3; *F.R.B.*, 1918, p. 1054; *Dallas R. B. Ann.*, 1917, p. 11; *ibid.*, 1919, p. 9; *St. Louis R. B. Ann.*, 1918, p. 9; *Chicago R. B. Ann.*, 1918, p. 7; *San Francisco R. B. Ann.*, 1919, p. 9. In its 1919 *Report*, the Board announced that the Cleveland, Chicago, Minneapolis, Kansas City, and San Francisco Banks had agreed to participate daily in open market purchases of the New York Bank under an agreement approved by the Board, and the other Banks had undertaken to repurchase acceptances originating in their own district and sold to the New York Bank. *F.R.A.*, 1919, p. 6. In 1920, the Board announced that the Cleveland, Chicago, and San Francisco Banks had participated daily in purchases. *Ibid.*, 1920, p. 49.

the acceptances were sold for the most part in New York, but they represented transactions that originated chiefly in other sections of the country, and it may be said that the reserve banks in the East (New York, Philadelphia, Boston and perhaps Cleveland and San Francisco) thus used their resources to finance other sections of the country.

In 1919 the New York Bank purchased 1,951 millions of acceptances, of which 739 were allotted to other reserve banks. The San Francisco, Cleveland, Chicago, and Minneapolis Reserve Banks were in that order the largest participants in these purchases. Exclusive of these purchases in the New York market, several reserve banks purchased in their own: the Boston Reserve Bank, for instance, purchased 361, Cleveland 82, Chicago 132, and St. Louis 88 millions.¹ Other purchases by reserve banks were on a smaller scale. The allotments to other reserve banks by the New York Bank are to be distinguished from acceptances purchased by one reserve bank from another. In the years 1917-19, these purchases amounted to 168, 337, and 425 millions in the successive years. In 1919 the San Francisco, Cleveland, Chicago, St. Louis, and Kansas City Banks were the largest purchasers from other reserve banks.² The major movements in 1919 were in rediscounts between reserve banks, rather than in movements of acceptances; this fact is evident from an inspection of the figures for the inter-district movements of funds. Approximately one third of the total is to be accounted for by purchases or allotments of acceptances.³ The figures for 1920 were not unlike those for 1919.⁴ The magnitude of the operations was greater; 733 millions of acceptances were allotted by the New York Bank, and the Cleveland, Chicago, and San Francisco banks were virtually the only participants, taking approximately equal amounts. Purchases of acceptances were on a smaller scale, total-

¹ *Ibid.*, 1919, pp. 6-7.

² *Ibid.*, p. 7.

³ *Ibid.* Striking figures are the following: The New York Bank obtained 313 millions through rediscounts and the sale of acceptances and obtained 996 millions in all if the large volume of acceptances purchased in New York but allotted to other banks and 56 millions of discounts and purchases are considered. The Chicago Bank discounted or purchased 1,424 millions of bills of other reserve banks. The Philadelphia and Richmond Banks obtained 827 and 838 millions from other districts.

⁴ *Ibid.*, 1920, p. 50. The Cleveland Bank provided 1,121 of the total of 3,140 millions of inter-reserve bank accommodation, and the Boston Bank accounted for 986 millions. New York and Richmond with rediscounts and sales of 764 and 700 millions were the largest borrowers. Cleveland's advances to other reserve banks were in excess of its advances to member banks in the fall of 1920. *F.R.B.*, 1920, p. 911.

ling 213 millions; the largest purchasers were Cleveland, San Francisco, Philadelphia, and Boston in that order. Acceptances accounted for less than one quarter of the total movement of inter-reserve bank funds. In July, 1921, several banks were still borrowing large amounts from other reserve banks. Thus the actual reserve ratios of the Dallas and Minneapolis Banks were 40.5 and 39.6 per cent; but if adjustments were made for cash obtained from other reserve banks, their ratios would have been 16.6 and 26.8 per cent, and Boston and New York Reserve Banks would have had a reserve equal to 81 and 75 per cent of their deposit and note liabilities, instead of 77 and 72 per cent, their actual ratios.¹ In the first seven months of 1921, the reserve banks adjusted their position through rediscounts rather than movements of acceptances, as might be expected since the eastern banks were lending almost exclusively to those in the West and South. The volume of accommodation of eastern banks was larger than it seemed, for in purchasing acceptances they financed the rest of the country. Richmond and Dallas borrowed four fifths of the total advanced through inter-reserve bank rediscounts, and Minneapolis and Atlanta most of the remainder. Cleveland and New York advanced most of this money; Boston also was a generous lender.²

The reserve authorities proclaimed a policy of equitable distribution of reserves, but as early as 1919 there were large differences that were corrected only in part by the inter-reserve bank movements of funds.³ In 1919 and the early part of 1920, New York was a heavy borrower, but later became an important lender. In 1919 Chicago, San Francisco, and Minneapolis were the most generous lenders, and Chicago's advances to the other reserve banks were especially large. The New York, Philadelphia, Richmond, and Dallas Banks borrowed most heavily. Boston, New York, and Cleveland were the most important creditors in 1920; and Chicago, St. Louis, Kansas City, Richmond, Dallas, and Atlanta were the heaviest borrowers. Cleveland, throughout this period, was a generous lender.⁴ In 1921 Boston and New York advanced most of the cash required by Richmond, Atlanta, Minneapolis, and Dallas.⁵

New York was forced to borrow as a result of large fiscal and industrial operations in the financial centers in the early months of

¹ *F.R.B.*, 1921, p. 1031.

² *Ibid.*, 1032.

³ *Ibid.*, 1922, p. 31. (Reserve ratios of each bank, actual and adjusted.)

⁴ *Ibid.*, 1920, pp. 1041-1043.

⁵ *Ibid.*, 1922, p. 27.

1920, and later was affected adversely by gold movements and withdrawals of correspondents. Borrowings would have been large later in the year 1920 had not relief been obtained by movements in Treasury deposits and redemption of Treasury certificates.¹ The New York Reserve Bank carried a disproportionate volume of acceptances and also had to support other districts when banks began to withdraw balances. It therefore cannot be said of the New York Bank in the same manner as of other reserve banks that its sales of acceptances, or rediscounts with reserve banks, were a means of obtaining resources from other districts.

Reserve officials were bitter in their discussions of the problem of inter-reserve bank accommodation. As early as 1919 the Board was compelled to intervene and request other reserve banks to purchase acceptances held by the New York Bank.² In March, 1919, the Board had requested that all inter-district sales of bank acceptances be made through or under participation arrangements approved by the Board.³ A committee of governors recommended in 1919 and 1920 that reserve banks should extend reasonable accommodation to dealers and that all reserve banks should support the bill market, each bank assuming a fair share of the burden of financing seasonal movements; it was pointed out that at present the burden was borne almost exclusively by five reserve banks. Apparently dissatisfied with the control of the New York Bank, the committee of governors proposed the creation of a committee to consider market conditions and appropriate rates for acceptances. The governors' committee was not able, however, to agree on a plan by which each reserve bank would take its fair proportion of bills under all circumstances.⁴

The Boston Reserve Bank apparently objected to further purchase of bills in the fall of 1920, although only Philadelphia, Cleveland, and itself were in a position to contribute; six or seven reserve banks in debt were not in a position to purchase acceptances from the New York Bank. Governor Case of the New York Bank balked at the prospect of purchasing for the New York Bank 30 to 40 millions of acceptances on the occasion of the repayment of a large foreign loan, when dealers would be forced to repay banks and would

¹ *F.R.A.*, 1920, pp. 47-48; *C.F.Chr.*, 1920 (111), p. 1423; *ibid.*, 1921 (112), p. 111.

² *Ibid.*, 1919 (109), p. 1933. (Letter of Governor Harding to Senator Owen.)

³ *Mim.L.S.*, 1919 (10), x-1463, p. 203.

⁴ *Proceedings*, October, 1920, I, 32-36.

require assistance from the reserve banks; the reserve of the New York Bank was already deficient.¹ Officials of both the Boston and Chicago Banks were not disposed to cooperate; they contended that rates were too favorable to dealers, and they would purchase bills only if rates were increased.² The Chicago Bank was also not in a position to increase its investments.³ The Chicago and New York Banks, moreover, were at odds over the question of the propriety of sales of bills by reserve banks. Case contended that a reserve bank is the final resting place, that sales by a reserve bank are equivalent to an increase in the buying rate, that sales of reserve banks would make the reserve banks the market instead of the stabilizer, and that large banks objected to the practice of hawking their names on the market. On the other hand, the Chicago Bank held that it had full property rights in acceptances purchased and that there was a scarcity of good bills on the market.⁴

Again, reserve officials disagreed concerning the proper policy for inter-reserve bank loans. Governor Norris of the Philadelphia Bank said that it was a debatable question whether any reserve bank was entitled to rediscount facilities unless it had first exhausted its powers of contraction by raising its rates to a maximum. A reserve bank, in his opinion, should not be allowed to borrow at 6 and charge its member banks 6 when the creditor reserve bank charged its members 7 per cent; the policy of a reserve bank should be controlled primarily by the condition of its own reserves, not by the condition of the reserves of the System. The policy of approximate equality of reserves should not relieve reserve banks of the responsibility of averting rediscounts with other banks as far as possible.⁵ Dr. Miller also proposed a penalty rate for inter-reserve bank borrowing,⁶ and Governor Harding suggested an inter-reserve bank borrowing rate, which might be used as a weapon by reserve banks in their dealings with members; he also proposed a limit on borrowing between reserve banks.⁷ But the Governors' Conference objected to the imposition of any limit on borrowings between reserve banks and proposed that the rate on inter-reserve bank loans be uniform; the governors attacked the proposal that member banks be forced to pay a rate equal to that paid by the reserve bank for its loans.⁸

¹ *Proceedings*, October, 1920, I, pp. 49, 58-59.

² *Ibid.*, pp. 37-39, 46, 64-65.

³ *Ibid.*, p. 54.

⁴ *Ibid.*, pp. 40-43, 107-111.

⁵ *Ibid.*, pp. 127-132.

⁶ *Ibid.*, pp. 181-183.

⁷ *Ibid.*, pp. 115-116.

⁸ *Ibid.*, II, 350. The Federal Advisory Council commented as follows: The theory at first was that the rate paid by reserve banks should be lower than that charged to

Ramsey of the Dallas Bank presented the viewpoint of the borrower. The reserve of his bank had declined from 77 per cent in the winter to a vanishing point later in the year. Approximate uniformity in rates charged by reserve banks was, he held, essential; the credit resources of the whole System should be intelligently and sympathetically utilized to meet the needs of every section of the country; and the Board ought to reserve to itself the control over rates on inter-reserve bank discounts. Moreover, the rate for inter-reserve bank accommodation should not be above the rate fixed by the reserve bank for advances to its members, and it might be less. The strong position of the Cleveland and Boston Banks was held to be explainable by local conditions, not by differences in the methods of credit control.¹

In the last ten years, the problem of inter-reserve bank accommodation has not loomed ominously; the development of a System open market policy and other devices for transferring cash between districts reduces the importance of direct borrowing between reserve banks. The New York Bank, however, was forced to rediscount with other reserve banks on the eve of the banking holiday in 1933.

5. CONCLUSION

The attempt on the part of reserve authorities to develop an acceptance market was compatible with their other policies in the years preceding our entry into the World War; cheap money was dangerous, it is true, but the reserve banks deemed it necessary to obtain a sufficient volume of investments to cover expenses and,

member banks, for the endorsement of the reserve bank should be considered. Recently this idea was abandoned and rediscount transactions between Federal reserve banks are made at rates established for member banks by Federal reserve banks extending accommodation. The question now is whether a reserve bank which retains a large reserve as a result of a conservative policy, should extend accommodation to member banks in other districts through the reserve banks at the same rates as to members in its own district which have received reduced accommodation. *F.R.A.*, 1920, p. 607, September 21, 1920.

¹ *Proceedings*, October, 1920, I, 118-126. The Federal Reserve Bank of Cleveland expressed its position clearly in a resolution passed in November, 1920. Other reserve banks were indebted to the Cleveland Bank to the extent of one and a half times the volume of its advances to its member banks; these advances had been made under the direction and authority of the Federal Reserve Board and could not be made except on the basis of the reserve deposits of its member banks; and hence the Bank requested protection in the type of collateral offered by the borrowing bank. *Mim.L.S.*, 1920 (13), x-2055a, p. 1029.

perhaps, pay dividends. But war requirements took precedence in 1917, and during the War the buying rate on acceptances was maintained above not only the market rate but that on loans secured by Treasury certificates. Apparently anticipating the heavy flow of acceptances to them in the years 1919 and 1920, the reserve banks in 1918 established a special rediscount rate for acceptances appreciably lower than the buying rate. Although the volume of sales of acceptances to reserve banks in 1919 and 1920 was undoubtedly affected by the high level of the buying rate, banks continued to sell acceptances in large quantities under relatively unfavorable conditions in order to escape the pressure that reserve banks exercise when members apply for rediscounts.

In 1921 the money market once more suffered from a scarcity of desirable assets, and dealers and other private investors of acceptances were easily able to absorb available supplies of acceptances at low rates. Reserve officials became unduly optimistic concerning the broadening of the market and the increased interest of banks in acceptances, as they did in 1930; a stiffening of rates in 1922 was followed by increased sales to reserve banks and a failure to increase rates adequately or rapidly enough to carry through a declared policy of buying rates higher than market rates for acceptances. Authorities in the years following 1921 may have discouraged sales to reserve banks, and also, therefore, impaired the development of the acceptance market. But in their rate policy, in the increased discretion bestowed on reserve banks in purchasing acceptances, and in the liberalization of eligibility rulings, reserve authorities displayed an anxiety to nurture the acceptance market.

But this is far from saying that acceptance policy was not considered in conjunction with the general credit situation; those who assume that the acceptance policy was used to promote a sound credit policy for the first time in 1929, make an egregious error. As far back as 1917, when credit policy required a reduction of the volume of acceptances held by reserve banks, the latter reduced their portfolios. Governor Strong in 1922 revealed that the open market committee determined the volume of its sales and purchases of securities in conjunction with the problem of the volume of acceptances to be purchased, which can be controlled by proper movements in the buying rate. Undoubtedly, reserve authorities were more willing to sacrifice the acceptance market or the interest of dealers in acceptances to the exigencies of a proper credit policy,

than they had been in the early years of the System. Their problem was to adjust rates on the basis of the volume of acceptances offered the reserve banks in relation to the volume that might safely be purchased. The acceptance, the open market, and the discount policies were one, and it was not necessary to destroy the acceptance market in order to assure a proper credit policy. If we recall that reserve authorities at a relatively early stage in the post-deflation period accepted the position that they could not control the volume of earning assets, it will be at once apparent that the problem was the manner in which the money market should obtain the facilities of the reserve banks. If restraint were necessary, the instrument was an increase of member-bank indebtedness; if restraint were to be averted, the buying rate might be reduced and acceptances purchased in large quantities, as was usually done in the fall to meet seasonal needs; if no restraint were necessary and expansion were the objective, the initiative would be entirely with the reserve banks and they would purchase securities and reduce rates. It may also be pointed out that the sales of acceptances, to reserve banks, which are disposed of to an important degree by banks, involve an element of restraint; member banks thus give up their most liquid asset and borrowing is made more imminent.

Recent criticisms of acceptance policy have gone too far. The reserve policy of 1928 might be criticized; but it seems to me that any criticism, if tenable, should be directed toward the credit policy of the reserve banks, which was merely expressed in one form in favorable buying rates in 1928. The objective of easier money rates and adequate accommodation to trade and industry might have been achieved as effectively by a proper open market policy. Without a doubt the authorities were in error to assume, or at least to pretend to assume, that reserve credit placed at the disposal of investors in acceptances would redound merely to the benefit of the acceptance market.¹ Perhaps the objection may be raised against the acceptance policy of 1928, frequently tendered in 1919 and 1920 by reserve officials, that the sale of acceptances enabled members to escape the pressure of reserve banks—an escape especially attractive in a period characterized by a more careful scrutiny of rediscounts.

¹ National City Bank, *Economic Conditions*, September, 1929, pp. 124-125; *Mim. L.S.*, 1929 (30), X-6243, p. 170. (Willis in the *New York World*, February 17, 1929.) It is pointed out that the banks may sell acceptances and use the proceeds for speculation.

Reserve banks have been willing to participate in the purchases of acceptances in the New York market when the pressure for accommodation was not too strong in their own districts. In 1920, several reserve banks expressed in no uncertain terms their unwillingness to support the acceptance market; and when acceptances were beginning to flow toward the reserve banks in large volumes once more in 1922, a note of caution was sounded by several reserve officials. The problem of acceptances is not only a problem of credit control for the System; it also raises the question of the distribution of responsibility between the several reserve banks and is an obstacle to the assurance of any equitable distribution of reserve facilities among member banks. Also, large purchases and maturities of acceptances are peculiarly the concern of the New York money market, where the transactions are consummated, and resulting ease or stringency is felt first and most violently in New York. The New York Bank sets the buying rate for acceptances purchased in the New York market; in the past, its joint responsibility for leadership of both the open market for securities and the rate on acceptances assured a measure of unity in open market operations and the establishment of buying rates; but whether conflicts will be averted in the future is now questionable in the light of the assumption of leadership of the open market policy by the Board and the *twelve* reserve banks. On the other hand, the range within which reserve banks may set the buying rate has been narrowed; hence they exercise less discretion in setting the buying rates than in earlier years; and, besides, the buying rate has always been set with some consideration of the open market policies.

In the years 1919-21 the problem of the proper distribution of acceptances was complicated by the more important problem of inter-reserve bank rediscounts and sales of acceptances other than through the allotment system. In these years acceptances distributed among reserve banks accounted for approximately one fourth of the total amount of accommodation extended by them to each other. The pressure on reserve banks participating in the allotments of acceptances was intensified by virtue of the fact that those in a debtor position had to withdraw their support of the acceptance market.

A reduction of reserves to a low level for any one reserve bank was followed by the exercise of restraint in other markets, for under the declared system of equalization, other reserve banks were under

pressure to contribute to the support of the districts subjected to unusual demands. It would be extravagant, however, to assume that the twelve reserve banks therefore operated as a unit.¹ Reserve banks were reluctant to request accommodation from each other; creditor banks expressed dissatisfaction with the practice; and the intervention of the Board, despite Harding's hesitancy, was more than once required.² That creditor banks maintained reserves of 70 to 80 per cent and higher, while debtor banks were only given accommodation adequate to maintain reserves at the minimum level of 40 per cent, is ample evidence of the persistence of regionalism in the Federal Reserve System.

¹ Compare T. E. Gregory, "The Banking System of the United States," *Journal of Institute of Bankers*, 1929 (50), p. 565.

² Cf. Hearings: *Agricultural Inquiry* (67: 1), 1921, Pt. 13, pp. 276-277.

CHAPTER XIX

GOLD POLICY, 1914-20

I. CONCENTRATION OF GOLD SUPPLIES

IN THE years preceding the enactment of the Federal reserve legislation, bankers had objected to the proposal that they entrust their reserves to central or regional banks; and that opposition accounts in part for the failure to provide for the concentration of gold with the reserve banks. Warburg, a leading figure in the early history of the Federal Reserve System, conceived of the distribution of reserves between the reserve and member banks as a mistake, and used every effort to modify the system introduced in 1914.¹ In its early policies, the Board reflected the attitude of Warburg and made every effort to collect as much gold as possible.

In a report of the committee of reserve officials on rediscounts in 1914, it was held that the concentration of gold in the reserve banks would enable the country to meet any emergencies on the exchange market and provide member banks with a maximum capacity to lend.² Testifying in 1921, Governor Strong said that reserve banks embarked as early as December, 1914, on the policy of collecting monetary gold through the issue of notes.³ Governor Strong announced publicly in June, 1915, that "gold reserves should be considered as an insurance fund established to demonstrate the ability of the debtor to pay in gold." He commented on the practice of issuing notes against gold and on the magnitude of surplus reserves of member banks.⁴ Governor Seay anticipated inflation: for ap-

¹ Warburg's position was as follows: notes ought to replace gold in circulation. When reserve notes had been issued against gold and lawful money before 1917, the gold became available only as it was exported; otherwise, the gold obtained in exchange for notes was not included in reserves. In his opinion, gold should be acceptable as collateral as is commercial paper, and the reserves and the lending power of the System should be increased as gold is offered to the reserve banks. Willis objected to the issue of notes against lawful money or gold on the grounds that the practice was incompatible with the requirements of elasticity. P. M. Warburg, *op. cit.*, I, 149-150, 703-704, 712, 729-730; H. P. Willis, *op. cit.*, pp. 858-860; H. P. Willis and W. H. Steiner, *op. cit.*, p. 122.

² *F.R.A.*, 1914, p. 172.

³ B. Strong, *op. cit.*, p. 69.

⁴ *C.F.Chr.*, 1915 (100), p. 2125.

proximately 450 millions of reserves had been released at the opening of the System; approximately 730 millions now included as reserves would not be available when reserves with agents no longer counted as reserves. Anticipating inflation in the immediate future and contraction later, Seay suggested that reserves with agents should no longer be included as cash; in other words, the day on which balances with agents were no longer to count as reserves was to be moved forward by two years.¹ Accepted theory on the rigid relation of the volume of bank deposits and available reserves ought to be modified in the light of the manner in which banks held surplus reserves in the years 1914-16 in anticipation of the change of reserve requirements.² For Seay's fears were ill-founded.

By 1916, the reserve authorities were seriously concerned with the problem of the control of gold supplies, for the United States had imported a large volume of gold, and the possibility of war was not remote.³ The Board would have preferred to amend the Act so that no member bank would be required to retain part of its reserve in its vaults, but Congress was not sympathetic with the proposed legislation at that time.⁴ Congress agreed in August to an amendment providing that member banks might, on the approval of five members of the Board, deposit with the reserve bank part of the reserves that they were required to keep in their vaults.⁵ Member banks, however, displayed no great enthusiasm in depositing gold as pro-

¹ *C.F.Chr.*, 1915 (101), pp. 1335-1336.

² The Federal Advisory Council reported in 1916 that the surplus reserves of New York banks, although large, were not more than adequate to meet possible withdrawals of inland banks. It was reported that twelve of the largest Chicago banks held reserves approximately equal to the reserves required, and that in general the excess of reserves was composed of balances with banks and hence would not be available later. *F.R.A.*, 1918, pp. 804-808.

³ Early in the year, Jay of the New York Bank complained of the losses of gold resulting from the payment of gold for notes and silver; gold supplies dwindled in spite of large imports. *C.F.Chr.*, 1916 (102), p. 639. The Board expressed a desire for the concentration of all legal reserves in the reserve banks; but the time was not yet propitious. It pointed enviously to the 815 millions of reserves in the vaults of member banks (545 millions in gold) and the 800 millions of gold at the disposal of the public. *F.R.A.*, 1916, pp. 25-27. The Federal Advisory Council still adhered to the opinion that large tills were necessary so long as many banks were not members of the System, and large adverse balances at the clearing house had to be covered in cash. *F.R.A.*, 1918, p. 809.

⁴ U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64: 1), 1916, pp. 83, 88.

⁵ U. S. Senate Report No. 481, *Amendments to Federal Reserve Act*, and U. S. Senate Document No. 533 (Conference Report) (64: 1), 1916.

vided by this amendment.¹ An amendment which called for an extension of the scope of reserve-bank clearings probably was more effective in concentrating gold supplies. A proposal to allow the issue of notes directly against gold as was currently done in a devious manner was not accepted by Congress until June, 1917; this practice was deemed necessary because of the scarcity of paper eligible for collateral and the need of taking gold out of circulation.² The proposal was embodied in a Senate Bill of March, 1916, but was opposed by the House Committee.³

In a public address of October, 1916, Dr. Miller said that the reserve banks required 400 millions of additional gold, which member banks could easily spare, in order that future losses to foreign countries might be countenanced without misgivings.⁴ The Board expressed its attitude clearly in the 1916 *Report*:

The Board is not, however, unmindful that large accretions of gold may induce a rapid and dangerous expansion of our credit structure, and in outlining the policy of the Federal reserve banks and in considering amendments that, in its opinion, should be made to the Federal Reserve Act, the Board had been impressed with its duty to keep in close touch with the situation and to control as far as possible conditions resulting from either an excessive inflow or outgo of gold. . . . The United States has today a plethora of gold. While the Board does not believe that further importations of gold will of necessity prove a source of danger or disturbance, it nevertheless believes it desirable, in order to avoid possible danger and misconception of the situation, to call particular attention to the actual reserve conditions and to make clear that the inflowing gold should be controlled and not be permitted to become the basis of abnormal loan expansion. . . . The amendments proposed are designed to provide means of controlling an overextension of loans based on new accretions to our gold stock and to provide for the mobilization and concentration of the gold holdings

¹ Thus on November 17, 1916, member banks held 1,026 millions of excess reserves; but only 68 millions of the excess were deposited at the reserve banks. *F.R.A.*, 1916, p. 23; *San Francisco R. B. Ann.*, 1916, p. 451.

² U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64: 1), 1916, pp. 20-21; cf. U. S. House Report No. 35, *Amendments to Federal Reserve Act* (65: 1), 1917, pp. 2-3. The scarcity of commercial paper was also stressed. U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64: 1), 1916, pp. 71-85.

³ It was provided that gold might be used as collateral against notes and at the same time be included as reserve against the notes. Other collateral requirements were also liberalized. U. S. Senate Banking and Currency Committee, Hearings: *Amendments to Federal Reserve Act* (64: 1), 1916, pp. 5, 63-65; Public-No. 270-64th Congress [H. R. 13391], 1916.

⁴ *C.F.Chr.*, 1916 (103), p. 1562.

of the United States so that the flow of gold back to Europe or to South America, or to the Orient, may be arranged without forcing any violent contraction of loans or causing undue disturbance to legitimate business.¹

It is to be noted that the Board justified the policy of concentration on the grounds that inflation and deflation would thus be averted.² In the latter part of 1916 and the early part of 1917, the authorities made some efforts to offset imports of gold by a reduction of earning assets of reserve banks; but it will be recalled from the discussions of open market operations that reserve authorities have rarely attempted to offset imports of gold, although exports of gold have more frequently been followed by compensatory movements. The authorities did not clearly reveal the manner in which they were to prevent inflation and deflation; they did not distinguish what has since been designated as primary and secondary inflation. They did not acknowledge their impotency: their assets were far too small to offset any large inflow of gold, and the sterilization of gold, once it was received by the reserve banks (secondary expansion), was not so important as it seemed, for the banks in the large cities which acted as reserve agents were responsible for a measure of secondary expansion; and, most important, the reserve banks expanded rapidly (secondary expansion) in the years 1917-20.

It has been maintained that the concentration of reserves and the exclusion from reserves of cash that might be held in tills, as provided by the amendments of 1917, made a fundamental change in the system by which the central bank was converted from an equalizer or governor into a boiler or steam-generating plant.³ I am inclined, however, to take Keynes' position that the possibility of shifting cash from the central bank to tills may be a source of embarrassment to a central bank, and hence member banks should not be entrusted with such powers.⁴ On the other hand, the problem is peculiarly important in Great Britain, for Bank of England notes constitute reserves of the Bank of England, and therefore banks can increase their tills at the expense of the Bank of England. In the United States, similar results would have followed if members had increased their tills (part of their reserves then) by drawing gold.

At any rate, special efforts were made to acquire large supplies

¹ *F.R.A.*, 1916, pp. 2-3, 23-25.

² *F.R.B.*, 1917, p. 98.

³ H. P. Willis, *op. cit.*, pp. 1179-1182.

⁴ J. M. Keynes, *op. cit.*, II, 75, 232; cf. P. M. Warburg, *op. cit.*, I, 158-159.

of gold;¹ and the Board justified in part its warning to member banks against investments in foreign securities by the announcement that it could control the inflation resulting from gold imports.² The exigencies of war made it possible in 1917 to obtain the consent of Congress to the proposed changes; and it was provided that reserves were to be concentrated in the vaults of the reserve banks, that notes might be issued against gold, that the collateral against notes outstanding was to be 100 instead of 140 per cent as provided in 1914, and that the gold reserve against notes in circulation was to be included in the collateral.³ In order to get unanimity in the Board, it had been agreed that Federal reserve notes should not be included as reserves and that member banks could hold varying amounts of till money at their own discretion.⁴ These amendments were opposed by many interests, and later inflation has frequently been ascribed to them.⁵ Elsewhere the opinion has been expressed that the extent of inflation in the war period was determined by the

¹ Thus the New York Bank paid the cost of shipping gold to it and prepaid the cost of shipments of notes. *N.Y.R.B. Ann.*, 1916, p. 16. A reserve bank was reprimanded for requesting gold instead of notes for the purpose of moving crops. *F.R.B.*, 1916, p. 512.

² W. P. G. Harding, *The Federal Reserve System as a New Factor in National and International Finance* (Address of December 14, 1916), pp. 18-20; *F.R.B.*, 1916, pp. 661-662. Later, the Board modified its position and was not averse to moderate investments in foreign securities, for imports of gold had been large since November. *C.F. Chr.*, 1917 (104), p. 910. Also cf. A. C. Miller, *Making Ready for New Financial Tests* (Address in Cleveland, February, 1917), especially pp. 26-40. The term, "free gold," was used at this early date but not in its current connotation; authorities then merely meant that the reserve banks ought to have adequate supplies of gold to meet the needs of future expansion, maintain the gold standard and check the later decline of prices.

³ See the U. S. House Report No. 35, *Amendments to Federal Reserve Act*; Conference Report (House Report No. 73), June, 1917 and Public-No. 25-65th Congress [H. R. 3673]. The Act followed rather closely the House Bill with one or two important exceptions. H. P. Willis, *op. cit.*, Appendix XII. In February, 1917, the Board pointed out that of 2,750 millions of gold in the country, the Federal Reserve System controlled but 736 millions, of which 283 millions were held by reserve agents, 453 millions were reserve money, and 375 millions were free gold. The gold held against notes by the agent was not counted as reserves and it was the Board's proposal to include it as well as to concentrate legal reserves in the vaults of reserve banks. *F.R.B.*, 1917, pp. 98-99. Dr. Miller of the Board pointed out the dangers of inflation that were involved. *Annalist*, 1917 (10), p. 104.

⁴ H. P. Willis, *op. cit.*, pp. 1175-1176.

⁵ Thus cf. *B.M.*, 1916 (93), pp. 409-413; *ibid.*, 1919 (99), pp. 285-288; H. P. Willis, "Reserve System Inflation Power Needs Check," *Annalist*, 1925 (25), pp. 675-676. On the other hand, cf. L. Alexander, "The Power of Bank Credit to Influence Prices," *American Bankers' Association Journal*, May, 1926, pp. 745-746, 796-798; *Annalist*, 1916 (7), p. 763; *ibid.*, 1916 (8), p. 421, 675.

demands of war finance rather than by the available supplies of gold;¹ on the other hand, the exhaustion of reserves was an opportunity or an excuse for introducing restrictive measures in 1920. It is possible that post-war inflation might have been checked sooner had not the 1917 amendments made possible economies in the use of gold.

The result of the efforts of the Board, and the new legislation was an increased concentration of gold in the coffers of the reserve banks. Thus, as compared to 1,989 millions of gold and 357 millions of Federal reserve notes outside the Treasury and reserve banks on April 1, 1917, there were 861 millions of the former and 2,607 of the latter on December 1, 1918, and 728 and 2,504 millions on August 1, 1919.²

2. COOPERATION OF THE TREASURY

The Act of June 21, 1917, authorized and directed the Secretary of the Treasury to receive deposits of gold coin or gold certificates with the Treasurer or any Assistant Treasurer when tendered by any Federal reserve bank or Federal Reserve Agent making the deposit;³ it was also provided that the deposits were to be payable in gold coin or gold certificate to any Federal reserve bank or agent at the place of business of the Treasury nearest to the reserve bank.⁴ In October, 1920, the Minneapolis Bank announced that it would not issue notes to the Treasury in exchange for gold because it was deemed expedient to keep its notes outstanding at a minimum level; its position was that the notes were issued by the Minneapolis Bank and the System obtained the gold. On this occasion Governor Harding revealed the extent of the cooperation of the Treasury in concentrating the country's gold. Treasury officers were instructed

¹ S. E. Harris, *Monetary Problems of the British Empire*, p. 315.

² *F.R.B.*, 1919, p. 701. Miller presents the following figures:

| | Gold in the United States (Millions of dollars) | Reserves of reserve banks |
|-------------------------|---|------------------------------|
| November 27, 1914 | 1,835 | 228 |
| March, 1917 | 3,089 | 938 |
| May, 1919 | 3,092 | 2,188 |

A. C. Miller, "Federal Reserve Policy," *American Economic Review*, 1921, p. 181.

³ *Mim.L.S.*, 1920 (13), X-2037, p. 964; U. S. House Report No. 73, *Amending the Federal Reserve Act* (1917). The provision was introduced in conference.

⁴ Treasury Department, *Circular*, No. 86 (June 26, 1917).

not to pay out gold and accepted notes from the Federal reserve banks in exchange for gold. From November, 1917, to October, 1920, the Federal reserve banks supplied the Treasury at Washington with 573 millions of notes, and the Treasury deposited with the Federal Reserve Board 1,169 millions to the credit of the Federal reserve banks in the Gold Settlement Fund. The Board had not collected figures for the notes dispatched to the Subtreasuries by the reserve banks.¹ In one month the Treasury contributed one half of the gold received by reserve banks.² The Treasury and Reserve Board also devised a scheme for the redemption of unfit reserve notes, so that the issue of gold for unfit currency was averted.³

In a letter to the Board, Secretary of the Treasury Houston commented on the Treasury's policy of conserving the gold supplies: Gold should be conserved and concentrated and should not be put into circulation again, he wrote; but it was nevertheless the Treasury's policy not to refuse gold to those who requested it in payment for the interest on Liberty bonds, which was payable in gold coin.⁴ It is significant that the Treasury announced in June, 1920, that the coinage of two-and-a-half-dollar gold coins would not be resumed and they would not be paid out freely; the loss from abrasion was large and these coins tended to disappear.⁵ The Treasury also issued small denominations of greenbacks so that the reserve banks would have a free field for larger denominations.⁶

3. CONTROL OF GOLD MOVEMENTS

In October, 1917, the President, appealing to the state banks to join the Federal Reserve System, put much emphasis on the need of concentrating gold supplies.⁷ By executive order of the President signed on October 12, 1917, the Secretary of the Treasury was empowered to investigate, regulate, or prohibit any transaction in the foreign exchanges, the export or earmarking of gold and silver, or

¹ *Proceedings*, October, 1920, II, 337-340.

² *Mim.L.S.*, 1919 (10), X-1393, February 27, 1919.

³ *Ibid.*, 1917, X-426, October 19, 1917.

⁴ *Ibid.*, 1920 (12), X-1904a, p. 371; *cf. F.R.B.*, 1920, p. 454. The Treasury earlier agreed to discontinue the payment of five- and ten-dollar gold pieces for coupons payable in gold. *Mim.L.S.*, 1920 (12), X-1807, p. 116.

⁵ *Ibid.*, X-1951, p. 507.

⁶ *F.R.B.*, 1917, pp. 833-834; B. H. Beckhart, *op. cit.*, p. 266.

⁷ *F.R.B.*, 1917, p. 828.

the transfers of credits to foreigners. The Treasury delegated this authority to the Board with some reservations.¹ In September, 1917, the Federal Advisory Council had recommended a close scrutiny of the demands for the export of gold, approved of exports for commercial purposes compatible with the public interest; and although the Council proposed that sterling be supported, the reservation was made that the Allies should cooperate and the gold supply of the United States should not be reduced.² Later the Council held that only a material depreciation of the exchanges justified exports of gold, and the Board suggested that disturbances in trade relations with neutrals might be averted if acceptable exchange were provided on a basis which would assure the retention of the gold in the United States as a basis for issues of notes in creditor countries.³

The Board cooperated with the War Trade Board in passing on applications for licenses to export to neutral countries in northern Europe.⁴ Travellers were allowed to carry out designated amounts of gold and other forms of money; the reserve banks retained some discretion in acting on such applications.⁵ The Board allowed exports of gold up to 25 per cent of the value of silver exported from Mexico; silver exporters demanded the right to import gold up to 50 per cent.⁶ From September, 1917, to May, 1918, licenses to export 59 millions of gold were granted.⁷ In July the Board announced that the basis of the decision in considering applications to export gold had been the assurance that the gold was to be exported in payment for merchandise; in the future the basis was to be the desirability of the merchandise from a national viewpoint.⁸ In general

¹ Treasury Department, *Circular*, No. 99, November 23, 1917. According to Willis, the Federal Reserve Board had objected to the introduction of an embargo on gold shipments and held that the Treasury could regulate shipments by the control of marine insurance. H. P. Willis, *op. cit.*, pp. 1249-1250.

² *F.R.A.*, 1918, pp. 845-847.

³ *Ibid.*, p. 850; *F.R.B.*, 1917, p. 833.

⁴ *Mim.L.S.*, 1918, x-651, January 15, 1918. (Letter of Board to War Trade Board.)

⁵ Reserve banks might allow travellers to take out Federal reserve, National bank, Federal reserve bank, and United States notes in excess of \$1,000 and not more than \$2,000; gold not in excess of \$200; silver not in excess of \$500. Consent of the Board was necessary for amounts in excess of the above. *Ibid.*, x-939, May 17, 1918.

⁶ *Ibid.*, x-934, May 18, 1918. The Board informed reserve banks that American oil producers engaged in importing oil to the United States might export gold by license to pay wages and export duties. *Ibid.*, x-1057, July 18, 1918.

⁷ *F.R.B.*, 1918, p. 501.

⁸ *Ibid.*, pp. 594-595.

there was a disposition after the middle of 1918 to introduce more rigid regulations. The Board seemed concerned over the status of its reserves. In October the Treasury was empowered to take measures to stabilize and rectify the exchanges, and it assumed control now over the *hoarding* and *melting* of gold.¹

In May, 1919, the War Trade Board removed all manufactures of gold (gold content not in excess of 65 per cent) from the conservation list, and in June, control of the export of gold was given up although applications to the Board were still necessary.² From September 1, 1917, to May 31, 1919, imports and exports of gold were approximately equal at a figure somewhat above 100 millions. The Board also announced that approximately 300 millions of currency had been deposited with banks since the Armistice, of which a very large part was gold.³ In 1919, 292 millions (net) of gold were exported, of which 155 millions had been taken from reserve banks. For the year 1920, the reserve banks gained 128 and the net imports were 95 millions.⁴

Reserve banks were embarrassed by losses of gold in 1919-20; and that they were not wholly satisfied with the loss of gold, even though a restrictive policy might therefore be more easily justified, is apparent from comments on the embargoes in effect in Europe.⁵ Many make-shift arrangements were introduced in order to strengthen the reserve position of the reserve banks. Deposits abroad were included in legal reserves, and large deposits of silver were made by

¹ *Ibid.*, p. 961. In June, McAdoo announced that arrangements had been made with neutrals to support the exchanges. *Ibid.*, p. 626. Several neutral countries agreed to retain deposits in the United States and all Federal reserve banks participated in these agreements. *Mim.L.S.*, 1918, x-1057, July 11, 1918; *ibid.*, 1923 (18), x-3749c, p. 438. Cf. S. E. Harris, *op. cit.*, pp. 314-319.

² *Mim.L.S.*, 1919 (10), x-1543, p. 310; *ibid.*, x-1570, p. 369; *C.F.Chr.*, 1919 (108), p. 2385.

³ *F.R.B.*, 1919, p. 616. In 1922, Harding estimated that 600 millions of gold had been received from domestic sources of late and hence he concluded that hoards had been large in 1919 and 1920. Hearings: *Sale of Farm Loan Bonds* (67: 2), 1922, pp. 3-4.

⁴ *Mim.L.S.*, 1921 (14), x-3099, p. 464. In 1920 the gold stock was reduced by 3 millions nevertheless; the explanation of this anomaly is that there was a large increase in the unassayed gold held in the New York Mint on December 31, 1920. For the fiscal year 1919-20 the net exports were 316 millions and the Federal reserve banks' stock was reduced by 178 millions. (There was a gain of 111 millions held with foreign agencies.) *F.R.B.*, 1920, p. 668. Governor Strong seems to have overestimated the extent of the losses and the volume of reserve credit necessary to cover them. Hearings: *Stabilization* (69: 2), 1926, I, 439-440.

⁵ *F.R.B.*, 1920, p. 214; cf. S. E. Harris, *op. cit.*, pp. 318-319 for a discussion of the measures taken by the authorities in 1919 to provide against large losses of gold.

the Treasury; the New York Bank improved its position by reducing the items in process of collection from 288 to 219 millions.¹

4. ATTITUDE OF THE BOARD TOWARD FREE GOLD MOVEMENTS

It is apparent that the reserve authorities were seriously concerned over the position of their reserves in the middle of 1918.² The introduction of daily settlements through the Gold Settlement Fund was a means of economizing gold.³ In August, 1918, the Board dispatched to reserve banks a letter, apparently received from high authority, in which the opinion was presented that it would be advantageous to allow free gold movements.⁴ In December, 1918, the Board expressed confidence in the return of prices and credit to a normal level; but a redistribution of gold was not, therefore, held necessary.

It is, indeed, quite possible that peace adjustments may be such as not to disturb in large degree the continued holding of considerable quantities of gold by the countries which now possess them, notwithstanding that they still continue to be used as a basis for banking in other nations.⁵

Early in 1919, the Board still seemed to favor free gold movements, although a word of caution on the danger of one-sided movements was added; but it was also maintained that creditor countries did not require large supplies of gold if they held adequate portfolios of foreign bills and were protected by a sound banking system.⁶

¹ *C.F.Chr.*, 1919 (109), p. 1632; *ibid.*, 1920 (110), p. 898; *F.R.A.*, 1920, p. 46. Imported gold was more profitably brought to the New York Reserve Bank than to the assay office, for immediate expansion was thus made possible. *C.F.Chr.*, 1920 (111), p. 2095. Also, the New York Bank began to hold bills for foreign correspondents. *F.R.B.*, 1920, p. 455.

² *Mim.L.S.*, 1918, X-1113. (Confidential letter of August 7, 1918 in which the Board expressed concern over the status of reserves and expressed regrets particularly over the loss of 90 millions of silver.)

³ *C.F.Chr.*, 1918 (107), p. 343; *F.R.B.*, 1918, p. 591. It is also perhaps significant that in 1919 the Board approved of the proposal that credit be given the remitting reserve bank on day of receipt for clearing house items whether or not received in time for the day's clearing. *Mim.L.S.*, 1919 (11), X-1725, p. 880.

⁴ *Ibid.*, 1918, X-1162, August 29, 1918. The writer pointed out that few countries could profitably withdraw gold; and he added that the percentage of reserves was a relatively unimportant consideration.

⁵ *F.R.B.*, 1918, p. 1165.

⁶ *Ibid.*, 1919, p. 7; *Mim.L.S.*, 1919 (10), X-1353, pp. 27-30. The Board was less optimistic in its letter to the reserve banks. The restoration of free movements depended to some extent on foreign demands for gold, and the control of gold movements

At the March, 1919, Conference with the Treasury and reserve officials, the Board seemed less confident of its position.¹ Kent, the expert on foreign exchanges, envisaged no important losses of gold on the introduction of free movements.² Governor Strong was in favor of more liberal exports by license, contemplated a diminution in the demand for gold on the part of neutrals with appreciated exchanges, and predicted that the Allies would curtail their borrowing once they realized that they were not to use dollars advanced by the American Treasury to pay for purchases in other countries.³ Governor Harding estimated that bankers and exporters had increased their debts to foreigners by 100 millions since June, 1918.⁴ To Harding's demand that the Treasury conform its policy to the requirements of the reserve system and to his threat to use the discount rate to protect gold reserves, Assistant Secretary of the Treasury Leffingwell's reply was "What in the world are you afraid of?"⁵ Harding also expressed a fear lest foreigners withdraw balances in the United States to purchase cheap foreign goods, once the embargo was removed.⁶ The Governor's recommendation for the unlimited redemption of notes was not entirely acceptable to the Board, which expressed a fear of the possibility of large hoards.⁷ Later the Board approved a recommendation of the governors that member banks should continue the practice of refraining from paying out gold certificates.⁸ When the gold embargo was finally lifted in June, 1919, however, the Board pointed to the danger of continued gold imports and was optimistic concerning the balance of payments.⁹

5. CONCLUSION

Several years of persistent efforts and the requirements of war finance finally impressed Congress with the need of concentrating the gold supplies of the country. In their efforts to attain their objective, reserve authorities in particular emphasized the desirability

and exchanges through discount policy was dependent on the enforcement of a proper fiscal policy.

¹ The Board put specific questions on the concentration of gold and redemption of notes to the Conference. *Ibid.*, x-1390a, March 20, 1919.

² He anticipated demands from Japan and Java, and he estimated that in the first 90 days the total losses would be less than 200 millions. *Proceedings*, March, 1919, pp. 144-145.

³ *Ibid.*, pp. 130-131.

⁴ *Ibid.*, p. 103; cf. pp. 104-106.

⁵ *Ibid.*, pp. 96-101, 124-125.

⁶ *Ibid.*, p. 13.

⁷ *Mim.L.S.*, 1919 (10), x-1463, p. 205; *ibid.*, x-1459, p. 196.

⁸ *Ibid.*, 1920 (12), x-1807, p. 119.

⁹ *C.F.Chr.*, 1919 (108), p. 2386.

of averting inflation and deflation. That the receipt of gold by member banks would increase their reserves and hence stimulate expansion was not considered. The only inkling of the manner in which reserve banks were to prevent inflation was revealed in a statement that earning assets might be reduced somewhat, and in a rather unimportant reduction of investments in the latter part of 1916 and 1917. Whatever their intentions, the concentration of gold supplies was responsible for a considerable measure of inflation; the net effect of the modification of reserve requirements was an increased capacity to expand; and before inflation was checked in 1920, reserve banks had exhausted their surplus reserves. In the war period, on the other hand, the expansion would have been carried through even if available supplies of gold had been much smaller.

By the middle of 1918, both the Treasury and reserve authorities were concerned over the status of reserves of the reserve banks, although the Treasury and banks had made every effort to conserve gold by granting licenses for export with discrimination, by depositing gold received in the course of business with the reserve banks or the Gold Settlement Fund, and by paying out minimum supplies of gold. There is ample evidence in the movements of gold in later years that hoards were large in the years 1918-20. Losses of silver were also felt by the reserve banks. More rigid regulations were introduced in the second half of 1918 for protecting the gold supply, and the Treasury embarked on its policy of borrowing from creditor countries.

When the question of raising the embargo was broached early in 1919, the Board seemed to be favorably disposed, and took this occasion to warn the Treasury that they must conform their policies to the requirements of the reserve banks, for the raising of the embargo would require the application of the discount rates to control the exchanges and gold movements. But the Treasury was recalcitrant, and, moreover, the Board's expert held the opinion that demands on American gold would not be heavy. The embargo was lifted; it is doubtful, however, whether Dr. Miller was justified in his assertion that the Board was pleased with the prospect of exercising control which its termination required. Authorities did not seem disposed to use the support of depleted reserves in justifying a policy of restriction. Various arrangements were made for strengthening the reserves of the reserve banks, and dissatisfaction was expressed at the continuance of embargoes abroad.

CHAPTER XX

GOLD POLICY, 1921-32

I. THE CLASH WITH THE TREASURY OVER GOLD PAYMENTS

IN REPLYING to a question of the Board, the Federal Advisory Council in May, 1921, ventured the opinion that large gold reserves did not constitute a danger provided the Federal Reserve Board and the various reserve banks pursued a conservative policy, and hence advised against putting gold certificates into circulation.¹ In April, the Board raised several related questions for the joint conference of the Board and governors of the reserve banks: What action, if any, should be taken regarding South African gold? Should gold that otherwise might be imported be held abroad and earmarked even though the Board has ruled that gold held abroad may not be counted as reserves? Should reserve banks pay out gold certificates in order to prevent an undue increase in reserves? Should reserves of reserve banks consist, as far as possible, of gold?² The last two questions were raised once more at the Governors' Conference of October, 1921, and in addition the question of retiring bonds securing National Bank notes was brought up: the substitution of reserve notes for National Bank notes was suggested as another method of reducing the surplus of gold reserves.³ The Under-Secretary of the Treasury also suggested for consideration of the latter conference a plan for the establishment of a centralized control of the distribution of currency under the supervision of representatives of the Treasury and the Federal Reserve Board, and submitted once more the questions of putting gold into circulation and retiring National Bank notes.⁴

Apparently, the Treasury was prepared to push its plan for putting gold into circulation. In October, 1921, Under-Secretary Gilbert criticized the reserve banks for holding such large supplies of lawful money: because the reserve banks held reserves equal to 69 per cent of their liabilities, there was no excuse, he said, for re-

¹ *F.R.A.*, 1921, p. 687.

² *Mim.L.S.*, 1921 (14), X-3086a, pp. 374-375.

³ *Ibid.*, 1921 (15), X-3222a, p. 1098.

⁴ *Ibid.*, X-3223a, pp. 1100-1101.

fusing to maintain the System on a strict gold basis.¹ In a letter of the Secretary of the Treasury to the Treasurer dated March 6, 1922, the Treasury announced its new policy, the object of which was to reestablish the unrestricted circulation of gold within the United States and restore payments by the government on the basis which existed before the War. The order of preference of payment for various denominations was given: in five and ten dollar denominations, payment was to be in United States notes as far as possible and silver certificates when available; if they were not available, Federal reserve notes were to be purchased, and it was added that payment in gold certificates on demand was to be made if no other currency were available; payments in denominations of twenty dollars and up were to be made as far as possible in gold certificates or, when available, in United States notes or silver certificates. Federal reserve banks were instructed to follow these directions both in making current payments for the government and in exchanging or redeeming United States currency. In the future, Federal reserve notes were not to be purchased by the Treasury in denominations of twenty dollars or more.²

The Treasury's instructions concerning payments on its behalf gave the Board another opportunity to raise the question of gold payments with the reserve banks. The Board pointed out that the objections raised in October, 1921, might no longer be valid: payment of gold could no longer be criticized as a means of keeping the Bank rate up, for rates were now at a low level and the receipt of 800 millions of gold since March, 1921, was a constant temptation to inflation.³

Apparently the reserve banks were not sympathetic to the proposals of the Treasury, for Under-Secretary Gilbert requested of United States Treasurers, in order to assure the effective enforcement of the Treasury's regulations, that shipments of paper currency be made direct to banks presenting currency for redemption to the Treasurer, instead of through the reserve banks.⁴ A day later, Mellon announced that the Treasury had resumed payments in gold

¹ *Mim.L.S.*, 1921, (15), X-3219a, p. 1094. Perhaps the Treasury was concerned because the reserve banks were withdrawing reserve bank notes more rapidly than the Treasury was able to coin new silver to replace them. *Ibid.*, X-3208a, p. 1029.

² *Ibid.*, 1922 (16), X-3353a, pp. 338-339.

³ *Ibid.*, X-3354, pp. 340-341. The Board added that Europe would not be in a position to draw gold in the near future and, also, the question of the effect on reserve banks holding relatively low reserves ought to be considered.

⁴ *Ibid.*, X-3363a, p. 358.

certificates in the ordinary course of business, even if gold was not specifically requested, and that the new policy removed the last artificial restriction upon gold payments in the United States.¹

When several reserve banks apparently objected to the policy of the Treasury, the Secretary replied in effect, specifically to those of Chicago and Richmond: Under the law, the issue and distribution of United States paper currency is under the supervision of the Secretary of the Treasury, who is charged with the duty of maintaining parity of all forms of money with gold. It is a well recognized attribute of an unrestricted gold standard that gold is not only held in reserves and available for issue in settlement of foreign balances but also circulates freely and without restriction in domestic transactions. The dissipation of the country's gold supply is not involved; hoarding will be encouraged if the reserve banks, in maintaining their present attitude toward gold, should indicate a nervousness concerning their holdings.²

Evidently the Treasury modified this position later. In a letter of April 25, it was admitted that the final responsibility with respect to general methods of making payments must rest with the reserve banks and the Board, although when the reserve banks made payments in the capacity of a redemption agency they might be required to pay in gold.³ Moreover, at a meeting of representatives of the Treasury, the Board, and reserve banks in March, 1922, it was agreed that in making payments for the Treasury in denominations of five dollars and over, preference should be given to Federal reserve notes rather than to gold certificates. The reserve banks were not to discriminate against National Bank notes, and the order of payments announced for all denominations virtually assured a large reduction of the lawful money held by reserve banks and included in reserves.⁴ Gold was paid out, however, and the Federal Advisory Council disapproved, early in 1922, of this policy, and apparently the Board was not reconciled to such payment, for in referring to an increase of approximately 100 millions in circulation in 1922, responsibility was put on the Treasury.⁵

¹ *Ibid.*, x-3364, p. 360.

² *Ibid.*, x-3368a, x-3368b, pp. 367-369. The Secretary issued a veiled threat: should all the reserve banks adopt the system advocated by the Richmond Reserve Bank, that policy would nullify the gold policy adopted by the Treasury unless the Treasury once more undertook to resume direct redemptions.

³ *Ibid.*, x-3392, p. 529.

⁴ *Ibid.*, x-3393, p. 538.

⁵ *F.R.A.*, 1922, pp. 12, 407-408.

By 1923 reserve authorities had in turn, apparently, shifted their ground. Late in 1922 the Board had concurred in a proposal of the Treasury to pay out gold coins freely for holiday purposes.¹ But in the 1923 *Report*, the Board commented as follows:

The increased demand for currency during 1923 was met by the payment of gold certificates into circulation and not by the issue of Federal reserve notes. This reflects the recent practice of certain reserve banks, particularly New York, of supplying the currency requirements of their members by paying out gold.²

The Board seemed not to be won over completely to the policy, now apparently approved by the New York Bank, as may be inferred from the above statement.³

From the beginning of 1923 until the end of 1925, the reserve authorities and the Treasury continued to pump large amounts of gold into circulation.⁴ In 1926 the reserve authorities altered their policy and refrained from paying out gold certificates in greater amounts than were required to hold constant the volume in circulation.⁵ The Federal Advisory Council had proposed such a policy early in 1925.⁶ Whether the Treasury and the reserve authorities clashed on gold policy at this time is not clear; at any rate, in the years 1925 and 1926, the Treasury supported a program for the retirement of National Bank notes which resulted in a reduction by more than 100 millions of notes outstanding;⁷ the substitution of either reserve notes or gold certificates for National Bank notes reduced the surplus gold of the country. Finally, in 1928 reserve officials agreed

¹ *Mim.L.S.*, 1922 (17), x-3573, p. 1232.

² *F.R.A.*, 1923, p. 23. Hamlin, early in 1924, said that the Board would not leave it to the discretion of reserve banks to determine the volume of gold to be put into circulation. *Mim.L.S.*, 1924 (20), p. 94, February 12, 1924. Dr. Miller said in 1926 that the gold policy since 1922 had been determined by the Board and the large reserve banks. Hearings: *Stabilization* (69: 2), 1926, II, 906.

³ Dr. Miller expressed opposition to the policy late in 1921. *Mim.L.S.*, 1922 (16), x-3400, pp. 578-579.

⁴ On July 1, 1922, 173 millions of gold certificates were in circulation; on June 1, 1926, the total was 1,074 millions; the increase was 200 millions in excess of the imports of gold. *F.R.B.*, 1926, p. 473. Cf. *Review of Economic Statistics*, 1923, p. 268; *ibid.*, 1926, pp. 109-110.

⁵ Thus from January 1, 1925 to January 1, 1926, the increase of gold in circulation was 110 millions, but from November, 1925 to November, 1926, the increase was but 11 millions. *F.R.B.*, 1926, pp. 172, 825.

⁶ *F.R.A.*, 1925, p. 285.

⁷ *C.F.Chr.*, 1924 (119), pp. 2598-2599; *ibid.*, 1927 (124), p. 726.

that the current volume of gold certificates in circulation—approximately a billion dollars—should be maintained.¹

In public statements it has generally been held that the object of putting gold into circulation was to create a secondary reserve, to retain confidence on the occasion of losses, and to reduce sentiment in favor of inflation. On the other hand, Governor Strong has made the point that it was desirable to maintain gold in circulation at the saturation point so that any losses of gold would be at the expense of the reserves of the reserve bank.² This objective is not consistent with the others, and, moreover, is a somewhat extreme and perhaps unacceptable statement of the theory that reserve banks should bear the brunt of all movements of currency and gold. The acceptance of this position makes the enforcement of an adequate policy difficult.

Reserve banks put gold into circulation when large amounts were imported, and even continued to do so in 1924-25 when gold was exported; and the large supplies of gold exported in 1927-28 were not sufficiently restraining, in part because the reserve banks replenished their reserves to the extent of a few hundred millions by taking gold out of circulation. They had an instrument of control which they might have used for the purpose of increasing stringency. They might even increase the gold in circulation and thus reduce surplus reserves and justify contraction, or they might reduce stringency by refraining from paying out gold so that the supplies in circulation would decline. There is an element of danger in putting gold into circulation. It requires time to replenish gold reserves by obtaining gold certificates from circulation, and an appreciable proportion may remain in hoards. The danger is of course considerably less than when gold coins are in circulation. Thus the reduction of *gold certificates* in circulation from May, 1931 to May, 1932 was from 1,020 to 735 millions, or 285 millions; the *total* gold in circulation (certificates and coins) increased, however.³ The accumulation of gold certificates was at a slow rate in view of the magnitude

¹ *Mim.L.S.*, 1928 (29), X-6191a, p. 369.

I refer the reader to Chart X and the discussion on pp. 764-766 for a statistical presentation of this subject.

² B. Strong, *op. cit.*, pp. 301-302. Cf. *Mim.L.S.*, 1924 (21), X-4212, pp. 813-815. It was maintained by an official of the System in 1924 that in the existing credit and money situation, it makes little difference whether reserve banks issue Federal reserve notes or gold in response to demand.

³ *F.R.B.*, 1932, p. 354.

of the losses of gold. At the end of January, 1933, no less than 1,100 millions of gold were in circulation; authorities were to regret their gold policy later.

2. A GOLD POLICY, 1922-24?

Gold movements to the United States were very large in the years 1921-24;¹ at first, the movements were not embarrassing, for member banks repaid their debts to the reserve bank with incoming gold. At least the reserve banks were embarrassed only by the magnitude of their surplus reserves, and did not have to face the problem of expansion by member banks in 1921, the year of largest imports of gold. By the beginning of 1922, reserve authorities announced that in formulating a gold policy they would keep in mind the goal of the reestablishment of the gold standard for the world;² this was an announcement that they would hold large surplus reserves rather than expand and inflate, thus squandering the gold held in trust for the world. The gold standard was held to be a check on expansion, and authorities asserted that its restoration would restore the discount rate as a stabilizing factor. The introduction of a more liberal acceptance policy in 1922 was held to be justified by the need of redistributing the world's gold supplies.³ These expressions of policy by the reserve authorities evince their opposition to the Treasury's policy of putting gold into circulation.

By the middle of 1922, member banks began to use the incoming gold as a basis of expansion and later (1923) especially to obtain increased currency. The Board's policy of 1922 had called for the conservation of the gold supplies; but there was also an element of inflation involved, as is evident from a consideration of the policies of the reserve banks. Perhaps the expansion of 1922 diverted the attention of the reserve banks from the status of their own reserves, with a consequent shift of emphasis to the lending policies of member banks. It will be recalled that reserve banks purchased investments rather freely in the latter part of 1921 and the first half of

¹ See *F.R.B.*, 1924, pp. 243-249 for a discussion of the volume of imports and the uses to which they have been put. From March, 1921 to March, 1924, the monetary gold of the United States increased by 1.4 billions. Cf. *F.R.B.*, 1925, p. 448. Reserves of the reserve banks increased by 800 millions from 1920 to 1925 and excess reserves increased by 1,250 millions in spite of the injection of gold into circulation. Cf. Chart X and pp. 764-766.

² *F.R.B.*, 1922, pp. 3-4; *C.F.Chr.*, 1922 (114), p. 791.

³ *Ibid.*, pp. 1359, 2072. Cf. *Mo. Rev. of N.Y.R.B.*, April, 1921, p. 12.

1922, thus accentuating the inflationary effects of gold movements. The reserve banks began, in the latter part of 1922 and the early part of 1923, to sell securities with a view to repairing the damage resulting from the policy carried through in the earlier months; it could not be maintained that the objective of sales was to offset gold movements, for purchases had been made previously in a period in which gold was being imported. They now were prepared to carry out the Treasury's policy of putting gold into circulation in order to divert attention from the large reserves of the reserve banks, and they became somewhat interested in the balances of member banks, which were the basis of the unusual credit expansion.¹

That the reserve authorities were not satisfied with their control of the situation is evident from many official statements. In the spring of 1923, the Board announced:

It is not so important to know whether bank credit would have expanded to the same extent had there been no gold imports, as it is to realize clearly that, if member banks had not received a steady stream of gold from abroad, they could not have extended the additional credit granted by them during 1922 without applying for a larger amount of accommodation at the Federal reserve banks.²

In January, 1923, the Board had written as follows:

The persistent import of gold from abroad, in the absence of normal correctives, and in conjunction with influences at work in the domestic credit situation, makes the problem of credit control in the country more than usually difficult.³

Continued imports, in 1924, of gold which was not exchanged for currency as in 1923, but was the basis of expansion on the part of member banks, exerted a stimulus for the introduction of a policy of easy money, the object of which was to effect a better distribution

¹ Secretary Hoover's Committee on Business Cycles suggested that surplus gold be earmarked for future export. *C.F.Chr.*, 1923 (116), pp. 2344-2345. Chandler came to a similar conclusion after dismissing the possibility of putting surplus gold into circulation and withdrawing greenbacks and several other alternatives. *Commerce Monthly*, June, 1923 (v), pp. 3-13.

² *F.R.B.*, 1923, p. 409.

³ *Ibid.*, p. 5. Goldenweiser in 1923 pointed out that additional imports of 1.2 billions of gold would result in the substitution of gold for all the earning assets of reserve banks; but inflation would be introduced at an earlier stage, for all reserve and member banks did not hold equal reserves, relatively speaking. E. A. Goldenweiser, "Effects of Further Gold Imports on Our Banking Situation," *American Economic Review*, 1923, pp. 88-91.

of the world's supplies. Thus it was held in high official circles that the continued imports of gold were a source of danger to the country, and accordingly reserve authorities cooperated with Germany and England in their attempts to reestablish the gold standard.¹ The Board expressed little concern over the loss of gold in 1924-25 and reassured the country in pointing to the 800 millions of gold certificates, put into circulation in the last three years, which constituted a secondary reserve.²

Even in 1928-29, when the policies of 1924 and 1927, introduced to assure the reestablishment of the gold standard elsewhere, were under severe criticism, the Board continued to defend its policy.

The credit policies of the Federal Reserve System, which during the period from 1924 to 1927, when the gold standard was being reestablished, were a factor favoring the redistribution of gold, have, therefore, contributed to the maintenance of the gold standard and indirectly to the improvement of world trade. The return to free gold movements has also reduced the fluctuations of the exchanges to a range within the gold points, and has brought about a closer adjustment of money rates at the principal money markets and a closer inter-relationship in the movements of commodity prices in different countries. Reestablishment of these relationships has had important consequences, from the point of view of the Federal Reserve System, of restoring at least in part the influences that under the gold standard have tended to correct excessive credit expansion in any country that takes an important part in international finance and trade.³

¹ B. Strong, *op. cit.*, p. 259; Hearings: *Stabilization* (69: 2), 1926, I, 497-499; *ibid.*, II, 694. The Federal Reserve Board expressed its willingness to cooperate early in 1924. *F.R.A.*, 1923, p. 20. The Federal Advisory Council was also favorably disposed. "Unless America finds ways and means to permit her excessive banking strength to benefit other countries, particularly those striving to bring their house in order, the dollar cannot maintain its position as a world standard of exchange. . . . In the opinion of the Council the sooner Germany can be placed on a gold or a gold exchange basis, the sooner can England, and other countries also, return to an unrestricted gold standard. . . ." *Ibid.*, 1924, pp. 278-279, 280-281.

² *F.R.B.*, 1925, pp. 233-234.

³ *F.R.A.*, 1928, p. 16. In referring to the gold imports preceding the introduction of an easy monetary policy in 1927, the Board said: "In these circumstances, it was difficult for the reserve banks to maintain a continuous operating contact with the market -- gold imports to the United States which were caused in large part by the suspension of the gold standard in Europe, had the effect of making it more difficult for the reserve banks to make their credit policies effective." *Ibid.*, 1927, p. 15.

3. PRIMARY AND SECONDARY EXPANSION

Early in 1925, the following observation was made by the Federal Advisory Council:

Concentration of reserves and an elastic note issue planned on broad lines enabled us during these last years to absorb a flood of gold in such a manner as to deprive it of the inflationary effects which some of our European friends had expected it inevitably to produce.¹

This quotation is typical of many that reveal the extent to which this question has been misunderstood.² In the *Journal of Commerce*, Willis has rightly criticized reserve officials for taking a somewhat similar position.³ On the other hand, a few authorities have pointed out correctly that member banks receive the gold in the first instance, and therefore their reserves may be increased and *primary* expansion introduced.⁴ It is absurd of the Council to contend, in the light of the expansion of several billions of member-bank credit (loans and investments), that as a result of the concentration of reserves, these large imports of gold have not had the inflationary effects anticipated. McKenna has argued along similar lines;⁵ but these authorities err, not only in concentrating their attention on commodity prices rather than upon a more inclusive index that would take account of security and real estate values, but also in neglecting to consider the unprecedented expansion of member-bank credit.

¹ *Ibid.*, 1925, p. 289. In commenting on the Strong Bill in 1928, Governor Strong apparently had in mind the possibility of controlling fully the effects of gold movements when he said that a scientific application of the gold standard would accomplish everything the bill would. (Certainly there had been no such application, for primary expansion had not been controlled.) Hearings: *Stabilization* (70: 1), 1928, pp. 13, 20-21.

² Even Keynes makes an egregious error. "The successful management of the dollar by the Federal Reserve Board from 1923 to 1928 was a triumph — mitigated, however, by the events of 1929-30 — for the view that currency management is feasible in conditions which are *virtually independent of the movements of gold.*" (Italics mine.) J. M. Keynes, *op. cit.*, II, 258.

³ Quoted in *C.F.Chr.*, 1927 (125), p. 3288.

⁴ G. E. Roberts, "Speculation, Gold and Bank Policy," *Review of Economic Statistics*, 1929, pp. 197-202; B. M. Anderson, Jr., "Cheap Money, Gold and Federal Reserve Bank Policy," *Chase Economic Bulletin*, August, 1924. In 1922, the New York Bank pointed out that the control by reserve banks of the effects of gold movements depended on the degree of indebtedness of member banks to reserve banks. *Mo. Rev. of N.Y.R.B.*, October, 1922.

⁵ R. McKenna, "The Dollar Standard," *Acc. Bull.*, February, 1928, pp. 2-9.

It has been adequately recognized by reserve authorities that member banks have been able to expand many fold — even as much as twenty — on the basis of incoming gold.¹ Unless incoming gold is to be the basis of such manifold expansion, member banks must be deprived of an equivalent amount of cash. Early in the post-war period, authorities made a pretense at introducing a policy of offsetting imports of gold by sales of securities, thus maintaining the reserves of members at a relatively stable level. Moreover, reserve banks were fortunate, for members consumed a very large amount of incoming gold in liquidating large debts at the reserve banks in 1921-22, and, later, in withdrawing currency notes.² The apparent non-inflationary effects of these early imports of gold left the authorities unduly optimistic of their capacity to cope with large inward movements;³ their investments were not nearly large enough to enable them to offset the unprecedented imports of gold in the years 1922-24;⁴ moreover, their desire to increase earnings led them to purchase securities and thus accentuate the effects of gold imported. McKenna comments on the policy of offsetting gold move-

¹ Cf. W. M. Persons, "The Basis for Credit Expansion under the Federal Reserve System," *Review of Economic Statistics*, 1920, pp. 21-27; Hearings: *Stabilization* (69: 2), 1926, I, 422. In 1921, the New York Bank estimated that an expansion of 11½ times was possible on the basis of incoming gold. *Mo. Rev. of N.Y.R.B.*, September, 1921. But it is to be noted that the assumption was made that for 5 dollars of gold deposited, 3 dollars of notes would be withdrawn. Is this a justifiable assumption? The actual expansion has been at a more rapid rate than anticipated by Persons and Strong; transfers to time deposits and other economies explain the rate at which member banks expanded in relation to the increase of reserves. *Commerce Monthly*, November, 1927 (IX), pp. 3-10.

² The New York Bank observed in 1928 that incoming gold had been used since 1920 to repay the reserve banks and to serve as a basis of expansion of member-bank credit. Reserves of member banks had been increased by 600 millions. *Mo. Rev. of N.Y.R.B.*, July, 1928.

³ Cf. *C.F.Chr.*, 1921 (113), p. 1520, however. (Letter of Governor Harding to Senator Sheppard); B. Strong, *op. cit.*, p. 231. (Strong was not entirely unaware of the difficulties.)

⁴ Chandler made this point in 1926 and suggested that the only alternatives were amendments to the Reserve Act that would make possible a sterilization of gold or a redistribution of the gold supplies. H. A. E. Chandler, "International Aspects of Federal Reserve Policy," *American Economic Review, Supplement*, March, 1926, pp. 316-324. McFadden embodied in one of his bills a provision to reduce the amount of paper eligible for collateral against notes, thus planning to reduce the surplus gold; but this proposal does not solve the problem of primary expansion and in fact his bill provided for a reduction of reserves required by member banks. *Mim.L.S.*, 1925 (22), p. 339 (Letter of Legislative Committee of Board to McFadden); *C.F.Chr.*, 1925 (120), p. 2644. The Glass-Steagall Bill now (1932) operates in the opposite direction in releasing gold.

ments, but these offsetting movements have almost invariably been in response to outflows rather than inflows.¹ Those who were later to criticize the reserve banks for hoarding gold and depressing prices were lavish in their praise of the policy of 1921-25, which, they held, was responsible for stable prices.²

Whatever attention has been given to gold policies has largely been concentrated on the policies of the reserve banks, once they had received the gold³ — that is, the problem of secondary expansion. As early as 1921, reserve officials were aware of the necessity of conserving gold resources and maintaining surplus reserves; gold was not to be dissipated.⁴ The policy of accumulating surplus reserves by the reserve banks has been a subject of interminable discussion. European critics have been especially bitter concerning the gold policy of the reserve banks.⁵ It has been held by them in recent years that the reserve banks have hoarded gold, have been responsible for declining prices, and have thus both stimulated further imports and deprived the rest of the world of its rightful share. It has been held that the United States alone could afford to hoard large supplies or export large supplies without suffering any adverse effects. The unprecedented rate of primary expansion and the expansion in the security markets have been neglected.⁶ The hoarding policy of the Bank of France, in pre-war days or even in recent years, it is to be observed, has not been dissimilar. Several

¹ R. McKenna, *op. cit.*, pp. 5-7. In 1927, large purchases of securities were made to offset losses of gold. *C.F.Chr.*, 1927 (125), p. 3127. This attempt to reduce the disturbing effects of exports of gold has been severely criticized by Glass. *Ibid.*, 1928 (126), p. 3514.

² "Our Reserve Bank Policy as Europe Thinks It Sees It," *Annalist*, 1927 (30), pp. 374-375.

³ Hearings: *Stabilization* (69: 2), 1926, I, 470-472.

⁴ *Proceedings*, October, 1922, I, 192. Early in 1927, the Board justified the retention of large surplus reserves on the grounds that foreign balances might be withdrawn, and therefore, large gold reserves were necessary to assure the country against disturbances whenever these balances (and gold, therefore) might be withdrawn. *F.R.A.*, 1926, p. 16.

⁵ "The Federal Reserve System and the Decline of the World Commodity Price Level," *Commerce Monthly*, October, 1927 (IX), pp. 3-12; *ibid.*, November, 1927, (IX), pp. 3-10; B. Ohlin, "Gold Movements and Deflation, 1925-27," *Index* (Stockholm), No. 24. December, 1927. Sir H. Strakosch, in *Gold and the Price Level*; *L. E.*, July 5, 1920; Sir J. Stamp, *Papers on Gold and the Price Level*, p. 37. Committee on Finance and Industry, *Evidence*, I, 1594.

⁶ Keynes, however, points out that in view of the movement of prices in Europe and the reduction of the cost of manufacturing, a stable price level in the United States might have concealed some measure of commodity inflation. J. M. Keynes, *op. cit.*, II, 190-191.

other central banks have hoarded supplies of gold as large, relatively speaking, in the post-war years — Japan, for example. That the reserve banks did not offset these inward movements is overlooked, as is the fact that they frequently offset outward movements and thus prevented contraction and facilitated the withdrawal of gold from the United States.¹ In truth, the offsetting purchases of securities have been severely criticized in the Chamber of Commerce Report.²

American critics of reserve policy have also contended that the inflow of gold into the United States has been an important cause of the downward tendency of prices abroad. It has been stated that as gold flows to the United States prices decline.³ But it may be observed that from 1921 to 1924 movements of prices in the principal countries of Europe were not seriously affected by the accumulation of gold in the United States. In view of the fact that these countries were off the gold standard, it may be held that the so-called hoarding of gold in the United States tended to raise the value of the dollar relative to the currencies of Europe, and therefore to raise prices in Europe, for commodities purchased in the United States would cost more. In the years 1924-27 the United States lost gold, and hence any downward tendency must be explained on other grounds. In more recent years, the decline in prices has been so precipitate that regardless of our opinion concerning the long-time trend of the value of gold, the scarcity of gold must occupy a very small part in the explanation, and even the mal-distribution (aside from its psychological effects) ought not to be given a large place. Otherwise, why should this factor have become of outstanding importance in the span of a year or two?

¹ Burgess observes that the United States lost 120 millions of gold in 1925-27 and hence no sterilization policy could have been in force in those years; in 1921-24, a low rate would have been ineffective in keeping gold out, and, moreover, the employment of the gold in the liquidation of debts of member banks resulted in easier monetary conditions. W. R. Burgess, "The Money Market in 1927," *Review of Economic Statistics*, 1928, p. 19. Burgess is probably correct in minimizing the influence of a low rate in the years 1921-24 although an easier policy in 1921 might have stimulated expansion; but the loss of gold in 1925-27 does not prove that reserve banks might not have purchased assets more freely. Whether such policy would have been expedient is another question.

² *The Federal Reserve System*, Report of the Banking and Currency Committee, U. S. Chamber of Commerce, 1929, Auxiliary Statements, p. 30.

³ H. L. Reed, *Federal Reserve Policy*, 1921-30, pp. 73-74; J. H. Rogers, *America Weighs Her Gold*, p. 104.

Critics of reserve-bank policy have accused the reserve authorities of not playing the game of the gold standard; and undoubtedly there have been times when our monetary policies have not been sufficiently attuned to world conditions. One reason for this is the fact that reserve banks must proceed with caution because dangerous criticisms emanate from politicians that the reserve banks have been dominated by Europe. And, more important, there are limits to which American policy ought to be subordinated to world policy. Over a period of fifteen years Europe has been losing gold to the United States. Inflation, war, unsound finance, unhealthy economic conditions, changing world conditions have all accentuated the loss of gold.¹ If the United States can retain an element of stability by refusing to inflate when the rest of the world is inflating wildly or merely losing gold for other reasons, there may be some justification for an isolationist policy. Moreover, there are means of repatriating gold previously dumped on the United States other than the enforcement of inflation here. The withdrawal of foreign balances in 1931-33 would seem to justify in some measure the failure to introduce more aggressive inflationary policies in the United States.² Now that we are off the gold standard (March, 1933), we are at liberty to pursue a monetary policy determined almost exclusively by domestic needs.

In a later discussion something will be said of the heroic efforts made by the reserve banks in the years 1929-32 to stimulate the expansion of bank credit and (later) to stop the decline. It ought not to be maintained that the "United States and France have put into practice no means either of utilizing the inflow of money metal for price and business stimulation or for effectively checking the

¹ "The gold situation and the limits it has imposed on credit policy is only an expression of the fundamental factors which govern the balance of payments." League of Nations: *Course and Phases of the World Economic Depression*, p. 230.

² Gold was first withdrawn in large quantities by central banks in order to strengthen their position as a result of the suspension of gold payments in Great Britain. It may be observed that when a foreign central bank converts a deposit at the reserve bank into gold the member banks here do not lose cash and hence no offsetting purchases of securities by reserve banks are necessary. But the loss of cash by the member bank comes at an earlier point. Thus the foreign central bank may sell Treasury bills or transfer a deposit at the commercial bank to the reserve bank in order to obtain gold. In either case the member bank is deprived of cash; and if the foreign bank liquidates its holdings of acceptances the market is immediately deprived of cash, unless the reserve banks take over a corresponding supply of acceptances. The same results follow if other foreign institutions sell assets in the United States and put the proceeds at the disposal of their central banks.

ever increasing golden flood.”¹ It is not necessary, as has been implied, that all earning assets of the reserve banks be liquidated before the incoming gold exercises its normal effects.² Reserve banks attempted to increase or at least maintain the volume of earning assets as gold was imported in 1930-31. That they have not been successful is to be explained by an inflow of currency and by the desire of banks to repay their debts, a desire that was strengthened by the conditions current in business. Later, they were more successful; but losses of gold became troublesome and an aggressive open market policy brought additional losses (1932) with the result that a large part of the increase of reserve credit was wasted as far as expansion was concerned. Another point to be emphasized now is that reserve banks have never been inclined to offset imports of gold by sales of assets to any important degree; and they certainly have not been so inclined since 1930. They have thus encouraged the expansion of credit on the basis of incoming gold.

On the other hand the world has much reason to be disgruntled with the functioning of the gold standard. The United States and France have accumulated a very large part of the world's supply of monetary gold; and neither country has taken *adequate* measures to redistribute the surplus supplies at their disposal. In France the peculiarities of the constitution of the money market, the unwillingness to lend abroad, and the scarcity of currency following the inflationary episode have prevented authorities from taking decisive measures; in the United States the pressure of public opinion and Congress, and the complications introduced by the recent speculative boom, have been insuperable obstacles although heroic efforts have been made at least to curb liquidation and deflation. I am inclined to agree with the report of the League of Nations that the fundamental difficulty is that too great a burden has been placed upon the gold standard: impediments to international trade and to necessary economic adjustments have accounted for excessive movements of gold that have been too much for the gold standard. On the other hand, it is undoubtedly true that the failure, on the part of France and the United States, to take adequate action to curb the influx of

¹ J. H. Rogers, *op. cit.*, p. 104.

² “Only when the imported gold has been sufficiently plentiful to replace all the earning assets of our Federal Reserve Banks does the old automatic influence begin to take its traditional effect irrespective of the desire of our central banking authorities.” *Ibid.*, p. 128; *cf.* also pp. 186-187.

gold contributed to the appreciation of gold and thus to the disequilibria of economic conditions resulting from declining prices and the like.¹

The resumption of an international gold standard will require a greater willingness to take heroic measures to discourage imports of gold than governments and the public in both the United States and France are willing to tolerate now.

If the reserve banks were to make full use of incoming gold, open market operations (purchases) on a large scale would have been necessary. If we consider the criticisms evoked by the 1927 policy, which involved relatively moderate open market operations, we can appreciate that such policy would not have been acceptable to the country. The attitude of the reserve banks has been that their resources have not been used because member banks have not been in need of them.² Primary expansion would have been much greater if member banks had not reduced indebtedness. In operating in the open market, reserve authorities learned that they could not easily control the volume of earning assets; purchases of open market investments are not accompanied by large increases in their earning assets until member-bank indebtedness is liquidated, at least in some of the financial centers, and after that, probably only at a relatively slow rate until not only all such indebtedness is liquidated but, perhaps, holdings of acceptances by the reserve banks are reduced to a low level.

Reserve authorities justified their gold policy of 1924 and 1927 on the grounds that a redistribution of gold and the reestablishment of the gold standard in the principal countries of the world would be followed by gold movements that would be a guide to policy.

Free gold movements between countries that have reestablished the gold standard will not only limit fluctuations of exchange rates but will again relate changes in the gold holdings of central banks to credit conditions at home and abroad and thus make changes in their reserve position important factors in their credit policies.³

¹ Cf. League of Nations: *Report of the Gold Delegation of the Financial Committee*, especially Part I (pp. 9-25) and Cassel's memorandum of dissent, p. 74.

² *F.R.B.*, 1927, p. 629.

³ *Ibid.*, 1925, p. 369. In 1927 Warburg said that it was desirable that the United States be forced to pay more attention to the effects of gold movements on our reserve position: the Federal Reserve System will then be less subject to the charge of carrying on arbitrary policies and less exposed to the demands and schemes of dreamers and theorists when once it is recognized that the first duty of a central bank is to preserve

In 1930 Governor Young said that banks "must furnish the credit necessary to meet these demands when they arise, regardless of whether reserve bank policy is directed toward easier or firmer conditions in the money market."¹ (He referred to the demand for currency and for gold.) These two statements reveal the conflict between the aims of reserve policy. If gold movements are significant of underlying economic conditions, why interfere with their effects by offering unlimited credit facilities to assure that they will not have a corrective influence? And yet Governor Young and others have contended that gold movements since 1924 have been in response to central banking policies rather than of a sort to be explained by the non-competitive position of the United States.²

The 1927 policy put the reserve authorities in an embarrassing position. Large losses of gold were viewed with suspicion by some and fear by others; reassuring statements were frequently issued, and at first losses were offset by purchases of securities.³ When losses attained a high level, authorities began to preach the doctrine that surplus reserves were not large and it was necessary to economize our gold.⁴ In the face of losses of a half billion of gold which had been brought about by deliberate policy, the argument that a dear money policy and economy of reserve facilities were justified on grounds of inadequate reserves was not likely to carry much weight. Moreover, dear money was followed by a reversal in the movement of gold: foreign funds were attracted here; thus the en-

the gold standard and that discount policy first and almost automatically must be directed to that end. P. M. Warburg, *op. cit.*, I, 466 (note).

¹ *Mim.L.S.*, 1930 (32), X-6618, p. 595. In his testimony before the Strong Committee in 1926, Governor Strong pointed out that imports of gold of 1.5 billions had been accompanied by a reduction of reserve credit outstanding from 3.4 to 1.2 billions; the Federal Reserve System had made the system of reserves more elastic. Strong's position was not unlike Young's. Hearings: *Stabilization* (69: 2), 1926, I, 470-471.

² *Mim.L.S.*, 1928 (28), X-6041, p. 441. For the period 1922-24, he said: "Of gold movements, since 1922, it might be said that gold came to the United States during most of this period chiefly because this was the only completely unrestricted gold market and the only country that could afford to receive gold rather than goods in part payment for its exports." Cf. *F.R.B.*, 1921, p. 681.

³ A. W. Mellon, "Stabilization of Credit Situation and Gold Movements," *Trust Companies*, 1928 (46), pp. 15-16; *C.F.Chr.*, 1927 (124), p. 3145; *ibid.*, 1928 (126), p. 1141.

⁴ Hearings: *Stabilization* (69: 2), 1926, I, 468; *C.F.Chr.*, 1928 (126), p. 3391; *ibid.*, 1928 (127), p. 2453. Cf. Richmond Reserve Bank, *Proceedings*, 1929, p. 10; *Guaranty Survey*, April 30, 1928, pp. 5-6. In the latter, it was pointed out that the ratio of gold to deposits was approaching the low level of 1920 in spite of the high reserves of the reserve banks.

forcement of a policy of restraint became more difficult and reserve officials were called upon to announce that the policy of dear money had not been introduced to retain the gold which the authorities had originally intended to redistribute.¹ In the period of tension in 1929, European central banks were selling their investments in New York in order to protect their gold. The movement of foreign funds to the acceptance and the security markets is largely explained by withdrawals of deposits in American banks and sales of United States Treasury bills by foreigners. On the other hand, European central banks brought much pressure to bear on banks and other private investors, who were remitting funds to America for investment.² In other words, high rates merely checked the outflow of funds from America.

4. CONCLUSION

The policy of creating a secondary reserve by putting gold certificates into circulation, originally urged by the Treasury and then apparently by the New York Reserve Bank, was approved rather hesitatingly by the Federal Reserve Board. Continuance of imports on a large scale and the increased fear of inflation evidently were instrumental in the acceptance of the Treasury policy by the Board. Over a period of several years, the increase of gold certificates in circulation was above the imports of gold; but by 1926 gold imports sank to a small scale, while the volume of gold certificates in circulation was maintained at a more or less steady level until 1928.

Early in the period in which gold began to be imported on a large scale, reserve officials became aware of the responsibility to prevent any unfavorable consequences that might result from large imports. But only in rare instances were they concerned with the problem of offsetting the inflow of gold; the sale of securities in 1922-23, however, was effected in part to offset at least part of the influx of gold; but the main object might more properly be held to be the neutralization of the effects of large purchases, which had accentuated the inflationary effects of gold movements in 1921-22.

Reserve authorities were aware of the necessity of conserving gold, for part of the large surplus was held in trust for Europe; the

¹ *F.R.B.*, 1929, p. 243.

² *Ibid.*, p. 443; *C.F.Chr.*, 1929 (128), pp. 2006-2007, 2551, 2917-2918; P. M. Brown, *op. cit.*, pp. 124-126.

Board's hostility toward the Treasury's policy is thus explained. But the authorities were not clear concerning the means by which foreign countries were to obtain the gold; inflation was not an acceptable method. But in ruling out inflation, attention was directed almost exclusively to secondary expansion, and the vast inflation introduced by member banks in receipt of increased reserves was not stressed.

The necessity of inflation as a means of drawing gold out of the United States was urged by European authorities and accepted in 1924 and 1927 in a modified form by reserve authorities, who reduced rates and stimulated investments in foreign securities. Monetary reconstruction in Europe in 1924 and 1927 offered an opportunity to effect a redistribution of gold supplies. Inflation might now be effective, for other countries were in a position to bid for gold. Experts generally approved of the policy of the reserve banks in the years 1921-24, when it was held that a tendency toward inflation was checked by a proper gold policy. In later years, however, a similar policy was severely criticized, frequently by the same authorities, on the grounds that hoarding by reserve banks caused declining prices and deprived the rest of the world of its share of the world's gold. These critics considered commodity prices exclusively, for they were aware neither of the limitations on the capacity of the reserve banks to control the volume of earning assets, nor of the fatal criticism to which the System would be subjected if open market purchases on an adequate scale were undertaken.

It is not easy to come to any definite conclusions on the question of a proper gold policy. Hardy, for example, argues that had the reserve authorities sterilized gold, member-bank balances would have been 1,750 millions (the level current in 1921) instead of 2,374 millions, and therefore reserve credit outstanding would have been 600 millions less at the end of 1929 than it actually was.¹ He does not argue that this would have been the proper policy, but later he does contend that the reserve system is to be held responsible for not depriving banks of additional supplies of cash obtained by shifting time to demand deposits and from a reduction of notes in circulation.² I do not see any reason why reserve authorities should deprive member banks of additional reserves resulting from these economies or evasions, which would not hold equally for all addi-

¹ C. O. Hardy, *op. cit.*, pp. 187-188.

² *Ibid.*, pp. 317-318.

tions resulting from the effect of all factors (including gold) that determine the cash position of member banks. Moreover, is it fair to assume that an increase of member-bank balances of 600 millions is to be associated exclusively with the failure to offset imports of gold? An increase in acceptance holdings and Treasury currency is a relevant consideration; and later Hardy himself does consider money in circulation. About all we can say is that numerous factors determine the cash position of banks, and the responsibility of the reserve banks is to determine the most desirable level of member-bank balances (not necessarily a stable level) and to hold, within the limits of its power, balances at that level.¹ Finally we may add that reserve banks probably allowed member-bank balances to rise too rapidly in the period 1921-27.²

¹ Hardy takes a position similar to this at one point. *Ibid.*, p. 318.

² Hardy points out that from 1921-25 the credit base, *i. e.* reserve credit, monetary gold, and Treasury currency was expanding; but from 1925-29 it was relatively stable. *Ibid.*, pp. 184-185.

It may also be pointed out that a complete sterilization would have been impossible if member banks had not been heavily indebted to reserve banks in 1921; and reserve banks can be given only a small part of the credit for sterilizing incoming gold if the imports are offset by a reduction of indebtedness of member banks. From 1921 to 1929, the average daily supply of monetary gold increased by approximately 1,100 millions; but the total acceptances and securities (average daily) held by reserve banks in 1921 were *only* approximately 350 millions.

CHAPTER XXI

RESERVES OF RESERVE BANKS

I. METHODS OF ALLOCATING RESERVES — 1914-18¹

IN THE Federal Reserve Act it was provided that a reserve of 40 per cent was to be held against notes in circulation, one of 35 per cent against deposits.² This relatively simple provision has been a subject of constant discussion, and the manner of distributing the cash of the reserve banks between these two reserve funds has been an important question of policy.

In the early years reserve banks deposited gold with the Federal Reserve Agent against notes outstanding in order to reduce their obligations on such notes; this gold and the outstanding notes against which it had been deposited were not included in the total of reserves and notes outstanding. In estimating the ratio of reserves against liabilities, the gold held by the agent was excluded and the remainder of the gold and lawful money considered reserve against liabilities.³ As early as 1916 reserve authorities raised the question of the desirability of establishing a conventional reserve ratio appreciably above the legal minimum; thus inflation might be staved off.⁴ In June, 1917, the Board announced the manner of allocating reserves under the amended law. Gold held by the agent would now be included in the collateral and reserves against notes; it could not be included in the reserve against deposits.⁵

Reserves against notes had constituted 100 per cent of the notes

¹ Charts X and XI in the statistical part of this book as well as the discussion on pp. 764-770 ought to be consulted for additional consideration of this general problem.

² I do not here enter into the general problems of reserves of central banks. Keynes put convincingly the following points: a central bank should not tie up too much gold as reserves against notes; the reserves to be held should be determined by the balance of payments rather than the notes outstanding, and legal requirements should be given up; member banks should contribute adequate resources to the central reserve, for they are enabled to carry on operations profitably and with freedom from worry when the central bank has an adequate reserve. J. M. Keynes, *op. cit.*, II, 70-72, 264-265, 271-275. Similar opinions are expressed elsewhere. Royal Institute of International Affairs, *International Gold Problem*, *passim*.

³ *F.R.A.*, 1916, p. 25.

⁴ *Ibid.*, 1918, p. 802; *cf.* P. M. Warburg, *op. cit.*, I, 706, 729-730, 741.

⁵ *Mim.L.S.*, 1917, x-226, June 20, 1917.

outstanding; now surplus reserves were to be equally divided between reserves against deposits and those against notes. At this time the Board also gave the reserve banks permission to hold a limited amount of gold abroad.¹ The gold coverage against notes declined relatively as commercial paper was substituted for gold and the agents transferred gold to reserve banks for the purpose of equalizing the reserves against notes and deposits.² In published statements the Board compared the total reserves to the total liabilities and indicated the surplus reserves available.³ As the ratio of gold reserves continued to decline in 1918, the Board on August 7, 1918, wrote a confidential letter to the reserve banks in which they were requested to put aside 35 per cent of gold and lawful money against deposits, and to allocate the gold not thus accounted for against notes. Later, it was determined that the reserve banks were to be spared the payment of the tax and the increase in discount rates when reserves against notes were reduced below the legal limit of 40 per cent; the Board was prepared to allow the reserves against deposits to decline to 20 per cent and contemplated the possibility of recommending a modification of the provision that a tax be collected when reserves against notes declined below the legal minimum.⁴ The Board explained more fully the policy of allocating reserves in a memorandum of December 20, 1918.⁵

2. POST-WAR INFLATION AND ECONOMIES, REAL AND UNREAL

The post-war period of inflation witnessed several important developments. To a proposal by the Board that credit be given remitting reserve banks on the day of receipt for clearing house items, whether or not received in time for the day's clearing, the transit

¹ *F.R.B.*, 1917, pp. 504, 507.

² *Ibid.*, 1918, p. 132.

³ *Ibid.*, pp. 130-131.

⁴ *Min.L.S.*, 1918, X-1113, August 7, 1918.

⁵ *Ibid.*, X-1323, December 20, 1918. The Board distinguished *actual* reserves (combined reserves against notes and deposits) from *legal* reserves (40 per cent against notes and 35 per cent against deposits). Gold with the Federal Reserve Agent might be counted as part of the note reserve, but not as part of the deposit reserve. Gold under the banks' exclusive control (including gold in vaults, in the Gold Settlement Fund, and with foreign agencies) might be counted as part of the combined reserve. The Redemption Fund maintained by the Bank is part of the 40 per cent legal reserve against Federal reserve notes in actual circulation, but cannot be counted as part of the 100 per cent collateral cover of notes issued to the Bank less amount returned (outstanding notes). The gold balance to the credit of the Federal Reserve Agent in the Gold Redemption Fund, however, is part of the 100 per cent collateral and the 40 per cent gold reserve.

managers and auditors of the reserve banks replied that the acceptance of this suggestion would be a step backward in the scientific treatment of float.¹ (The float is the uncollected items in excess of deferred availability items: reserve banks to some extent give member banks deposit credit before the items are collected.) It is perhaps significant that this proposal was under consideration in the midst of the rapid inflation of 1919.² Also, in this period a large deposit of gold with the Bank of England was included as reserve.³ Early in 1920 the Board determined that in the future no deduction would be allowed from gross deposits of reserve banks and no reserves would be required against transit items or other deferred availability credits which represented deposits not immediately available. Counsel ruled that there was no authority for the practice of deducting uncollected items: Congress intended that no deductions be allowed from gross deposits and also that items received for collection and deferred availability credit would not be included as deposits. Under the proposed method of calculating reserves, these would be reduced from 45.5 to 44.1 per cent.⁴ It is perhaps significant that this proposal was not put into effect until early in 1921.⁵

The required reserve against notes was now set aside first, and the remainder was set against deposits; the reverse had been the practice previously.⁶ Counsel Harrison pointed out that gold in the agents' possession is legally available exclusively against notes, but gold in the possession of the Board might be held against either notes or deposits. Free gold, that is, gold not required to cover minimum requirements, might be used exclusively against notes, for the re-

¹ *Mim.L.S.*, 1919 (11), x-1725, p. 881. The Board modified its suggestion: it was admitted that the daily transfers would reduce the deposits against which reserves were held. *Ibid.*, 1920 (12), x-1835, pp. 182-184; G. J. Seay, "The Gold Settlement Fund," *Annals*, 1922 (99), p. 103; cf. W. E. Spahr, *Clearing and Collection of Checks*, p. 306.

² In November, 1917 the Board pointed out to reserve banks that the float was too large; the resources available against notes were therefore reduced. The Board suggested that the interest rate charged in dealing with transfers, purchases of checks or bills for collection and similar items which constitute the float, should be at least at the rate on 15-day advances and possibly higher where the Bank is inclined to invest too much in float. The percentage of float to earning assets and to deposits of reserve banks was given for several weeks for each bank. The latter percentage for the System was 11, 9, and 8 in successive weeks and at a much higher level for western banks. *Mim.L.S.*, 1917, x-476, November 6, 1917.

³ *Ibid.*, 1919 (11), x-1666, p. 606; *F.R.B.*, 1919, p. 917-918.

⁴ *Mim.L.S.*, 1919 (11), x-1766, pp. 1007-1010.

⁵ *F.R.B.*, 1920, p. 3; *Mim.L.S.*, 1921 (14), x-3071, p. 308; *C.F.Chr.*, 1921 (112), p. 1194.

⁶ *Annalist*, 1920 (15), p. 285; *C.F.Chr.*, 1920 (110), p. 816.

serve banks might transfer their gold to the agents' fund or the Gold Settlement Fund.¹ Reserve banks might therefore hold a reserve of 100 per cent against notes. Harrison also pointed out that the authorities could thus avert the increase in discount rates required when the reserve against notes was deficient.²

3. A MORE ELASTIC RESERVE SYSTEM?

In 1921 Dr. Miller suggested that the reserve ratio ought to be a more sensitive and immediate indicator of changing conditions, and hence the reserve ratio should rise and fall quickly with fluctuations in the volume of credit outstanding. He proposed to introduce a more sensitive system by reapportioning the reserves so that the note would become virtually a gold certificate, and hence the reserve against deposits would be smaller and more sensitive to movements in its own volume.³ The question was discussed by the governors in 1921.⁴ In 1923 the Board in a memorandum on the subject apparently held that since the Act required full information concerning reserves, the Board ought to publish separately the two reserves; that the Board had plenary power over the security against notes and hence might require the issue of notes against gold collateral. In the opinion of the Board, the extraordinary accumulation of gold in the last two years or more made it more urgent than ever that a system harmonious with an effective regulation of the currency and a proper administration of credit by the Federal Reserve System should be introduced. An actual allocation of reserve money was currently made, but it was not published. The reserve against de-

¹ *Mim.L.S.*, 1920 (12), x-1894a, pp. 344-346.

² *Ibid.*, pp. 347-350. The Counsel also made the following comments: the tax payable for a deficiency of deposits might be infinitesimal. A deficiency in the reserve against deposits does not require an increase in the discount rate, for the provisions for an increase in the discount rate and the tax required if reserves against notes were deficient, are in the same paragraph and they were both introduced by the Senate. Eight reserve banks paid a total tax of \$24,900 as penalties for deficient reserves in 1920. *F.R.A.*, 1920, pp. 46-47. The rate of tax determined by the Board early in 1920 was most moderate. *Mim.L.S.*, 1920 (12), x-1880, p. 293.

³ A. C. Miller, "Federal Reserve Policy," *American Economic Review*, 1921, pp. 195-203.

⁴ *Mim.L.S.*, 1921 (14), x-3086a, p. 375. Is it advisable to prevent any undue increase in the banking reserve by depositing incoming gold with reserve agents to be counted as reserves against notes? The Board would then require the publication of reserves against notes and reserves against deposits, and might consider a redistribution if the reserves against notes declined to a designated point. (Topics for Joint Conference of Board and Governors of Federal Reserve Banks.)

posits in March, 1923, was 55, that against notes 94 per cent. The maximum against deposits was 71 per cent (Richmond) and against notes 111 (New York); the minimum 45 (San Francisco) and 50 (Dallas). The Board suggested a reserve against deposits of 57 and against notes of 93 per cent. No reserve bank would then have a reserve against deposits of less than 50 per cent, and the New York Bank would have a reserve of 100 against notes and 70 per cent against deposits. All reserve banks but New York and Minneapolis would have a reserve against deposits of 50 per cent. Another suggestion was that the New York Bank might buy securities and thus reduce its reserves; it held but 55 of the total of 563 millions of securities held by the System.¹ Hamlin² objected to Miller's position, and the Federal Advisory Council objected to the publication of three reserve ratios.³ But the Board has in recent years sometimes published figures for the reserve against notes and deposits separately, and in January, 1924, the official figures included for the first time "gold held exclusively against Federal reserve notes."⁴

In April, 1932, the gold held as collateral against notes was 2,275 millions and the notes in actual circulation 2,566 millions; the gold thus available as reserve against notes was almost 90 per cent of the notes in circulation. The remainder of the reserve (gold and other) was 938 millions, or 42 per cent of the deposits outstanding. Eligible paper held as collateral was 562 millions (total rediscounts and acceptances were 604 millions). Gold held against notes was only slightly above the amount required to cover notes not covered by eligible paper *and* 5 per cent of the notes not covered by gold. When eligible paper is scarce, gold is necessarily largely diverted to the note account. Reserve authorities now (1932) seem disposed to allocate surplus gold to the note account; otherwise securities in larger quantities must be substituted for gold in the note account.⁵

¹ *Mim.L.S.*, 1923 (18), x-3669, pp. 215-220.

² Hamlin did not object to the publication of separate reserves, but he objected to the excessive protection of notes and excessive fluctuations in reserves against deposits. *Ibid.*, 1924 (20), x-3966, pp. 96-100.

³ "The council feels that fluctuations in the gold strength, as indicated in the discussions of the previous question, are of minor significance in present circumstances and that by giving three percentages, too much emphasis would be laid upon fluctuations, which, as a consequence of the proposed grouping, are likely to appear more pronounced. Moreover, it is to be feared that during a period of economic strain, always recurring from time to time, the Board may be charged with artificially manipulating the reserve percentages." *F.R.A.*, 1924, p. 278.

⁴ *F.R.B.*, 1926, p. 476; B. H. Beckhart, *op. cit.*, p. 419.

⁵ *F.R.B.*, 1932, pp. 286, 293.

4. ECONOMIES AND FREE GOLD

In 1929 the Governors' Conference considered the possibility of abolishing the Agents' Redemption Fund and maintaining only a Bank Redemption Fund; the former had been provided at the suggestion of McAdoo in 1916, when several reserve banks had deposited an amount of gold with the agent equivalent to the volume of notes outstanding and hence were not required to keep a redemption fund with the Treasury. Fear was expressed in 1929 that the maintenance of two funds would exhaust the reserves against deposits.¹ It was also suggested by a committee appointed by the governors that the current practice of including with notes in circulation large amounts that had been sent to the Treasury for redemption be modified. Notes deposited with the agent should be cancelled immediately. It was pointed out that several banks, having a large amount of gold on deposit with agents as collateral, found it difficult to maintain reserves above the minimum.²

In the last few years there has been much discussion of the amount of free gold available; in the midst of the inflation of 1928-29, this was necessarily a question of importance. Authorities are now beginning to pay attention to the question because the recent cheap-money policy has raised some doubts concerning the capacity of reserve banks to expand appreciably. Early in 1930 the Governor of the Board defined *excess* and *free* gold and pointed out that practically all reserve banks now find it necessary to deposit more gold as collateral against notes outstanding than is required as reserves against notes in circulation. The Governor suggested the possibility of reducing the volume of notes in tills of reserve banks as a means of increasing the amount of free gold.³ Beckhart estimates that the excess reserves at the end of 1930 were but 691 instead of the 1,535 millions to be inferred from the published reserve ratio. He points out that as the amount of eligible paper declines, gold must be sub-

¹ *Mim.L.S.*, 1929 (30), St. 6248, pp. 489-492.

² *Ibid.*, 1929 (31), X-6349, pp. 40-41.

³ *Ibid.*, 1930 (32), St. 6452, pp. 694-695.

Excess Reserves: Deduct from cash reserves 35 per cent required against deposits and 40 per cent required against Federal reserve notes in circulation.

Free Gold: Deduct from excess reserve amount by which gold required as collateral against outstanding notes and for Gold Redemption Fund exceeds 40 per cent of the notes in circulation.

Excellent discussions are also to be found in *F.R.B.*, 1931, pp. 495-496; *ibid.*, 1932, pp. 143-144.

stituted as collateral against notes, and that with imports of gold the amount of free gold will not increase correspondingly if member banks apply it to the reduction of their debts at the reserve banks. Moreover, most of the free gold is concentrated in New York and Chicago; adjustments may be made, however, through sales of securities between reserve banks.¹ The Board declared in 1928 as a warning to expansionists that the reserve ratio could be improved but a few per cent by paying out reserve notes for gold certificates; the free gold was not so large as it seemed to be. Moreover, the volume of eligible paper was 400-500 millions above the average for the preceding five years, and if the excess were liquidated, gold would have to be substituted.² In criticism of these views, it may be held that surplus gold is retained by reserve banks to meet demands for exports or increased requirements against notes and reserve deposits. Hence any utilization of the surplus gold for these purposes will provide additional collateral, for member banks would be compelled to borrow. It is, however, possible for the reserve banks to purchase investments not eligible as collateral, thus relieving members of the need of borrowing.³ Burgess has contended that a reduction of rediscounts to a normal level would reduce the amount of free gold, as well as that if increased rediscounts bring higher rates, the gold released can scarcely be termed free gold. He is not convincing on the latter point.⁴

¹ B. H. Beckhart, "The Free Gold of the Federal Reserve Banks and Its Relation to Credit Policy," *Annalist*, 1931 (37), pp. 102, 147-151; also see W. R. Burgess, "The Money Market in 1928," *Review of Economic Statistics*, 1929, pp. 22-23; "The 'Free Gold' of the Federal Reserve System and the Cheap Money Policy," *Chase Economic Bulletin*, September, 1930.

² *F.R.B.*, 1928, pp. 613-614. Anderson suggested in September, 1930 that although the free gold apparently amounted to 836 millions, the actual figures were not in excess of 400 millions, for the calculation must be made for each reserve bank rather than for the System as a whole; and Anderson allowed for the possibility of transfers of earning assets among reserve banks for the purpose of maximizing the amount of free gold. The point is that paper eligible for collateral may be so divided among reserve banks that one bank may have a large surplus of eligible paper and another a deficiency. "The 'Free Gold' of the Federal Reserve System and the Cheap Money Policy," *Chase Economic Bulletin*, September, 1930, pp. 5-6.

³ As I look this over now (February, 1932), it seems necessary to add the following: The Glass-Steagall Act makes possible rediscounts of paper not eligible as collateral. On the other hand, Government securities now become available as collateral and hence the distinction between free gold and excess reserves is likely to be of less importance in the future. Public-No. 44-72d Congress [H. R. 9203].

⁴ W. R. Burgess, "The Money Market in 1928," *Review of Economic Statistics*, 1929, pp. 23-24.

Perhaps too much attention has been given to the problem of free gold; undoubtedly the increased attention directed toward that variable is to be explained in part by a desire to confuse the issue and strengthen the control of the reserve banks. That point is worth making even if it is granted that the emphasis on free gold is a necessary result of the deficiency in collateral and is to be justified by the requirements for collateral provided in the Act. In 1928-29 the authorities put the emphasis on free gold, because in that manner they could minimize the amount of reserves available for further expansion; but in 1930-31 they were to regret the publicity given to this view, for they now had to minimize the importance of losses of free gold.¹ They could, however, point out that the reduction of free gold was not so large as the loss of gold. That brings us to the fundamental point. Surplus gold is available for future expansion; the surplus will be available for export or future expansion regardless of whether the surplus — that is to say, the amount in excess of the legal reserves — is free gold or not, unless the reserve banks purchase assets ineligible as collateral. This possibility has been reduced with the enactment of the Glass-Steagall Bill, and, more recently, by the Act of March, 1933, which allows the issue of Federal Reserve Bank Notes against all sorts of assets.

When the surplus is being consumed, the country is losing gold, and the attempt to emphasize the point that free gold is not reduced brings the danger that sufficient attention will not be given to corrective measures if they are needed. The Glass-Steagall Act, however, reduces the importance of this problem. Recent history brings out one important aspect of the question, namely, that confidence may be strengthened if gold tied up as collateral is released in *anticipation* of needs by liberalizing the definition of paper eligible for collateral.

Now let us summarize the main issues involved in the question of free gold. In the early years of the System a vigorous fight was necessary to legalize the issue of notes against gold and its inclusion as collateral. The scarcity of collateral was necessarily a troublesome problem when rediscounts were at a low ebb. In 1928 the problem was once more raised. It was pointed out by reserve au-

¹ From the latter part of 1929 to the middle of 1931, the System lost approximately 400 millions of free gold in spite of the very large imports; and by the latter part of 1931, the loss of gold was reflected in an additional reduction of free gold by 100 millions.

thorities that rediscounts were at an abnormally high level, with the implication that the public might have an exaggerated opinion of the surplus reserves available: a reduction of rediscounts to a normal level would reduce the amount of free gold. Thus the authorities attempted to divert attention from surplus gold to free gold. But they did not point out that when rediscounts and acceptances held by reserve banks were at a more normal level, there would probably be little need for a large amount of free gold. In truth the amount of free gold was reduced in 1930, in spite of the large inflow of gold, because monetary conditions were easy and reserve banks purchased a large quantity of securities.

Conditions became less satisfactory in the second half of 1931. Large losses of gold did not bring *corresponding* losses of free gold; but the free gold at the disposal of the System declined and was not large enough to allow the unrestricted purchases of securities (not available as collateral) so that losses of gold and withdrawals of currency, in so far as they were not financed by purchases of acceptances, could not be financed by purchases of securities. In other words, reserve banks were forced to put the additional credit out for the most part in acceptances and rediscounts. Therefore the Board recommended to Congress new legislation which would give the reserve banks more discretion in the types of assets they might purchase.¹ The Glass-Steagall Act allows reserve banks to use Government securities as collateral;² and the Board by administrative ruling has provided for the release of gold by the substitution of securities when the amount of free gold declines to a low point.³

¹ *F.R.B.*, 1932, p. 143.

² Public-No. 44-72d Congress [H. R. 9203], Section 3.

³ *F.R.B.*, 1932, pp. 285-287.

On May 4 the notes outstanding were 2,736 millions and the eligible paper 510 millions, leaving 2,226 millions to be covered by gold. "In determining upon a formula derived from these considerations the Board decided that in existing circumstances when the margin between (1) total cash reserves of the reserve banks (in excess of the 35 per cent against deposits) plus eligible paper at the 12 Federal reserve banks, and (2) Federal reserve notes in actual circulation shall fall below \$400,000,000, the reserve banks shall be authorized to pledge a sufficient amount of United States Government securities with the Federal reserve agents to release enough gold to bring this margin up to the \$400,000,000 level."

The margin is considered adequate to provide for notes held in vaults of reserve banks, the requirements of the redemption fund and slight margins above requirements for reserves against deposits and collateral. This cautious policy proved to be a mistake early in 1933 -- too much gold remained tied up in the collateral account.

In the statistical part of this book, this subject is discussed once more. The fluctuations in the amount of free gold both for the System and individual reserve banks are studied.¹

5. CONCLUSION

Legislators responsible for the Federal Reserve Act did not envisage the knotty problems that were to arise over the question of the distribution of reserve banks' cash reserves; reserve authorities have retained more discretion and more important powers than were anticipated. Congress provided for a system of note issue modelled after the German rather than the English system in its provisions for reserves; it was certainly not the intention of Congress that reserve authorities be allowed to convert our system of reserves into one similar to the English system by a proper allocation of surplus reserves; but this object has been achieved at intervals and has been seriously discussed as a permanent policy, although the Act makes no provisions for a combined reserve. Nor was it intended that reserve authorities evade the disciplinary effects of a tax and an increased discount rate, which are provided when the reserves against notes are reduced below the legal minimum; but reserve banks have thus disregarded the spirit of the Act.

In another aspect, the development has been along unexpected lines. It was provided originally that notes outstanding were to be covered by 100 per cent collateral and 40 per cent of gold because the theory demanded that notes should be issued according to trade demands and hence should be secured by self-liquidating paper. Although this provision has been liberalized by amendments that reduced the total collateral including gold to 100 per cent and allowed the inclusion as collateral against notes paper that could not be termed self-liquidating, the requirement of 60 per cent collateral of eligible paper has in recent years tended to reduce the amount of free gold in the possession of the reserve banks.² But the reduction is of temporary significance. In so far as the scarcity of collateral is a restraining factor in a period in which reserves are

¹ Charts VIII and IX and the discussion on pp. 761-763. Also relevant are Charts X and XI and the discussion on pp. 764-770.

² The Glass-Steagall Act corrects this situation unless accommodation obtained by the use of paper now made eligible under the provisions of this Act, and not eligible as collateral, is substituted in large amounts for accommodation obtained previously by the presentation of paper eligible for collateral.

large and, therefore, in which inflation threatens, the apparent unavailability of excess gold may be advantageous; but the reserve banks may be unduly hampered by the apparent unavailability of a large part of their gold, and the attitude of the rest of the world should also be considered. It should also be noted that reserve banks are confronted with an unusual situation; their reserve position may be strengthened by rediscounting more freely, for thus more collateral will be obtained and an equivalent amount of gold will be released; but the additional free gold thus made available will be reduced by 35 per cent to the extent that deposits are increased, for a reserve will be required against additional deposits created. It was not intended that the requirement for collateral should reduce the gold available for reserves; on the other hand, if the 1914 requirements had been adhered to, the country would command inadequate supplies of reserve notes.

Reserve authorities have allocated their gold supplies between the two reserves in the manner demanded by monetary conditions. When reserves were large, the tendency was to tie up relatively large amounts as reserve against notes and thus reduce the surplus available for increased creation of deposits. When danger of expansion threatened, such policies were discussed and to some extent carried through. The public looked to the reserves as a guide to policy and for justification or criticism of past policies, and reserve authorities realized the possibility of adjusting the published reserves to give the impression of large or small surpluses according to conditions. In periods when reserves were low, there was a tendency to divide them equally between notes and reserves and also to increase available supplies; as for example in 1919, by including gold abroad as reserve and reducing float, or as suggested in 1930 for future use, by reducing tills of reserve banks. On the other hand, reserve authorities have not made so effective use of this instrument of policy as has sometimes been desired, for the danger of criticism for manipulating reserves is not to be minimized. The allocation was frequently not published, and it is to be remembered that the law makes no provision for a combined reserve.

CHAPTER XXII

RESERVES OF MEMBER BANKS

I. INTRODUCTION

THE classification of cities for reserve purposes into three groups was similar to the classification in effect under the national banking system and is not easily justified; a classification according to the type of deposits received would be more acceptable. Another subject of contention has been the problem of till money. Until 1917 member banks were allowed to keep a designated proportion of their cash reserves in their own vaults; but the amendments of 1917 provided that all legal reserves were to be held with reserve banks and the amount of cash in tills was to be at the discretion of the banks. Country banks have not gained so much relatively as have other banks from the amendments of 1917, for they have not been able to reduce their tills to the extent that other banks have reduced their holdings of cash. Authorities have also been vexed by the problem of the classification of time and demand deposits, as well as by the question of deductions to be allowed in calculating net demand deposits against which reserves are to be held. The attitude of reserve authorities toward member-bank reserves has been colored by monetary conditions. The tendency was to be liberal when expansion was favored and to interpret the law rigidly when a policy of restraint was called for.¹

2. CLASSIFICATION OF CITIES FOR RESERVE PURPOSES

As early as 1916 the Federal Advisory Council pointed out that classification of banks for reserve purposes on the basis of banking capacity and population might be justified; but the pre-war basis of classification according to the right to hold bank deposits was no

¹ Thus in 1928 reserve banks requested of the Board that certain applications for a reduction of reserve requirements be not granted (member banks in outlying sections of cities might on application be classified as banks in districts with smaller reserve requirements). *Mim.L.S.*, 1928 (29), x-6176, pp. 338-339; cf. *ibid.*, 1924 (21), x-4221, p. 825.

longer justified.¹ In truth the current system was modelled on the pre-war system. The Governor of the Board was considering the possibility of including as central reserve cities, thus increasing reserve requirements for banks there, all those in which a reserve bank or its branch was situated.² Such a modification may be justified, for banks in these cities required very little till money and held large bankers' balances. A few months later another confidential memorandum was issued in which it was suggested that banks in these cities should hold reserves of 15, 10, and 3 per cent against bank, demand, and time deposits, respectively, others to hold reserves of 15, 7, and 3 per cent against the three types of deposits.³ The later proposal involved a reduction, the earlier an increase, of reserve requirements. Perhaps it is significant that the first suggestion was made in June when post-war inflation was just beginning to become a source of anxiety, and the latter in October when measures introduced to check inflation would have required more courage. The problem of classification of cities and reserves on a more scientific basis was not solved then; in 1928, Governor Platt of the Federal Reserve Board commented on the anomaly of a 7 per cent reserve requirement against demand deposits for banks in cities of considerable size, Providence, Newark, and others, which held appreciable amounts of bank deposits.⁴ It may be recalled that legislation enacted in 1918 allows reserve banks to reclassify banks in outlying parts of cities.⁵ Thus reserve requirements have been reduced for many banks from 13 to 10 or from 10 to 7 per cent.

3. PROPOSALS FOR REFORM, 1927-29

It is rather significant that the problem of reserves aroused intense interest once more in the years 1927-29. Early in 1927 the Board raised several important questions and ventured the opinion that the reserve banks were more interested in the question of reserves of member banks than in any other. The Board now proposed that Regulation D be amended with a view to strengthening

¹ *F.R.A.*, 1918, p. 792; cf. *ibid.*, 1919, p. 528.

² *Mim.L.S.*, 1919 (10), x-1576, pp. 389-390.

³ *Ibid.*, 1919 (11), x-1699, p. 814. The reserves required under the law are 13, 10, and 7 per cent against demand deposits according to the class of city the bank is located in, and 3 per cent against time deposits.

⁴ Hearings: *Brokers' Loans* (70: 1), 1928, pp. 78-79.

⁵ Public-No. 218-65th Congress [H. R. 11283].

the enforcement of reserve requirements and checking the tendency of member banks to evade them.¹ A few months later the final draft of the Board's regulations, incorporating most of the provisions in the earlier draft, was submitted by counsel of the Board to the law committee of the reserve banks.² Apparently several reserve banks objected strenuously to the introduction of daily reserve requirements; perhaps that objection explains the introduction of bi-weekly requirements.³ Previously reserves had been computed on a weekly basis, and the result was that on Thursday or Friday, member banks would either lend liberally or borrow, according to whether reserves had been above or below the required level.⁴ It was also now proposed to correct the mistaken impression that the payment of a penalty upon the reduction of reserves below the legal limit absolved member banks of all responsibility.⁵ In 1928 the Board had under consideration several radical amendments of Section 19 (reserves of member banks), including a complete and logical revision of reserve requirements; but although the Board apparently favored such amendments, it was not considered expedient to encourage tampering with the Act by Congress at this time.⁶

4. TILL MONEY

From the time the reserve system was first introduced, the question of the amount of money to be kept in tills has perplexed authorities. Curtiss of the Boston Reserve Bank has been particularly

¹ *Mim.L.S.*, 1927 (26), X-4830, pp. 230-234. The Board suggested for consideration of the Governors' Conference the following proposals: deposits permitted to be withdrawn by check or otherwise without presentation of pass book should not be considered as savings accounts; trust funds not segregated should be included as deposit liabilities; reserves should be computed on the basis of daily instead of average weekly balances; the responsibility for the payment of penalties for deficient reserves in the future should be assumed by the Board: reserve banks would thus be saved the embarrassment of the charge of intent to increase their profits.

² *Ibid.*, X-4873, pp. 397-402.

³ *C.F.Chr.*, 1928 (126), p. 197.

⁴ *Ibid.*, 1925 (120), pp. 1038-1039.

⁵ *Mim.L.S.*, 1927 (26), X-4873, pp. 401-402; *ibid.*, 1927 (27), X-4997, pp. 400-401. A progressive penalty was provided for violations of the reserve requirements for extended periods. In 1919 the Board had attempted to introduce uniform regulations for the enforcement of penalties for deficient reserves, including a progressive tax. The Board established a rate of 2 per cent above the reserve rate on 90-day paper as well as a progressive rate; but the administration has not been uniform. *Ibid.*, 1919, X-1459, X-1584, pp. 197-198, 393; *ibid.*, 1922 (17), X-3579, pp. 1235-1236.

⁶ *Ibid.*, 1928 (28), X-5090, p. 320; *ibid.*, 1928 (29), X-6201, p. 391. The Federal Advisory Council was not enthusiastic concerning proposed revisions of Section 19. *F.R.A.*, 1928, p. 228.

interested in this question as a member of a committee appointed to investigate the subject.¹ Before the introduction of the reserve system, banks outside of Boston carried in reserves or uninvested funds 21 per cent of their gross deposits; in 1916 they thus invested 23 per cent of their gross deposits. In the earlier period the banks held 7 per cent in cash and 14 per cent in reserve balances and uncollected checks; in the latter period, 6 in cash, 12 in balances and uncollected checks, and 5 per cent with reserve banks. The amendment of 1917 provided relief for the country banks, which alone had not profited from the reduction of reserve requirements. In 1925 the typical country bank in the Boston District held 3 per cent of its deposits in cash in vaults,² and owing to the introduction of the Federal reserve collection system, uncollected checks and balances with correspondents had been reduced to 7 per cent; the net reduction of the ratio of uninvested funds to gross deposits was 6 per cent.³ Country banks also profited from the adjustment for cash in transit in both directions;⁴ reserve balances were thus in fact

¹ Cf. Boston Reserve Bank, *Proceedings*, 1925, pp. 9-14, for a summary of the results of Curtiss's investigations.

² Governor Crissinger estimated in 1923 that all national banks held 2.5 per cent of their deposits in cash in their vaults as compared to 1.7 per cent for state member banks and 3.2 per cent for non-member banks. Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 5.

³ Compare the figures presented in H. P. Willis and W. H. Steiner, *op. cit.*, pp. 70-71 and E. W. Kemmerer, "Inflation and High Prices," *Proceedings of the Academy of Political Science*, 1920 (9), pp. 4, 9. The former estimated that all banks carried 30 per cent of their funds uninvested (included were 17.9 per cent *due from banks*) in the period 1909-13 and 19.2 per cent (7.7 per cent *due from banks*) in the period 1922-23. The corresponding figures for country banks were 26.5 (18) and 17.6 (8.8) per cent. The cash on hand of country banks was reduced from 7.9 per cent in the years 1909-13 to 2.7 per cent in 1922-23. The corresponding figures for banks in central reserve cities were 20.4 per cent and 1.4 per cent. More recently, Bell estimates that the uninvested funds have been reduced from 28 per cent in 1913 to 15 per cent in 1931. J. W. Bell, *op. cit.*, p. 196.

Governor Case of the New York Bank pointed out in 1923 that country banks were required to hold as large reserves then as in 1913. He would add to the 7 per cent required, 3 per cent in vaults, float of $2\frac{1}{2}$ per cent, and balances with correspondents (now not included as reserves) 2 per cent. Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 52.

⁴ The Board formally approved this practice in a resolution of January 18, 1924. *Mim.L.S.*, 1924 (20), X-3593, p. 75. The Board was anxious that all banks be treated fairly; banks outside of reserve cities were at a disadvantage. The Board therefore did not object to the practice of including currency in transit with reserves of member banks. Governor Strong objected on the grounds that it was contrary to sound policy and reserves must be in the legal custody of reserve banks. *Ibid.*, X-4075a, p. 403. The establishment of currency depots was another method of relieving country banks. *Ibid.*, 1929 (30), X-6251a, p. 203.

reduced by 1 per cent. In 1925 sixty country banks in the Boston District were still carrying balances with correspondents materially above the 5 per cent considered normal; twenty held balances with other banks of over 20 per cent. Thirty banks held cash in tills in excess of the normal level of 3 per cent, and forty-five banks were incurring a loss of cash by using roundabout methods of routing checks.

Late in 1923 the Board pointed out that although time and demand deposits had increased 8.5 billions since 1913, vault cash had declined by 650 millions, and balances required with reserve banks together with till money carried by member banks were considerably less than the amount of cash formerly carried in vaults.¹ McFadden's proposal of 1925 that member banks be allowed to include till money as reserve to the extent of 40 per cent of their reserves, increased interest in the controversy.² It was pointed out by reserve officials and others that the acceptance of this suggestion would add approximately a half a billion dollars to the cash reserves of members.³ McFadden thus appealed to the country bankers for support of other provisions in his bill.⁴ The proposal was universally condemned, especially as it was made in a period of threatened inflation.

A somewhat similar effort to reduce reserve requirements was involved in the struggle to obtain a more efficient clearing system. The question of giving immediate credit for checks deposited with reserve banks was raised prominently in the Pascagoula Case; if the appellant had won the case, the reserves of member banks would have been increased by approximately one fourth, or 500 million dollars.⁵ It was contended by Governor Harding that reserve banks

¹ *C.F.Chr.*, 1923 (117), p. 2168. A writer in the *American Bankers' Association Journal* made the following estimate of the percentage of cash to deposits:

| | In Vault | With Correspondent | At Federal Reserve Banks | Total |
|---------------------|----------|--------------------|--------------------------|-------|
| June 30, 1914 | 11.9 | 16.2 | ... | 28.1 |
| June 30, 1922 | 2.0 | 7.6 | 7.0 | 16.6 |

American Bankers' Association Journal, October, 1924, p. 212.

Agger estimated that the total of working reserves was reduced from 34 per cent in 1917 to 22 per cent in 1924. E. E. Agger, "The Proposal to Demobilize the Federal Reserve System," *ibid.*, June, 1925, p. 726.

² L. Alexander, "The Federal Reserve Board Studies Legal Bank Reserves," *ibid.*, January, 1926, pp. 494-495.

³ *C.F.Chr.*, 1925 (120), p. 2644; *Mim.L.S.*, 1925 (22), p. 339.

⁴ Boston Reserve Bank, *Proceedings*, 1925, pp. 23-27.

⁵ U. S. Supreme Court, 1925. *Pascagoula National Bank vs. Federal Reserve Bank*

were required to accept checks at par (Section 16) and hence no charge could be imposed on the depositing bank. Counsel for the appellant contended that although the drawee bank was allowed to collect exchange, the reserve authorities prohibited such payments, and that the authority to collect was derived from the fact that the reserve bank acted in the capacity of an agent. Harding's reply was that the question of the capacity in which the reserve bank operated was not the determining factor; the amendment of Section 19 which provided that reserve banks were not to count checks deposited but not collected as cash, was introduced in the same act which provided prohibitions against such charges, affording additional evidence of the intention of Congress that checks in process of collection were not to be counted as cash.¹ The Atlanta Bank pointed out that the amendments to Section 19 provided that reserve should include the *actual net balance*, and also that the granting of immediate credit would jeopardize the safety of notes and reduce the capacity to issue them, for member banks would repay their debts, reducing the volume of eligible paper.² Counsel for the Reserve Bank before the Supreme Court contended that all provisions of the Act were harmonized around the central thought of *real* reserves and a sound and elastic currency, and that the checks on expansion provided by Congress would become ineffectual if credit on checks deposited were granted immediately.³

5. DEDUCTIONS FROM DEMAND DEPOSITS

Member banks have not been entirely satisfied with the deductions allowed in computing the net deposits against which reserves are to be held. In 1917, Elliott, Counsel of the Board, pointed out that no deductions were allowed from time and demand deposits. In determining the amount due from other banks, it has been customary to consider the items placed in the mail and charged to the account of correspondents as part of the balance due from correspondents. To place items in the same city at parity with items

of *Atlanta* (Brief and Argument of Appellant), pp. 84-85. Cf. "Shall the Integrity of the Federal Reserve System Be Preserved?" *Acc. Bull.*, September, 1923, pp. 3-4.

¹ *Mim.L.S.*, 1924 (21), X-4149, pp. 651, 659.

² U. S. District Court, District of Northern Georgia. *Pascagoula National Bank vs. Federal Reserve Bank of Atlanta, et al.*, p. 64. (Answer of Federal Reserve Bank of Atlanta and Supporting Affidavits, pp. 38-39.)

³ U. S. Supreme Court, 1925. *Pascagoula National Bank vs. Federal Reserve Bank of Atlanta*, pp. 96-105.

payable elsewhere, member banks are likewise permitted to consider checks on other banks in the same city and exchange from clearing houses as balances due from other banks. Balances due from banks are deducted from balances due to them, and the remainder is included in net deposits.¹ This interpretation of Section 19 has aroused much criticism. Banks transacting relatively little business with other banks are at a disadvantage, for since their balances due to banks are relatively small they are unable to deduct, to the same extent as can city banks with important correspondent relations, the balances due from others from the balances due to them.² Early in 1919 the Board made a concession in allowing the deduction of cashier checks from *gross* deposits, and on several occasions the authorities have expressed approval of the proposal to allow such deductions.³ Banks interested in foreign banking have also been discontented, for they were not allowed to deduct foreign balances from balances due to banks, although some concessions have been made.⁴ The Board has made several other concessions in the definition of items deductible from balances due to other banks,

¹ *Mim.L.S.*, 1917, X-305, July 19, 1917; cf. *ibid.*, 1925 (23), X-4425, pp. 161-162.

² Cf. *ibid.*, 1919, X-1370, January 29, 1919; Hearings: *Inquiry on Membership* (68th Cong.), 1923, p. 177.

³ *Mim.L.S.*, 1919, X-1370, January 29, 1919. In 1925, Smead, an official of the Federal Reserve Board suggested a plan which provided that member banks might legally deduct "Due from Bankers" from demand deposits. He suggested an agreement by depositors that they would not withdraw deposits arising from the deposit of checks on other banks until they were collected. *Ibid.*, 1925 (23), X-4425, pp. 163-165. A committee of Federal Reserve Agents recommended that deductions be permitted from demand deposits. *Ibid.*, 1925 (22), p. 343. In 1924 and 1928 the Board announced its intention to recommend to Congress that amounts "Due from Banks" be deductible from gross deposits. *Ibid.*, 1924 (20), X-3988, p. 146; *ibid.*, 1928 (28), X-5090, p. 320; cf. Boston Reserve Bank, *Proceedings*, 1923, p. 16.

⁴ Kent contended in 1924 that reserve requirements were not necessary for metropolitan banks, for they are managed expertly. He considered unfortunate the 1919 ruling that foreign balances were not deductible from balances due to banks; banks therefore give less foreign service. He added that foreign balances are available except in emergencies and American banks compete with foreign banks that are not hampered by reserve requirements. McGarragh, agent of the New York Bank, replied that the exchange balances did not arise primarily from the collection of customers' bills payable abroad; he held that the foreign business was mainly the profitable employment of loanable funds and includes buying and selling of cable transfers, discounts of long and short bills, and maintenance of deposits abroad. *Mim.L.S.*, 1928 (29), X-6125a, X-6125b, pp. 148-149. The Board refused to rescind its 1919 ruling. *Ibid.*, X-6191a, p. 369. In 1925 the Board allowed the deduction of balances payable in dollars held with a foreign branch of a domestic bank and in 1928 allowed the deduction of balances due from American branches of foreign banks if payable in dollars. *Mim.L.S.*, 1928 (29), X-5073, p. 293.

but in several instances has modified its position only on the protest of reserve banks.¹

6. SAVING DEPOSITS

The phenomenal increase in saving and time deposits is in part to be explained by the small reserves required against such deposits; member banks have used every means at their disposal to increase saving and time deposits. In the war period there was a tendency to be lax in the definition of saving deposits in order to stimulate the enrollment of new members.² Also, the phenomenal growth in time deposits is in part to be ascribed to the increased participation of commercial banks in the business ordinarily carried on by savings banks.³ But the Board has also been seriously concerned with the tendency to transfer demand deposits to time deposits in order to evade the reserve requirements.⁴ The rate of growth of time deposits in the cities has been especially large,⁵ and the increase has been marked in periods of ease. The possibility of abuse was expressed in official circles as early as 1915, and it was suggested that a limit be put on individual accounts possible of inclusion as time deposits.⁶ The Board was particularly concerned over the situation

¹ *February 11, 1920* — Banks had been allowed to deduct items with Federal reserve banks in process of collection. The Board now decided that amounts due to Federal reserve banks — deferred credits — should be added to balances due to banks. *Ibid.*, 1920 (12), x-1829, p. 176. Reserve authorities now supported a policy of restraint.

October 27, 1926 — Banks are allowed to deduct credits actually entered by correspondents even if not collected. *Ibid.*, 1926 (26), x-4705, p. 262.

May 31, 1927 — Governors protest at the ruling of May 24, 1927 which reduces "Due to Banks" very considerably although equivalent sums may not have been credited to depositors' accounts. *Mim.L.S.*, 1927 (26), x-4871, p. 355; also see *ibid.*, 1927 (27), x-4971, pp. 210-211.

² *Ibid.*, 1917, x-609, December 26, 1917; *C.F.Chr.*, 1915 (100), p. 362.

³ *Ibid.*, 1926 (123), pp. 280-281. In 1912 national banks held 18 per cent of the time deposits and 51 per cent of the total demand deposits; in 1925 they held 25 and 56 per cent respectively. In 1925 time deposits of national banks had increased by 299 per cent over 1912 and 138 per cent for state banks; demand deposits increased by 82 per cent for national banks and 153 for state banks.

⁴ *Mim.L.S.*, 1927 (26), x-4888, p. 463; cf. Boston Reserve Bank, *Proceedings*, 1927, pp. 9-10. It has not been demonstrated that a member bank gains by a transfer from demand to time deposits. Professor Young suggested that the explanation of the relatively larger growth in time deposits was an increase in uninvested savings, the increased participation of national banks in this business, and a more complete segregation of demand and time deposits. A. A. Young, *op. cit.*, p. 60. Also cf. L. W. Towle, *Time Deposits*, passim (doctorate thesis deposited in Harvard College Library).

⁵ *C.F.Chr.*, 1928 (126), p. 4025; A. A. Young, *op. cit.*, p. 60; B. M. Anderson, Jr., "Bank Expansion versus Savings," *Chase Economic Bulletin*, June, 1928, p. 14.

⁶ *F.R.A.*, 1918, p. 766.

in California.¹ Apparently the Federal Reserve Agent had not strictly enforced the regulations of the Board and allowed the inclusion with time deposits of those which, permissibly withdrawn without presenting a pass book, were subject to withdrawal by checks, with interest payable only on sums in excess of 500 dollars.² In spite of counsel's advice that these deposits be classified as demand deposits, the reserve authorities deemed drastic action inexpedient.³ The problem has not been solved yet: C. E. Mitchell would require the same reserve requirement on all deposits; Harrison deems a 3 per cent reserve against time deposits too low. Segregation of assets against time deposits is not deemed expedient, and it is also recognized that no member bank would dare invoke the 30-day notice.⁴

7. CONCLUSION AND THE REPORT OF THE COMMITTEE ON MEMBER BANK RESERVES

By the Federal Reserve Act and successive amendments, legal reserves of member banks have been reduced. But the reduction of reserves has been larger than anticipated, for members have reduced their tills to a much greater extent, the growth of deposits requiring a reserve of 3 per cent has been at an unprecedented rate, and bankers' balances have been maintained at a very high level. The reserve authorities have been under pressure to modify requirements so that various classes of banks should not be discriminated against. When attempts have been made to introduce more equitable provisions, reserve requirements have not been made more rigid for banks in a relatively favored position, but, rather, concessions have been granted to banks in quest of relief. Thus currency depots were established in many outlying cities in order to make it possible for banks in these cities to reduce their tills, and country banks were given immediate credit for currency notes shipped for redemption. The many deductions made from balances due to banks have been granted through administrative rulings, and ap-

¹ *Proceedings*, November, 1924, pp. 80-117.

² *Mim.L.S.*, 1923 (18), pp. 59-91. Memorandum of Counsel to Board on Reserves against so-called Special Deposits.

³ *Ibid.*, 1927 (27), X-4915, pp. 82-83; *ibid.*, 1930 (32), X-6490, p. 101. Cf. Dallas Reserve Bank, *Proceedings*, 1928, p. 28.

⁴ Hearings: *Operation of Banking Systems* (71: 3), 1931, pp. 26, 35-37, 321-322.

parently the Comptroller of the Currency was largely responsible for the introduction of the practice.

The fact that member banks have been allowed to average their deposits and cash over a period of a week until quite recently, and that even now reserves are calculated bi-weekly, has been a stimulus to expansion. Member banks thus are confronted less frequently with the unpleasant task of borrowing from reserve banks, and then escape the influence exercised by reserve banks when they are in a position to refuse accommodation.

Thus reserve requirements are unduly low because they have been reduced by Congress and by administrative acts, and because the possibility of economizing and evading reserve requirements was not adequately recognized by Congress. Reserve banks have frequently been hampered in their efforts to control by successive relaxations of reserve requirements. The reduction in requirements made possible by law, the interpretations of the Board and reserve banks, as well as economies and evasion, taken together with the large imports of gold and the volume of rediscounts have made possible an expansion of bank credit of almost incredible dimensions. Pressure for the reduction of reserves has been exerted from all sides, and if the System is to be saved from excessive expansion in the future on this score, Congress and the Board ought to guard more zealously accepted standards of reserves. But other considerations are of much greater importance. The Federal Reserve Board requested permission at one time to increase reserve requirements when inflation threatened; but the suggestion was not accepted with favor.¹ It is rather interesting that a similar proposal has recently been made by the Macmillan (British) Committee.

Since this chapter was written, the Committee on Bank Reserves appointed by the reserve authorities has published its excellent report, which throws light on many perplexing problems.² The adoption of the recommendations made in this report would bring a vast improvement over present conditions.

The committee is concerned more with obtaining an equitable distribution of the reserves required for different classes of member banks than with a change in the amount of reserve required for the System, and the committee suggests reserve requirements that would

¹ *F.R.B.*, 1917, pp. 107-108.

² *Member Bank Reserves*. Report of the Committee on Bank Reserves of the Federal Reserve System, 1931 (26 pp.). (Hereafter abbreviated: *Member Bank Reserves*.)

promote sound credit conditions. The committee recommends that reserves be determined not only by the volume of deposits but also by the activity of these deposits.¹ Speculative tendencies, since they are generally accompanied by increased turnover of deposits, would be checked to some extent by increased reserve requirements. The committee points out that had its proposals been in effect in 1928-29 an increase in required reserves would have checked speculation to some extent.² The determination of reserves in part by the turnover of deposits also solves the problem of the classification of reserve requirements on the basis of the size of the city and the problem of evasion of reserve requirements through transfers to time deposits.³ Thus inactive accounts, wherever located, and however classified (demand or time) will require small reserves; and active accounts, even if classified as time deposits and held in a city now subject to the 7 per cent requirement on demand deposits, will require large reserves.

On grounds of equity it is provided that a large proportion of vault cash is to be included as reserves. In this manner it is hoped to remedy the unfavorable requirements imposed on country banks as a result of the 1917 amendment which excluded till money from reserves.⁴ Also on grounds of equity and to assure sound credit conditions, it is provided that deductions of amounts due from banks

¹ *Ibid.*, pp. 5-6.

"The two main functions of legal requirements for member bank reserves under our present banking structure are, first, to operate in the direction of sound credit conditions by exerting an influence on changes in the volume of bank credit, and, secondly, to provide the Federal reserve banks with sufficient resources to enable them to pursue an effective banking and credit policy. Since the volume of member bank credit needed to meet the legitimate needs of trade and industry depends on the rate at which credit is being used as well as on its aggregate amount, it is essential for the exercise of a sound control that legal requirements differentiate in operation between highly active deposits and deposits of a less active character. Requirements for reserves should also be equitable in their incidence, simple in administration, and as far as possible, not susceptible of abuse." *Ibid.*, p. 5.

² *Ibid.*, pp. 18-20.

³ It is pointed out that the activity of the time deposit is not the only consideration, for the business unit operates with a smaller proportion of demand deposits, which circulate much more rapidly. *Ibid.*, pp. 14-15. But the committee makes no attempt to *prove* that it is profitable for banks to encourage the transfer of deposits from demand to time.

⁴ *Ibid.*, pp. 7-13. The committee points out that banks close to reserve banks held 1.38 per cent of their net demand deposits in vault cash and the remainder held 4.64 per cent. The amendment of 1917 has permitted a reduction in aggregate reserves amounting to 700 millions. Cf. Hearings: *Inquiry on Membership* (68th Cong.), 1923, pp. 277-278.

may be made from gross deposits instead of from balances due to banks. Banks holding small balances of other banks are thus enabled to take advantage of this privilege, as banks in financial centers holding large bankers' balances may under current practice.¹

As we look back over the last fifteen years, we are impressed by the fact that each dollar of reserve has gone further than anticipated and that non-reserve cash has been economized beyond what might reasonably have been expected. Moreover, this tendency toward legal and extra-legal evasion of reserve requirements has contributed to a measure of inflation that has been unfortunate, to say the least. Yet even looking forward in 1914 or 1917 legislators and reserve authorities had every reason to draft provisions (it was not done consciously of course) that would be susceptible of abuse and would insure some elasticity (or evasions, if you like); for who could have anticipated the inflow of gold of later years or the very large contributions of reserve banks? As we look forward to-day, the spectre of deflation rises ominously and the scarcity of gold is preached on every side. May we not ask whether there is not a danger that, over-emphasizing the significance of experience of the last fifteen years, Congress may draft reserve regulations in such a manner as to make them fool-proof against all manner of evasion and elasticity, thus throttling, or contributing to the throttling of, every effort to escape from the terrors of deflation? Perhaps the committee, laboring under the atmosphere of a horror of inflation, is unduly anxious concerning the possibility of a recurrence of such an episode.

It does not follow that if the reserve requirements of 1913 were in effect to-day reserves of member banks and therefore deposits would be correspondingly reduced.² The country takes for granted 1,000 or perhaps 2,000 millions of reserve credit outstanding as the normal situation; it might have been educated to accept 1,500-2,500 mil-

¹ *Member Bank Reserves*, pp. 17-18. "The principle which the committee has followed in making these recommendations is that, in so far as it is administratively practicable, the aggregate body of reserves maintained by member banks should reflect changes in the volume and use of member bank credit by the public, since it is the public's use of credit which has a direct relation to the volume of the country's business. Aggregate reserves should not, as a matter of principle, be affected by purely interbank transactions which do not directly reflect the public use of credit. . . ." *Ibid.*, p. 17.

² The committee observes that if the requirements for 1914 for national banks were in vogue in 1931, member banks would have required 4.4 billions of reserves instead of the 2.9 millions actually held. Thus 1.5 billions of additional reserve bank credit would have been necessary to support the current volume of deposits. *Ibid.*, p. 9.

lions as normal. Little control is exercised through the possibility of withdrawing what we may term the normal amount of reserve credit; but when the amount, actual or potential, is in excess of the normal — and the distribution between rediscounts and other kinds of reserve credit is a factor — reserve banks may exercise a considerable amount of control by the exercise of the threat of withdrawal or by actually withdrawing. Also, pressure for more credit in recent years under reserve requirements of 1913 may easily have brought modifications in the law or interpretation of the law, or higher rates and more gold. Another possibility is the abandonment of the gold standard. I am very doubtful (given the necessary business conditions and sentiment) whether inflationary or expansionist tendencies can be checked to any important degree by the introduction of reserve regulations, protected to the maximum against abuse.

The committee accepts, as one measure of the reserves to be required, the activity of deposits, and rules out a consideration of liquidity on the grounds that the reserve banks can provide the necessary liquidity.¹ Keynes has already pointed out that banks ought to hold adequate reserves in order to assure the central bank, which enables them to carry on their business profitably and safely, adequate resources. The committee makes a similar point.

Country banks are treated unfairly, it is held, by virtue of the fact that they hold large amounts of cash not included as reserves. I am not sure but that the present burden on country banks is justifiable. Are we not too dependent on the reserve banks for the assurance of liquidity? Do not country banks rely on reserve banks to a disproportionate degree? And are not country banks not only illiquid but also burdened with *unsound* assets to a disproportionate degree? Therefore it may be desirable that the country banks hold larger cash reserves than was intended in 1917, these reserves being still smaller than those required for banks in the larger cities. Any concessions may result merely in larger advances from reserve banks and a less sound condition.

Keynes' point, that member banks ought to hold large reserves in order to provide the central bank with adequate reserves, needs elaboration. This much may be said parenthetically. It may conceivably be held that city banks ought to contribute less rather than more reserves, for their deposits are more active and therefore less

¹ *Ibid.*, p. 5.

profitable. But the vital question is, do member banks contribute to the reserves of the central bank by holding larger reserves? Perhaps Keynes had in mind the old-fashioned gold standard under which banks hold gold in their tills. If member banks under the present system increase their reserves, they increase either their balance at the central bank or their tills of notes issued by it. The ratio of reserves against liabilities of the central bank is thus reduced, for its liabilities are increased. True enough, if the reserves of member banks are to be used, less borrowing and therefore smaller additions to the central bank's liabilities may be necessary later. The reserve position of the central bank may thus be affected adversely. Perhaps Keynes had something else in mind. Thus, an accumulation of larger reserves by member banks, unless provided by central bank credit that can easily be spared, may bring higher rates and gold from outside; and it may be held that the gold may be retained because no additional creations of credit follow and the additional gold is in fact hoarded. Yet it is unlikely that Keynes would encourage a competitive struggle for gold.

CHAPTER XXIII

NOTE POLICY

I. INTRODUCTION

IN THE Federal Reserve Act, the issue of notes is zealously guarded in the type of collateral acceptable, in the guarantee of the government, in the large discretionary authority bestowed on the Federal Reserve Board, and by many other provisions. Authorities in the years preceding 1914, with American experience before them, vacillated between protection against abuse and assurance against rigidity. Monetary expansion can be checked by the refusal to issue notes, and the possibility of the exercise of this check was an important factor in British monetary policy before the War. A similar weapon of control is at the disposal of reserve authorities, but it has never been used, with the possible exception that when surplus reserves were finally exhausted in 1920, the Board threatened to use its discretionary authority to impose a tax on note issue. The Board may refuse to issue notes, may impose a tax on issues, or may set other conditions.

2. DEVELOPMENT OF A POLICY, 1914-20

In the opinion of the committee of reserve officials, a tax on note issue would be inexpedient, for the concentration of gold supplies would be made more difficult.¹ But Regulation O, Series of 1915, provided that "the latter (Federal Reserve Agent) will issue notes to said bank within such limits as the Federal Reserve Board may have fixed."² In an informal ruling of the Board, announced in May, 1916, it was held that a tax on notes was not required for the purpose of increasing the government's share of the profits of reserve banks, although a tax might be introduced to control issues; but the current issue was not in excess of business needs and a normal tax was not intended by Congress, nor is it required.³ The last statement indicates that the authorities were already drifting toward

¹ *F.R.A.*, 1914, p. 172.

² *F.R.B.*, 1915, p. 215.

³ *Ibid.*, 1916, p. 273.

the position that they were to occupy in the inflation period and, on the whole, adhere to ever since; and little thereafter was heard of the possibility of a tax until 1920.

The 1917 the Council of National Defense made the following statement, with the approval of the Board:

The Federal reserve banks are authorized to issue Federal reserve notes on the security of notes, drafts and bills of exchange of the kind described, and this fact assures a legitimate expansion of currency in proportion to the needs of the commercial community, available for the use of member banks.¹

In the *Annual Report* of 1917, the following statement was made:

As a result of these changes the Federal reserve note will more speedily attain the position originally intended for it; from being an occasional emergency currency used to supplement deficiencies in the supply of other existing forms of currency, it is becoming the most important constituent of our circulating medium responding promptly and naturally to currency requirements from whatever source proceeding, thus promising to give our whole currency a kind and degree of elasticity it has never before possessed. . . . In times when trade is active and the country needs increased currency the Federal reserve note will be issued in increasing degree against commercial paper as collateral. In times of slackening demand for currency, commercial paper will be withdrawn and gold deposited in its place to provide for the redemption of notes which have been issued to the member banks.²

In October, 1918, the Board compared the amount of money in circulation on February 1, 1917, with the amount in circulation on September 11, 1918: the increase had been but 736 millions (from 3,916 to 4,652 millions), and with adequate allowance for the increase of population and trade and the export of American currency, it will be agreed that inflation had not been caused by excessive issues.³ At Congressional Hearings, critics were assured that issues had not been excessive.⁴ By December 1, 1918, the total money outside of the Treasury and reserve banks had increased to 5,130 millions, but on August 1, 1919, the total was but 4,797 millions.⁵ The seasonal change should be considered; but in the light of con-

¹ *C.F.Chr.*, 1917 (104), p. 2293.

² *F.R.A.*, 1917, pp. 11-12.

³ *F.R.B.*, 1918, pp. 927-928. This comparison is not as significant as it seems, for the banks held more than ample supplies of notes early in 1917 and the banks apparently began to economize on tills in 1917. Cf. A. A. Young, *op. cit.*, p. 64.

⁴ U. S. Senate Finance Committee, Hearings: *Establishment of a War Finance Corporation* (65: 2), 1918, pp. 20, 64-66.

⁵ *F.R.B.*, 1919, pp. 700-701.

tinued inflation, the reduction might be explained by the tendency to hoard during the War.

The Board now took a firm stand.¹ It was impossible to keep in circulation an excessive amount of Federal reserve notes, for the issue was carefully safeguarded and there were adequate provisions for redemption. Notes could be issued only in exchange for gold or against a deposit of negotiable paper growing out of a legitimate commercial transaction.

Thus there cannot at any time be more Federal reserve notes in circulation than the needs of the country at the present level of prices require and as the need abates the volume of notes outstanding will be correspondingly reduced through redemption.²

In several statements issued in August and later months, including the reply to Senate Resolution No. 142, the Board clung substantially to this position.³ Authorities were more on the defensive as inflation continued, and in October, in addition to the usual argument that increased issues were the result of higher prices, it was held that a refusal to issue notes would result in the stagnation of trade and a failure to adjust retail to wholesale prices.⁴ The Board was supported by the Federal Reserve Agents, who, at a meeting in October, 1919, agreed that movements of currency were the result of movements of prices.⁵ In a public statement in the latter part of 1920, the Board still adhered to its position, although the large tills held by banks were also given attention.⁶

At the October, 1920, Conference, the question was discussed fully, particularly in a brilliant memorandum by Jay, agent of the New York Bank.⁷ Federal reserve banks did not determine, Jay

¹ In 1918 the Federal Advisory Council had approved the Board's position. *F.R.A.*, 1918, pp. 865-866. The Board was prepared to request the repeal of the provision for the payment of a tax which had been introduced as a check on excessive issues. *Mim.L.S.*, 1918, x-1113, August 7, 1918; cf. *Annalist*, 1918 (12), p. 270.

² *Mim.L.S.*, 1919 (11), x-1648, pp. 575-583; *F.R.B.*, 1919, pp. 699-702. These views were expressed in a reply to Senate Resolution No. 142 made in August, 1919.

³ *F.R.B.*, 1919, p. 814. "While it is technically a true statement to say that the Federal reserve note when issued is issued by the Federal reserve bank, the greater truth in understanding our present monetary machinery is missed unless it is perceived that the occasion of the issue of a Federal reserve note is determined not by the bank for itself but for the bank by the community."

⁴ *Ibid.*, p. 913.

⁵ *Mim.L.S.*, 1919 (11), x-1719a, p. 864.

⁶ *F.R.B.*, 1920, p. 664. Apparently the banks increased their supplies of notes rapidly in 1920. A. A. Young, *op. cit.*, p. 64.

⁷ *Proceedings*, October, 1920, II, 398-424, 443-447.

declared, the magnitude of issues; the credit needs of customers were the decisive factor. Of 3,300 millions of reserve notes outstanding, 300 were in circulation in other countries and 525 millions held by banks. The expansion of notes was at the most as rapid as that of deposits; the correlation was between rediscounts and notes, not between reserve deposits and notes. An increase of deposits required an additional reserve of 10 per cent (roughly), but a withdrawal of notes would result in an equivalent reduction of cash. A tax on notes would not hamper the reserve banks; it would merely give the Treasury then what it would otherwise receive later. The elimination of notes covered by Government securities would not reduce the volumes of notes outstanding; the 1.2 billions of Government securities outstanding would be replaced by other eligible paper. The proper method of attack was through credit control. The recent limitation on notes introduced in Great Britain was not of much significance for us. England thus related note issues to reserves, a relationship already established in the United States.¹ (Jay here missed the essential point that the large supplies of gold available in the United States made the limits imposed by reserves of little practical significance until the latter part of 1919.)

Governor Morss of the Boston Bank ably seconded Jay. He proposed that the limitation on credit be effected through the control of deposits rather than through notes; control of credit would suffice for the regulation of the issue of notes within the limits desirable to control them. Three quarters of the credit obtained from reserve banks were consumed in withdrawing notes; but they were issued under varying circumstances, making control by credit less difficult. Moreover, gold was concentrated in the reserve banks, and they were therefore peculiarly responsible for the maintenance of adequate supplies of money in circulation.²

Dr. Miller now presented the attitude of those who would restrict

¹ Jay also presented the argument of those who proposed a limitation on issues: We are accustomed to reserves rigidly determined by law, and American tradition demands the full utilization of reserves. Notes constitute a small but necessary element in the total volume of credit outstanding. If the reserve requirement against notes were raised, an effective discount policy would be introduced at an earlier stage of inflation; the public will not countenance an increase in the Bank rate when reserves are high, and reserve authorities are not courageous enough to raise rates under such conditions. Jay's answer to this argument was the expression of a hope that the American public would ultimately be instructed in the intricacies of discount policy. *Proceedings*, October, 1920, II, 445-447.

² *Ibid.*, pp. 245-250.

credit by control of note issues. He attacked the principle of free issue: restrictions of issue, he said, would go a long way toward preventing unnecessary expansion; the provisions of the law had been forgotten, for applications for notes might be rejected. The Federal reserve note was not convertible.¹

3. VACILLATION, 1920-24

In the 1919 *Annual Report* issued early in 1920, the Board seemed less certain of its position, and in private messages expressed a disposition to restrict issues of notes.

The banks have been able to maintain their reserves while carrying this heavy loan account only because a correspondingly large volume of Federal reserve notes has been needed to meet the demands of commerce and business.²

This argument has been used frequently in recent years, particularly by Hamlin.³ The implication is that member banks required a large volume of accommodation and reserve banks therefore required large reserves of gold; if adequate supplies of gold were to be conserved for the creation of deposits by reserve banks, issues of notes rather than gold were necessary.

In three private messages to the reserve banks in 1920, the Board revealed its concern over the expansion of notes and expressed a desire to check it.⁴ Pressure on the part of member banks to obtain an increased share of the profits of reserve banks was the occasion for the threat of a tax on issues.⁵ The Board was not certain that the imposition of a tax on issues was optional, but in the past reserve banks had been given the benefit of the doubt; a tax would reduce earnings and quiet grumblers; reductions of the discount rate and the payment of interest on deposits were not justifiable methods of reducing profits; moreover, the Treasury was entitled to the profit on the issue of notes. In June the Board called attention to the large issues and the rate of increase during the preceding twelve months; it was seriously considering the possibility of imposing an interest charge on the uncovered issue. Expressing doubt

¹ *Ibid.*, pp. 264, 267-274.

² *F.R.A.*, 1919, p. 36.

³ *Mim.L.S.*, 1920 (12), x-1914a, pp. 382-383.

⁴ The first letter was an inquiry concerning the unusual demand for currency. Reserve banks in their replies suggested large payrolls, increased activity, inclement weather, and hoarding as possible explanations. *Ibid.*, x-1839, pp. 190-202.

⁵ *Ibid.*, x-1914a, pp. 382-386.

whether such measures would have the effect of preventing expansion of the issue when the need was genuine, the Board nevertheless was "of the opinion that it would be well to test the efficacy of some of the restrictive provisions of the Act." Although the Board reserved the right to take earlier action, it now proposed to establish the charge as of January 1, 1921.¹ The reaction of the reserve banks was apparently unfavorable, for the Board did not carry out its threat.²

The question came under discussion once more in 1923-24.³ Miller had expressed disapproval of the Board's policy or lack of policy in 1921, and he now repeated his criticisms. Member banks, he argued, rediscounted primarily to obtain the notes which the Board was charged with the responsibility of limiting. Hamlin was critical of Miller's position. The provision of an elastic currency was not the exclusive object of the Federal Reserve Act, in his opinion.⁴ He objected to Miller's position on the ground that the real problem was whether reserve banks would meet the demand by issuing notes or at the expense of their reserves; the public could always obtain cash so long as the member and reserve banks were solvent. In other words, the question was not should notes be issued or refused, but should notes or gold be paid. In reply to Miller, he contended that the Board had had a definite policy, discussed for years and made public in the reply to the Senate in 1919. That reply was unanimous; but in 1921, Miller modified his position in contending that the expansion of currency was the consequence of the expansion of credit in *normal times only*.

The accepted position to-day is the position taken by the Board almost without exception since 1916. Only in 1914-16, 1920, and perhaps in 1924, was the possibility of restriction given serious con-

¹ *Mim.L.S.*, 1920 (12), x-1950, pp. 505-506.

² In September, 1920, the Board requested the opinion of the Advisory Council concerning the imposition of a restriction on issues. The Council advised against the introduction of a limitation. The Board suggested various methods of enforcing a limitation: a charge on the uncovered issue; a normal limit for each member bank and a charge on the excess; a transportation charge; restrictions on paper acceptable as collateral; limitation of total issues. *F.R.A.*, 1920, pp. 608-609.

³ *Mim.L.S.*, 1923 (18), x-3670, pp. 225-226 (Program for Governors' Conference). Cf. E. A. Goldenweiser, *The Federal Reserve System in Operation*, pp. 66-67; A. C. Miller, "Federal Reserve Policy," *American Economic Review*, 1921, p. 183; *Mim.L.S.*, 1924 (20), x-3999, pp. 169-172 (Address at New York University).

⁴ Cf. *Ibid.*, x-3966, pp. 90-100 for a summary of Miller's argument and Hamlin's reply.

sideration. After referring to the close correlation between money in circulation and the combined index of the pay-roll and retail trade, the Board in 1926 wrote as follows:

In both cases the initiative comes from the public and the function of the reserve banks is merely to facilitate the prompt adjustment between the public's demand for currency and its volume in circulation.¹

Statements by Platt² and Governor Young³ in 1927 and 1930 are also indicative of the acceptance of what has come to be the orthodox position in American banking theory.

4. THE PROBLEM OF COLLATERAL⁴

In 1926 the Federal Reserve Board pointed out that the theory of the Act was that the scarcity of eligible paper would limit the volume of notes; but anticipations have not been fulfilled, for eligible paper has always been much in excess of the volume required to obtain reserve-bank accommodation.⁵ Recently a writer⁶ has contended that the only logical outcome of the problem of collateral is the issue of notes against the general assets of the banks. Reserve banks, this authority says, do not relate issues to specific transactions; currency is obtained by building up a reserve balance, and the Federal reserve banks set aside any eligible paper available; if eligible paper is not available in adequate quantities, gold is substituted. In fact, eligible paper in the last few years has not been available in quantities adequate to cover 60 per cent of the notes outstanding, with the result that reserve banks have been forced to put aside gold amounting to 40 per cent or more of the notes in circulation. Perhaps, on the whole, the deficiency of paper eligible for collateral has been advantageous, for authorities could point to its scarcity as a warning against needless expansion in a period in which

¹ *F.R.B.*, 1926, p. 468.

² *C.F.Chr.*, 1927 (125), p. 175.

³ *Min.L.S.*, 1930 (32), x-6618, p. 595. Governor Young, in discussing the demand for gold and currency, said that reserve banks "must furnish the credit necessary to meet these demands when they arise, regardless of whether reserve bank policy is directed toward easier or firmer conditions in the money market."

Cf. E. E. Agger, "The Proposal to Demobilize the Federal Reserve System," *American Bankers' Association Journal*, June, 1925, pp. 727-728.

⁴ Also consult Chart XI and pp. 768-770.

⁵ *F.R.B.*, 1926, p. 477.

⁶ C. T. Murchison, "Do Reserve Bank Notes Need Specific Collateral?" *American Bankers' Association Journal*, June, 1930, pp. 1162, 1188-1190.

gold supplies were excessive. On the other hand, past experience points to the likelihood of the liberalization of eligibility rules if surplus (free) gold is reduced to a low level.¹ (The Glass-Steagall Act, passed since the above was written, is consistent with past practice.)

When collateral has been scarce, the tendency has been to allow the use of less desirable types of paper; this was peculiarly true in the war period. Moreover, administrative rulings made possible a more economic use of available supplies of collateral.² When the fear of inflation was strong, reserve officials were anxious to prevent the acceptance of relatively less desirable types of paper for collateral.³ In the latter part of 1926, the Board ruled that a Federal Reserve Agent might reject paper as collateral although, as a member of the bank's executive committee, he might have participated in the act of declaring it eligible; he retained full discretion as the representative of the Board.⁴ It has been stated that when supplies of collateral have been inadequate, reserve banks have transferred investments among themselves to increase the available supplies of collateral.⁵

¹ U. S. Senate Banking and Currency Committee, Hearings: *Amendments to the Federal Reserve Act* (64:1), 1916, p. 5; Public-No. 270-64th Congress [H. R. 13391], p. 4.

² The Board announced in a letter written April 12, 1917 that the practice of substituting collateral ten days before the maturity of the paper deposited as collateral in order to assure collection in time would no longer be necessary and that the substitution of new collateral would be allowed on the day of maturity; and the Federal reserve agent would nevertheless turn the paper over to the reserve bank in time for collection. *F.R.B.*, 1917, p. 351.

In 1917-18, the tendency was to simplify the regulations concerning the retention of collateral. Early in 1918 the Board proposed that all eligible paper be pledged with the agent on the day of discount so that it would be immediately available as collateral. *Mim.L.S.*, 1918, x-636, January 8, 1918. The agent now generally holds all available collateral and hence the collateral may frequently be much in excess of the requirements. E. A. Goldenweiser, *op. cit.*, p. 73. In 1931, the available collateral was scarce and, therefore, although almost all of it was pledged (including most of the gold not required against deposits) against notes, there was little excess of paper eligible as collateral.

³ *Mim.L.S.*, 1923 (18), x-3607b, p. 53; U. S. Senate Banking and Currency Committee, Hearings: *Rural Credits* (67:4), 1923, p. 371.

⁴ *Mim.L.S.*, 1926 (25), x-4672, pp. 129-130.

⁵ Hearings: *Brokers' Loans* (70:1), 1928, p. 84. Cf. Dallas Reserve Bank, *Proceedings*, 1927, pp. 26-27. The officials of the Dallas Bank complained that they are unable to obtain cotton export paper which the Bank requires for collateral in the fall when the demand for currency is large. An official denial of the practice of transferring bills from one reserve bank to another to serve as collateral has recently been made by representatives of reserve banks. Hearings: *Operation of Banking Systems* (71:3), 1931, p. 904.

Governor Harding rightly observed in 1916 that a reserve bank may be called upon to issue notes although few requests are made for rediscounts; the framers of the Act had not envisaged such possibilities.¹ In allowing the substitution of gold for other collateral and the direct issue of notes against gold, Congress in 1917 faced this problem, arousing critics who have not been silenced since.² The Federal reserve authorities had accomplished the same task by introducing the process known as "reversing the pump"; that is, issuing notes against gold and collateral, then releasing the collateral, substituting gold, and setting aside the collateral for additional issues.³ The 1917 amendments, however, now made available as reserves the gold thus deposited for the purpose of reducing the liability against notes outstanding, and the reserve position was strengthened.

The Board contends that the amendments of 1917 did not increase the lending power of the reserve banks.⁴ That contention holds on the assumption that when, under the system in vogue before 1917, an occasion arose to use the gold held by the agent and not available as reserve, adequate supplies of other collateral would be available. Therefore the difference, according to the Board, is merely that un-

¹ W. P. G. Harding, *op. cit.*, p. 76. Goldenweiser, however, observes that the correlation between earning assets of reserve banks and reserve notes in circulation has been high. E. A. Goldenweiser, *op. cit.*, pp. 66-67. But the volume of earning assets is also determined to an important extent by movements in gold, Treasury currency, and the requirements for reserve.

² Cf. E. E. Agger, *op. cit.*, pp. 725-728; *F.R.B.*, 1926, pp. 476-477; *Mim.L.S.*, 1925 (22), pp. 338-339. Glass, chairman of the House Committee on Banking and Currency, said that the House agreed to the issue of notes against gold because it was an emergency measure. U. S. District Court, District of Northern Georgia. *Pascagoula National Bank vs. Federal Reserve Bank of Atlanta, et al.*, p. 36. Governor Harding later revealed a hostility to the amendment. *Mim.L.S.*, 1927 (26), x-4832, pp. 256-257.

³ The *Commercial and Financial Chronicle* has been one of the most consistent critics of the policy of issuing notes against gold. In 1915 and 1916 it was contended that the issue against gold was illegal; that the purchase of gold by issuing notes was provided in Section 14 on open market operations and purchases should not be made to evade Section 16, which requires issues against gold and collateral; moreover, gold obtained by the issue of notes was not available, as is required under Section 14. Governor Strong replied to these criticisms: nothing in the Act prevents the repeated use of the identical collateral, nor is it provided that the notes outstanding should not be in excess of the collateral; nothing in Section 14 precludes the acquisition of gold by the issue of notes through the process provided in Section 16. It was not intended that notes be issued only in response to rediscounts; the Act provides an elastic rather than an emergency currency. *C.F.Chr.*, 1915 (101), pp. 70-71, 159, 398, 412-413; *ibid.*, 1916 (102), pp. 638-639, 736. Cf. P. Jay, *The Responsibility of the Federal Reserve System for the Maintenance of Gold Payments* (Address, January, 1917), p. 11.

⁴ *F.R.B.*, 1926, p. 476.

der the earlier system the gold is available for future expansion, but for the time being reserves are at a relatively low level. In taking this view, however, the Board *also* neglects the fact that collateral equal to 100 per cent of the notes outstanding *plus* gold reserves of 40 per cent of the notes in circulation was required under the system in vogue in 1916. It might with some reason have been contended by the Board in 1917 that as gold or notes were withdrawn, additional collateral would become available through purchases of acceptances or rediscounts; but such arguments were not so well taken in 1926 when assets not eligible as collateral might have been purchased in large quantities.

In 1915-16, the issue of notes against gold and the inclusion of the gold as reserves were held to be desirable because the capacity of reserve banks to offer accommodation was thereby increased;¹ but more recently, in the face of many criticisms of the amendments, officials have taken the position that inflation has not been increased. There is some justification for the recent position. True enough, as a result of the amendments, gold was released and hence it seemed that more expansion was made possible. But under the system of reserves in vogue earlier, the available supplies of gold would have increased as more collateral became available, and more collateral would generally become available as the demand for notes or reserve deposits increased. Increased issues of notes would require additional deposits, bringing increased rediscounts and, hence, additional eligible paper. Authorities neglected this phase of the question when they argued that the free gold available in 1928-29 was not so large as it seemed; for increased rediscounts for the purpose of accumulating larger balances, or withdrawing notes or gold for export, provide increased supplies of collateral. It is also to be recalled that one of the most effective arguments used by the supporters of the amendments in 1916-17 was that the concentration of gold in the vaults of the reserve banks and its availability for reserves would make possible large losses of gold without causing

¹ *C.F.Chr.*, 1915 (101), p. 413 (Governor Strong's letter to the *Chronicle*); U. S. Senate Banking and Currency Committee, Hearings: *Amendments to the Federal Reserve Act* (64:1), 1916, p. 83. Cf. R. B. Westerfield, "The Reserve Situation in the Federal Reserve System," *American Economic Review*, 1917, pp. 525-528. Westerfield sums up the arguments used by those who favored the issue of notes against gold. It was held that gold was flowing to the Treasury and private banks and hence was not generally available for reserves and if the reserve banks obtained the gold, losses in the future could be viewed with little concern.

disturbances. That argument reveals that the 1917 amendments had the support of those who feared the deflationary effects of losses of gold; and the reduction of reserve requirements, as well as the transfer of all reserves to the reserve banks provided by the amendments, increased the surplus lending power of the reserve banks.

In view of all the facts, however, we can only conclude that these amendments removed obstacles to inflation. Reserve and collateral requirements were reduced; and the legislation provided no additional tool for checking inflation. Also surplus (free) gold available *now* is more likely to bring inflation than the *prospect* of increased lending power later.

Collateral requirements were meticulously provided in the Federal Reserve Act to safeguard the issue of notes; but successive liberalizations and the large volume of eligible paper soon made it apparent that collateral requirements could not serve as a check on issues. A statement issued in 1922 by the New York Bank concerning the relation of notes and the self-liquidating paper behind them, which assured them against depreciation, seemed out-of-date then and is even more so now.¹

Even in Great Britain, where rigidity of note issue is approved, demands for notes are satisfied; but the withdrawal of additional notes is more likely to bring measures of restraint by the Banking Department (even allowing for recent improvements) than by the reserve authorities. The Banking Department feels the effect of withdrawals immediately. In the United States the authorities have failed to use this simple device for the control of credit because they have consistently adhered to the philosophy that note issues are to be financed freely by the creation of bank credit. Also, issues do not reduce the surplus reserves of the reserve banks to the extent that the reserves are reduced in England.² (The explanation is of course differences in requirements and in holdings of gold.)

5. CONSOLIDATION OF NOTE ISSUE

It was anticipated that national banks would retire their currency and sell their bonds to reserve banks: the Federal Reserve Act provided for sales to reserve banks of bonds used as collateral against National Bank notes; the reserve banks might issue their own notes against them or convert them into other securities at a higher rate

¹ *Mo. Rev. of N.Y.R.B.*, April, 1922.

² *Cf. U. S. Chamber of Commerce, op. cit.*, pp. 99-106.

of interest.¹ In 1916 appreciable purchases were made by the reserve banks, largely in the open market. Most of the bonds were converted into 3 per cent bonds and Treasury notes without the circulation privilege.² In the war period reserve banks were not disposed to purchase bonds from national banks at par, for their prices were depressed as a result of the high money rates. In the latter part of 1921, the Reserve Board once more approved purchases from national banks, the total including purchases under Section 4 not to be in excess of 25 millions for the year.³ Perhaps the embarrassment of large gold supplies was in part responsible for this decision. The Treasury had raised the question of the retirement of National Bank notes and seemed disposed to favor their ultimate retirement.⁴ On the other hand, national banks seemed not to favor the retirement of their notes, for by 1924 they held almost all the bonds eligible as collateral for National Bank notes; and although an appreciable amount had been retired since 1914, the portfolios of bonds held by national banks, against which notes might be issued, were virtually as large as in 1914.⁵

¹ Cf. E. E. Cummins, "The Federal Reserve Bank Note," *Journal of Political Economy*, 1924, pp. 528-536, for a discussion of the history of the question.

² *F.R.A.*, 1916, p. 8; *F.R.B.*, 1924, p. 947.

³ *Mim.L.S.*, 1921 (15), X-3222a, p. 1098 (Topics for Governors' Conference); *ibid.*, X-3242, p. 1227.

⁴ *Ibid.*, X-3223a, p. 1100. The Treasury inquired concerning the future of National Bank notes: should any action be taken either through new legislation or currency policy of the Federal reserve banks to encourage the retirement of national bank notes from circulation?

In the memorandum on currency payments of March 9, 1922, the Treasury discussed the different types of currency to be paid out by the Treasury and the Treasury's agents, but was silent on the payment of National Bank notes. *Ibid.*, 1922 (16), X-3353a, pp. 338-339. In the later memorandum, however, the Treasury requested that in all payments for the Treasury in denomination of five dollars or over, National Banks notes be paid out first; and although the Treasury expressed the opinion that they would be retired ultimately, Federal reserve banks were not to discriminate against them in the meanwhile. *Ibid.*, X-3393, pp. 538-539.

In its 1924 *Report*, the Treasury expressed a desire for the rapid retirement of National Bank notes and expressed the opinion that the right of issue was merely of sentimental value. That the retirement might require a refunding of the debt at a higher rate of interest would not bring losses to the Treasury for the profits of reserve banks, which are shared by the Treasury, would be increased. Secretary of the Treasury, *Annual Report*, 1924, pp. 31-38.

⁵ *F.R.B.*, 1924, p. 944.

| | Bonds Bearing Circulation Privilege | Deposited as Security for Notes |
|---------------------|--|------------------------------------|
| | (Millions of Dollars) | |
| October, 1914 | 913 | 745 |
| " 1917 | 857 | 679 |
| " 1924 | 793 | 740 |

In the early post-deflation period, the retirement of National Bank notes appeared probable; but in the last few years, their disappearance has seemed less likely. The Treasury, favoring retirement, occupied a strong strategic position, for large issues of bonds matured;¹ but the failure of the first McFadden Bill, which conferred additional advantages on national banks, made the Treasury less anxious to deprive the banks of a privilege which they treasured highly.

In 1927 the Treasury was once more favorable.² In the meanwhile, inflation developed rapidly and the question of substituting reserve notes had been raised. It has not been deemed expedient to squander several hundred millions of gold in the midst of a period of inflation and in the light of the world's attitude toward the necessity of economizing gold.³ It has been pointed out in a brilliant memorandum by Parry and Riefler, of the Statistical Organization of the Federal Reserve Board, that the substitution of Federal reserve notes for National Bank notes would involve an almost corresponding increase in reserve-bank credit outstanding.⁴ The banks would contribute the resources which the Treasury would require for the purpose of redeeming the bonds; the money market would thus be deprived of cash in transferring balances to the Treasury and would be provided with equal supplies when the bonds were

¹ *C.F.Chr.*, 1924 (119), p. 2599.

² *Ibid.*, 1926 (123), p. 939; *ibid.*, 1927 (124), p. 726.

³ *Ibid.*, 1929 (128), pp. 502-503; *Mim.L.S.*, 1930 (32), x-6490, pp. 101-102. The Treasury objected to a bill introduced by Glass providing for the retirement of National Bank notes. Goldenweiser pointed out the danger of substituting reserve notes for National Bank notes. On the basis of the increase of reserve requirements for the previous six years, he estimated that the surplus gold of the Federal Reserve System would be exhausted in twenty-five years; and if the gold certificates were retired, the surplus would be consumed in thirty-five years. If the reserve notes were substituted for bank notes over a period of twenty years and an allowance were made for the collateral necessary, the gold surplus would be exhausted in thirteen years. It is difficult to understand, however, the basis for his estimate of a loss of gold of 675 millions as a result of the substitution of reserve notes. The loss would depend (when he was writing) on the manner in which the additional reserve credit was issued: purchases of securities would not then have provided additional collateral. *Ibid.*, 1928 (29), x-6208, pp. 403-404.

⁴ *Ibid.*, pp. 405-410. "So long as the volume of currency outstanding on Treasury credit remains constant, only fluctuations in the total demand for currency by the public are reflected in corresponding fluctuations in demand for reserve bank credit, and fluctuations in the individual elements composing the currency, provided that the total in circulation remains unchanged, are reflected, not in the bill and security holdings of the reserve banks, but in their cash reserves, non-reserve cash, or their note liabilities."

redeemed. But it would be necessary to borrow from the reserve banks in order to obtain the currency to be substituted for the National Bank notes.

The eventual retirement of the greenbacks, or at least their conversion into gold certificates, was also contemplated, as is evidenced by the provision in the Act that the Treasury's share of the profits of reserve banks might be used to increase the gold cover against greenbacks. In 1919 Governor Strong urged the Treasury to retire the greenback, substitute reserve notes secured by the gold previously securing the greenbacks, and make reserve notes legal tender. The discussion of the question of the future disposition of government trustee funds was considered an excellent opportunity for retirement.¹ But nothing came of Strong's suggestion.²

Provision to issue additional National Bank and Federal Reserve Bank notes has been made in the important legislation of 1932-33; consolidation can now be but a dream of the future.

6. CONCLUSION

The framers of the Federal Reserve Act provided the Board with numerous weapons for protection against the abuse of note issue. In practice, however, little use has been made of these instruments of control. At first it seemed that the Board might take its responsibility to limit note issue seriously, but by 1916 it was clear that the Board was to assume a passive attitude. Increased issues were the result of higher prices and more active trade; the issue of notes instead of gold enabled the reserve banks to conserve their resources and satisfy unusual demands for credit; the problem of excessive issues could be solved by the introduction of an adequate credit policy — these were the arguments repeatedly used by reserve officials in the years 1917-20 in defense of their policy of inaction. One might take the position that the unlimited issue of notes was a most effective adjunct to credit policy, for reserves of member banks are depleted in withdrawing notes, in the issue of which reserve banks consume a large part of their reserves. It might be said that a policy of maintaining a reserve of 100 per cent, or thereabouts, against notes would assure an even earlier check on credit expansion.

In 1920 and to some extent in the next few years, the policy of the

¹ *Mim.L.S.*, 1919 (11), x-1610, pp. 506-509. Cf. P. Jay, *op. cit.*, pp. 15-16.

² *F.R.A.*, 1919, p. 527. The Board and Council objected to the retirement of legal tenders at this time.

Board was subjected to criticism, particularly within the inner circles. But the Board never carried out its threat of a tax on issues in 1920, and the discussion in 1923-24 was more or less academic; at any rate, official pronouncements in the years 1926-30 were reminiscent of the attitude of the Board in the war years.

Post-war history furnishes ample evidence of the effectiveness of unlimited issues of notes in restraining expansion. Even the Board's passive policy could not prevent serious depletion of reserve balances resulting from the large withdrawals of notes in 1919-20 and 1922-23.¹ Member banks, however, are not so completely under the control of reserve banks as is commonly supposed. The economies of cash in 1928 and the early part of 1929 are evidence of this point.²

The requirements for collateral have not been, as was anticipated, a restraining factor. In part the explanation is amendments to the law and the elasticity of administrative regulation; also, very large surpluses of gold explain the unimportance of occasional deficiencies of other forms of collateral. Note issue has not been closely related to the demands for reserve credit; large issues have been outstanding when rediscounts were at a relatively low level, although there has been some correlation between the two. When collateral other than gold has not been equal to the difference between notes outstanding and 40 per cent of the notes in circulation and 5 per cent of the difference between notes outstanding and circulation, it has been necessary to substitute gold for other collateral.

Consolidation of note issue has not gone so far as was anticipated by the founders of the Federal Reserve System. Peculiar monetary conditions in 1917-19 and 1927-29, and the pertinacity with which banks have retained the note issue privilege, probably explain the failure to consolidate. There is also probably less need of consoli-

¹ Cf. *F.R.B.*, 1929, pp. 428-429, for an excellent discussion of the demand for currency in 1922-29; cf. A. A. Young, *op. cit.*, p. 65, and *C.F.Chr.*, 1929 (129), p. 736. The New York Reserve Bank points out that in the last forty-five years there has been a secular decline in the currency outstanding, which is sometimes concealed by movements of shorter periods.

² *F.R.B.*, 1928, pp. 684-687; *ibid.*, 1929, p. 429. In 1927, the amount of money in circulation was reduced by 100 millions, but if allowance is made for an increase in money in vaults of banks, the reduction was even larger. But from the middle of 1927 to the middle of 1928, the decline of the money in circulation was not so great as the reduction of money in vaults, and hence the amount in circulation increased. W. R. Burgess, "The Money Market in 1927," *Review of Economic Statistics*, 1928, p. 20; B. M. Anderson, Jr., "The Autumn Money Market," *Chase Economic Bulletin*, September, 1928, p. 6.

dation to-day, for greenbacks and National Bank notes constitute a permanent part of the total circulation, and any element of elasticity can be contributed by the reserve notes;¹ total circulation has increased at a rapid rate, and reserve notes have supplanted gold.² An appreciable proportion of the reserve notes therefore will always remain in circulation without causing redundancy, and the non-permanent part may fluctuate with monetary conditions. The withdrawal of National Bank and the substitution of reserve notes is peculiarly inappropriate in a period when international cooperation in conserving gold is held to be an important element in the administration of an adequate monetary policy.

If the National Bank notes are retired and reserve notes are substituted, a loss of gold of 35 per cent (approximately) of the total reserve notes put into circulation is involved. It has been held that the loss would be 100 per cent; but in this view, which is based on the assumption of the unavailability of collateral, the necessity of rediscounting, or of the issue of reserve credit in other forms now eligible, for the purpose of obtaining the notes is not considered. Perhaps it would be desirable that the necessary credit be contributed by the reserve banks through purchases of investments, for a member bank would not have to borrow merely because the authorities deemed consolidation necessary; and if the reserve banks should purchase investments ineligible for collateral, the loss of gold might well be close to 100 per cent. (The Glass-Steagall Act makes it possible now to use securities as collateral.) The retention of National Bank notes in circulation means that the reserves against notes are smaller than they seem to be; and a substitution of reserve notes may be justified in the eyes of the world if reserve requirements are reduced somewhat. The substitution of reserve notes may also be undertaken as the handmaid of policy; National Bank notes would be redeemed when contraction was called for. Events of 1932-33 now make this an academic question.

¹ In 1930 reserve authorities began to present figures for the country's monetary gold stock instead of the gold holdings of reserve banks and the total money in circulation instead of reserve notes in circulation. The explanation is that with fluctuations of the amount of gold in circulation reserve notes were no longer an accurate indicator of fluctuations of money in circulation. *F.R.B.*, 1930, p. 342.

² Early in 1917, Jay pointed out that in the first half of the year money accumulates in vaults and causes ease. He therefore proposed that 250 millions of National Bank notes be redeemed and thus the permanent currency would be adjusted to the minimum seasonal demand. P. Jay, *op. cit.*, p. 15.

CHAPTER XXIV

FOREIGN EXCHANGE MANAGEMENT

IN THE years preceding the drafting of the National Monetary Commission Bill and the enactment of the Federal Reserve Act, much attention was paid to the problem of investments in foreign bills, with the result that both bills made ample provision for investments in foreign bills by the central organizations. The reliance on the purchase and sale of foreign assets as an adjunct to gold policy may be termed a devisen policy. It was commonly held that a devisen policy was an adjunct to an adequate gold policy, and sales of foreign bills might be substituted for exports of gold.¹ In the pre-war period there was some justification for modelling our System on that of smaller countries which had been successful in their reliance on devisen policies, for the development of the United States as a creditor nation could not have been anticipated at this early day. But large countries have never been particularly successful in carrying out devisen policies, which will not be effective if other large countries adopt them. American authorities were not aware of this limitation. But I am not now concerned with the problem of substituting foreign assets for gold as a means of economizing gold.

In 1914 reserve authorities expressed the intention of purchasing foreign bills, making advances of foreign currencies, and replenishing foreign balances by purchasing foreign currencies from private institutions. Gold reserves, it was thought, would be protected and absorption of gold here facilitated.² But unsettled conditions in Europe made the reserve banks wary of foreign investments, per-

¹ *Mim.L.S.*, 1927 (27), X-4980, pp. 298-302. Wyatt, Counsel of the Board, quotes the report of Warburg and Delano of October, 1915, on the purpose and history of the provision relating to the opening and maintaining of foreign accounts and on the objects of a devisen policy.

² Preliminary Committee on Organization, *Report*, pp. 85-86; *F.R.A.*, 1914, pp. 158-159; *C.F.Chr.*, 1914 (99), p. 661. Aldrich had contended in 1911 that a large portfolio of short-term bills had been found elsewhere an effective means of increasing gold supplies and preventing its exportation in critical times. P. M. Warburg, *op. cit.*, I, 577. It would be more accurate to say that the purchase of foreign bills *reduces* the gold reserves and later makes possible the sale of foreign bills in place of the export of gold.

haps explaining the delay on the part of the Board in authorizing such transactions.¹ In 1916 the Board deemed necessary the establishment of agencies for facilitating purchases of foreign bills and warned against their purchase if unendorsed by a banker.² Nevertheless a very large part of the bills purchased in 1916 in the open market were foreign, as might be inferred from a consideration of the peculiar monetary conditions which made large purchases of investments in the domestic market by the reserve banks inexpedient.³ In 1918 the Federal Advisory Council approved of the purchase of foreign bills only for the purpose of regulating the exchanges.⁴ The Board revealed its attitude in 1920 in approving the policy of reserve banks which have indicated an unwillingness to deal in foreign bills that have not been accepted by a foreign bank represented by an agency in the United States and holding assets here even though they are payable in dollars in the United States.⁵

Monetary ease in the United States and stringency in Europe stimulated the investment of funds by commercial banks in foreign bills and securities. At first the Board seemed sympathetic with these movements, but late in November, 1916, the Board announced its disapproval of the practice.⁶ Nevertheless, our entry into the War stimulated this tendency, with the result that member banks held in 1919-20 large portfolios of foreign bills and balances payable abroad; ⁷ Governor Harding was concerned over the possible withdrawals of large amounts of foreign money held in the United States.⁸ At this time the Board expressed the opinion that the availability

¹ *F.R.B.*, 1915, p. 360; *F.R.A.*, 1915, p. 4; *F.R.B.*, 1916, p. 15.

² *Ibid.*, p. 530. The Board was given the initiative in establishing agencies; previously they could only approve. U. S. House Report No. 35, *Amendments to Federal Reserve Act* (64: 1), p. 9; Public-No. 270-64th Congress [H. R. 13391], p. 4. The reserve banks also might open and maintain accounts for such correspondents.

³ O. M. W. Sprague, "The Federal Reserve Banking System in Operation," *Quarterly Journal of Economics*, 1916 (30), p. 651; cf. *C.F.Chr.*, 1916 (103), p. 2380; P. M. Warburg, *op. cit.*, 1, 811-815. Warburg was particularly insistent that purchases of foreign bills might solve the problem of earnings and yet not bring inflation at home.

⁴ *F.R.A.*, 1918, p. 868. An official of the Board had pointed out as far back as 1916 that the establishment of foreign agencies was not justified, for resources of reserve banks would be required for domestic business. H. P. Willis, *op. cit.*, pp. 1237-1239, 1243-1244.

⁵ *F.R.B.*, 1920, p. 386.

⁶ *Ibid.*, 1916, pp. 588, 662; *C.F.Chr.*, 1916 (103), p. 1649.

⁷ *Mim.L.S.*, 1928 (29), x-6125b, pp. 144-148 (Kent's memorandum and McGarrath's reply on the foreign business of American banks). The ruling of the non-deductibility of foreign balances was made in 1919.

⁸ *Proceedings*, March, 1919, p. 13.

of a large volume of bills payable abroad made the accumulation of a large surplus of gold unnecessary.¹

In the first six years of reserve history, the commercial rather than the reserve banks were creditors of foreigners — on account of bills, securities, and deposits — and debtors on account of deposits held for foreigners. Large transactions of this nature by private banks jeopardize the control of a central bank. Concerted action on the part of member banks is not likely, however, and hence the danger of large holdings of foreign assets that might be converted into gold is not so great as it seems; but the disposal of large volumes of foreign securities or bills to foreigners makes it possible to replenish cash resources without calling on the reserve banks. Keynes suggests that member banks should not be allowed to include gold held abroad as part of their reserves, because this practice, common on the Continent, jeopardizes the control of the central bank.² But most private banks hold earning assets and not gold, and hence the exclusion of such assets from eligible reserves would not solve the problem. Moreover, the investments of banks in such assets may prevent inflation at home.

The development of a *devisen* policy was also hampered by the depreciation of dollar exchange in relation to the value of neutral currencies in 1917-18, which resulted in the consummation of agreements with neutrals for the support of dollar exchange. All the reserve banks were requested by the Board to participate in these agreements, which involved the acceptance of deposits of foreign governments and their agencies and repayment in gold after the War.³ In 1920 an account was established for the Bank of Japan; each reserve bank was to share in the balances and in the contingent liability on bills purchased for the Bank of Japan.⁴ Similar accounts were opened for several other central banks. In 1923 the Boston Reserve Bank refused to participate in an account opened by the New York Bank.⁵ Governor Harding revealed that an account had first been established in 1920, that several others had been opened in 1921 and 1922, and that the transactions now included the purchase of Treasury bills as well as the earmarking of gold. Partici-

¹ *Mim.L.S.*, 1919 (10), x-1353, p. 29.

² J. M. Keynes, *op. cit.*, II, 75-76.

³ *Mim.L.S.*, 1918, x-1057, July 11, 1918.

⁴ *Ibid.*, 1920 (12), x-1920a, p. 405.

⁵ *Ibid.*, 1923 (18), x-3749a, 3749c, pp. 435-438.

pation in the past had been actuated by a desire to cooperate with other reserve banks in transactions represented as being in the public interest, which then seemed to involve contingent liabilities that ought to be distributed among all reserve banks. The Boston Reserve Bank did not deem it necessary to continue to participate in accounts, opened by the New York Reserve Bank under its own name and initiative, of which the New York Reserve Bank was the sole beneficiary.¹

The establishment of these accounts was the prelude to much larger transactions on behalf of foreign central banks. In recent years correspondents of the reserve banks have held several hundred millions of acceptances on the New York market, and there have been periods when they were virtually the only support of the market.² Foreign banks have thus been able to prevent imports of gold

¹ Governor Harding also revealed the extent of the participation of the Boston Bank, and held that the returns were not commensurate with the risks.

| | Average Free Balance | Average Contingent Liability (Millions of dollars) | Income |
|------------|-------------------------|--|--------|
| 1920 | .292 | 1.168 | ... |
| 1921 | .530 | 2.330 | .004 |
| 1922 | .326 | 2.314 | .004 |
| 1923 | .092 | 2.343 | ... |

Boston's participation accounted for 7-8 per cent of the total.

In the past the Boston Reserve Bank had participated in the earmarking of gold with the Bank of England in June, 1917; deposits of the Argentine Bank of the Nation; the earmarking of gold with the Bank of England in June, 1919, and the Bank of France in September, 1920. The Bank was not prepared to participate in the arrangements with Czechoslovakia and in respect to the accounts with the Banks of England, France, Netherlands, Java and the Switzerland National Bank. *Mim.L.S.*, 1923 (18), X-3749c, pp. 437-438.

² P. M. Brown, *op. cit.*, p. 124.

At the peak of inflation in 1920 the purchase of bills for foreign correspondents was first made; the strain on the money market was perhaps reduced in that manner. *F.R.B.*, 1920, p. 455. In 1921 the New York Bank expressed an interest in the development of the acceptance market because the volume of bills offers an instrument through which rates of interest reflected in the reserve rate may draw funds to the United States and at other times stimulate their withdrawal. *Mo. Rev. of N.Y.R.B.*, April, 1921.

In 1927 thirty central banks held 1.6 billions in foreign assets; approximately one half was held by banks that could include them as reserves and one half was held as a matter of policy by other central banks. *F.R.B.*, 1927, p. 392. Keynes estimates that £600,000,000 of short-term balances were held in New York, £300,000,000 in London and £100,000,000 elsewhere at the end of 1929. J. M. Keynes, *op. cit.*, II, 316.

In 1926 the Board referred as follows to the retention of large foreign balances in the New York money market. "... These balances are, therefore, potential sources of demand upon the Federal reserve banks for gold out of their reserves, the central banking reserves of the United States, which have thus become indirectly a part of the

and to increase their investments without inducing monetary ease at home. The purchase of bills by the reserve banks for their correspondents results in the dumping of additional cash on the money market; but this is not, as critics of the Federal reserve acceptance policy in 1928-29 assume, the whole story. How did the foreign bank obtain the cash invested in acceptances? Probably from one of its members having deposits or investments in New York. A member bank or the money market loses cash to the reserve banks when the foreign central bank acquires the cash from one of its nationals and transfers the deposit to the reserve banks; the purchase of acceptances, therefore, puts at the disposal of the money market cash previously transferred to the reserve bank. Or we may assume that the foreign central bank deems an investment in foreign bills advisable and does not obtain the resources from another bank. The transaction may be considered one that constitutes a demand for dollar exchange, and we may assume that this transaction will have the same effect on the exchange market as the purchase of American steel. It is one of the American credits to be set against the debits. Perhaps the more acceptable explanation is that the purchase of the acceptance is the sequel to a loss by the American money market of cash which might have been reflected in a loss of gold; but that result does not ensue, because the foreign banks convert this cash into domestic currency by putting it at the

reserves against bank credit and currencies in other countries. The existence in America of these foreign balances consequently presents a condition in the banking situation to be taken into account in determining the Federal Reserve System's credit policy with a view to maintaining the country's banking system in a position to meet demands for gold from abroad without disturbing business and credit conditions in the country." *F.R.A.*, 1926, p. 16.

The withdrawal of these balances by their conversion into gold in 1931-32 is evidence that the fears of reserve banks were well-founded. Balances of foreign central banks at the reserve banks were 185 millions on September 21, 1931. On May 31, 1931 and May 31, 1932 they were 8 and 74 millions respectively. Apparently they were accumulating deposits at reserve banks at the expense of their deposits in other banks and their investments and those of their nationals in the United States; and a large part of these deposits has been converted into gold. Whereas the contingent liability of reserve banks on acceptances purchased for foreign correspondents was 380 millions on May 31, 1931, it was but 193 millions a year later, and but 41 millions at the end of January, 1933. *Mo. Rev. of N.Y.R.B.*, October, 1931; *F.R.B.*, 1932, p. 353; *ibid.*, 1933, p. 70.

Short term funds in the United States had been reduced from a figure in excess of 3 billions in 1929 to less than 1½ billions at the end of 1931. In July, 1932, the New York Bank announced that the repatriation of foreign funds had been virtually completed. *Mo. Rev. of N.Y.R.B.*, July, 1932.

disposal of their central banks. If foreign investors purchase bills directly, the effects on the domestic money market are similar except that the member banks do not lose cash to the reserve banks and do not gain as the reserve banks purchase bills for their foreign correspondents.

Interest on the part of foreign central banks, and other foreign investors in the American acceptance and other short term markets, is the reverse of a devisa policy from the viewpoint of the United States. An aggressive policy by the reserve banks would be required to offset the devisa policies of foreign countries.¹ That such a policy has not been necessary, may be explained by the large supplies of gold available in the United States; that such a policy has not played a more important part in American central banking policy may also be explained by the unsettled conditions in the rest of the world and the attitude toward the use of resources of reserve banks on foreign money markets. In the last few years investments in foreign bills have been made in order to save Europe the embarrassment of even larger losses of gold.² Purchases of foreign bills were made in 1927, 1929, 1930, and especially in 1931.³ These purchases have been criticized by politicians and others.⁴

In 1923 and 1924 reserve banks once more were seriously disturbed by the possibility of inflation in the United States. The result was an increased interest in a devisa policy. Reserve banks were advised to invest in foreign bills which had the endorsement of American banks as a means of warding off the inflation that would result from continued imports of gold and large investments in the domestic market.⁵

¹ The interesting suggestion is made in *The Macmillan Report* that central banks should offset the influx of foreign money that results from an increase in money rates, by purchasing foreign assets on its own account. Committee on Finance and Industry, *Report*, Cmd. 3897 (1931), pp. 127-128. To some extent the reserve banks adopted such a policy in 1929; but practical difficulties confront central banks intent on investing large sums abroad. At any rate, disequilibrating influences for the country exporting short-term balances may thus be averted and the receiving country may thus prepare to offset later withdrawals of these balances. Also the pressure for inflation may be less if foreign bills rather than gold are purchased.

² Hearings: *Operation of Banking Systems* (71:3), 1931, pp. 90-91.

³ *Ibid.*, pp. 901-903; *F.R.B.*, 1931, p. 605; *Mo. Rev. of N.Y.R.B.*, July, September, and November, 1931.

⁴ *C.F.Chr.*, 1930 (130), pp. 1059, 1579; *ibid.*, 1931 (132), pp. 62-63.

⁵ *F.R.A.*, 1924, pp. 281-283.

⁶ Whereas, forced investments of Federal reserve banks in our market and continued substantial importations of gold into the United States are factors that might tend to enhance the plethora of money already existing,

At this time the dispute over the establishment of the Cuban agency of the Atlanta and Boston Reserve Banks was settled; undoubtedly the fear of inflation at home contributed to the establishment of this agency, which offered an additional outlet for reserve funds. The Atlanta Bank was to issue notes in Cuba, and the Boston Bank was to have a virtual monopoly of the sale and purchase of bills.¹ An old controversy was opened in raising the question of the Cuban agency; for McAdoo had ardently desired the establishment of foreign agencies or branches of reserve banks many years previously.² On that occasion more able bankers pointed to the danger involved in the undertaking of a risky business by a central bank;³ and the New York Bank now used similar arguments in objecting to the establishment of the Cuban agency.⁴

In 1925 the reserve banks gave a credit to the Bank of England in order to help assure the success of the restoration of the gold standard. An acrimonious discussion raged for several years over

"Resolved, That this council recommend to the Federal Reserve Board to consider the question whether the time has come for Federal reserve banks to exercise their power to invest some of their funds in foreign bills with approved American banking endorsements and payable by and repayable to Federal reserve banks in dollars.

"The Council believes that observing these safeguards and by properly scattering its purchases the Federal Reserve System can safely invest substantial amounts abroad, without any risk of loss on account of exchange or otherwise, and in doing so ward off to that extent the inflow of gold, incidentally assisting the foreign countries involved in their efforts to stabilize their exchanges and to bring them back to definite gold relations."

Cf. Annalist, 1924 (24), p. 602.

¹ *Mim.L.S.*, 1923 (19), x-3761, x-3775, x-3779, pp. 466-467, 552-553, 563-564. In 1927 Governor Harding of the Boston Bank held that the *permission* to issue notes in Cuba was a mistake: the redemption was difficult, and notes might be offered for redemption at embarrassing times. *Ibid.*, 1927 (26), x-4832, pp. 256-257.

² Ultimately provision was made for the establishment of private institutions to provide the financing demanded by McAdoo. U. S. House Report No. 408, *Amending the Federal Reserve Act* (66: 1), 1919; Public-No. 106-66th Congress.

³ *Mim.L.S.*, 1927 (27), x-4980, pp. 298-302; *C.F.Chr.*, 1915 (101), p. 1239.

⁴ The New York Bank held that the object of Section 14(e) was the establishment of independent agencies; the reserve banks might purchase bills to reduce gold movements; unnecessary competition with member banks, particularly in a risky business, was unwise; large redemptions of notes have proved embarrassing. *Mim.L.S.*, 1927 (26), pp. 258-264; *cf. C.F.Chr.*, 1923 (117), p. 1414. (Views of the Economic Policy Commission of the American Bankers' Association.)

Private banks did not object strenuously, for although they feared competition in the exchange business, they would be compensated by the reduction in tills made possible by the establishment of a reserve bank. The Atlanta Bank suggested that its lending power would be increased by keeping out more notes. Pressure from the State Department was also a factor. *Hearings in Matter of Cuban Agency*, Stenographic Report, 1926, especially pp. 14, 43-46, 65-66, 92, 105-111.

this and similar transactions.¹ Governor Strong has defended them:² the low rate of interest was justified, he held, because the resources of reserve banks were elastic and these advances were not made at the expense of other borrowers. Reserve banks might deal in gold, or open foreign agencies; a discount or a premium on the exchanges might result in movements of gold that menaced the stability of the monetary system; the situation could be dealt with by accumulating balances abroad.

It is well known that in the years 1923-27 there was friction between the New York Reserve Bank and the Board over the question of agreements with foreign banks. Counsel of the Board in 1927 wrote a long opinion on the Board's authority over foreign transactions of Federal reserve banks.³ Section 14(e) requires the consent of the Board for the opening of accounts and the like; any transaction under Section 14 is expressly made subject to rules and regulations of the Board. By virtue of specific provisions of the Act, the Board is authorized and empowered to prescribe regulations, restrictions, and limitations governing dealings in bills of exchange between Federal reserve banks and foreign central banks. The latter provision is in Section 13 but necessarily applies to Section 14, for at the time of the introduction of the provision no open market operations were provided in Section 13. By virtue of the right to exercise general supervision over Federal reserve banks and of certain other powers specifically granted in the Act, the Board is authorized to regulate, limit, or restrict transactions in gold involving large amounts. In Counsel's opinion, the statute must be interpreted as a whole. Indeed, the Board has been given a large measure of control over reserves and the rediscount rate; it was not intended that its power should be nullified by large movements of gold undertaken at the initiative of the reserve bank. Senator Glass provides for complete control over such transactions by the Board, in his Banking Act of 1932.⁴

¹ Three types of agreements have been made: loans on gold, agreement to sell gold on credit, agreements to purchase bills. I am indebted to a student, Aaron Goldstein, for analyzing the agreements and offering this classification.

² B. Strong, *op. cit.*, p. 273; Hearings: *Stabilization* (69: 2), 1926, I, 497-502. Compare *C.F.Chr.*, 1925 (120), p. 2358.

³ *Mim.L.S.*, 1927 (27), X-4980, pp. 268-302.

⁴ S. 4412, 72d Congress. A Bill to provide for the safer and more effective use of the assets of Federal Reserve Banks, etc., Section 9 (April 18, 1932).

A BRIEF SUMMARY

LONG before 1927-28 it had become evident to the most enthusiastic supporter of the theory of penalty rates that they were impossible of enforcement. It was possible to enforce rates that were above the market rate on acceptances; but the active participation of the reserve banks in this market was evidence that even this rate was not normally a penalty rate. Victimized by politicians, the reserve authorities took pains to prevent member banks from passing on to their customers any increase in the Bank rate; but what if such efforts were crowned with success? The increase in the Bank rate was not drastic enough to raise it above those on the bulk of member-bank investments. Any significance to be attached to penalty rates in the history of the reserve system is to be associated with rates on the open market, but in 1928, reserve banks encountered an additional obstacle in the unprecedented rise in open market rates. Political expediency also demanded uniformity of Bank rate over the country, and so long as market rates varied greatly, the requirement of uniformity precluded the introduction and the maintenance of penalty rates. Moreover, member banks hold investments that yield varying returns, and a system of penalty rates in relation to the return obtainable on each type of investment would result in borrowing at the lowest rate possible and increasing investments that yield the largest possible return. (Requirements of liquidity are to be considered.) In the reserve system penalty rates have been practicable in relation to some open market investments part of the time; the tendency under these conditions is to borrow at the lowest possible rate, to purchase more investments yielding a high return, and, later, to borrow on assets that do not involve the payment of a penalty rate.

The stage was set for the failure of a Bank rate policy in 1927-29. Penalty rates were out of the question; political pressure in the preceding decade had expressed itself in an unwholesome opposition to higher rates. Reserve authorities even renounced any control over the amount of credit extended by members or the cost at which it was offered. At least in 1928-29 they dared to announce that they could control the volume of credit advanced by members and as-

sumed some responsibility for the state of dear money. Additional obstacles were encountered, however; in particular the high open market rates, the attraction of non-banking funds, and the difficulties faced by members in disposing of open market investments without loss.

Reserve authorities, dissatisfied with the apparent relation of Bank and market rates, devised a new theory in which the *fact* of borrowing by members was the central theme. Market rates are determined by the volume of indebtedness of members rather than by the Bank rate. In 1928-29 the relationship of market rates and indebtedness was not so close as officials had anticipated, and a weakness of the theory is revealed by the history of this period, for the amount of cash at the disposal of members may be more decisive than the amount of indebtedness.

A survey of the philosophy of central-bank control is convincing on this point: expediency has always colored the philosophy. Stability was pronounced as *the* aim of reserve policy when conditions were stable; but any untoward developments were followed by silence on this head. The need of applying measures of trade and production to determine the volume of credit to be created was stressed consistently in the early post-deflation years; but creations of credit, excessive in view of the advance of trade and industry, resulted in the abandonment of this test. In 1920-21 officials learned that they might be subjected to severe criticism for attempting to control the lending policies of members, and in the next seven or eight years they took pains to deny any responsibilities for the investment policies of banks — a position that they were to regret in 1928-29. Disappointment was expressed in official circles that so little help was to be obtained from the status of reserves, either in determining policy or in impressing the public with the needs of an aggressive one. Yet in 1919-20 reserve authorities did not make the fullest possible use of a state of depleted reserves as a possible argument for restraint, and in 1928-29, while they were incessantly harping upon the difficulty of enforcing a policy of dear money when reserves were large, they were drawing gold from circulation to increase their reserves.

Reserve banks at first introduced a very complicated system of rate structures within the reserve district; but the tendency has been rather consistently toward uniformity. It is recognized that the type of the paper presented to the reserve bank is no guarantee

of the use of proceeds, and that each parcel of paper carries the endorsement of the member bank, which increasingly is the decisive factor. Therefore the provision in the Glass-Steagall Act (1932) imposing a rate 1 per cent above the normal on rediscounts of less desirable types of paper seems clearly out of line with the developments of the last ten or fifteen years, and is incompatible with the theory that the type of paper rediscounted is no guarantee of the investment policies of the borrowing banks.

Political pressure has operated to strengthen the tendency toward uniformity of Bank rates between districts; and the exercise of more authority over rates by the Federal Reserve Board than was anticipated has of course resulted in greater uniformity, for the Board is peculiarly sensitive to pressure from politicians. There are those who argue that uniform rates have tended to accentuate the influx of cash to speculative centers; but this argument is premised on a theory of a high correlation of Bank and market rates that is not clearly evident. On the other hand, reserve banks influence market rates through their rate policy, and uniformity frequently results from their competitive zeal to maintain their fair share of the cash resources and business of the System. The Board's influence has resulted in lower rates both when rates were rising and declining. The theory of uniformity has suffered a setback as a result of the experiences of 1927-28; but even in 1930-31 reserve banks, hostile to the theory of uniformity, have been forced to reduce their rates to assure themselves some influence over their members.

Open market operations have been disappointing in their results; the exaggerated faith in their effectiveness was bound to lead to disaster in 1928-29. At first officials assumed that they could control the volume of assets of reserve banks; but when their hopes were not realized they began in 1922-23 to be impressed with the inverse movements of securities and rediscounts, with the result that they were able to concoct an impressive theory concerning the relation of rediscounts and money rates. Unfortunately, movements in securities were not always offset by inverse movements in rediscounts (or even rediscounts and acceptances); and authorities, therefore, were forced to make some modifications of their theory in its statistical form, if not in their discussions, of their capacity to control rates through their capacity to control the distribution of their earning assets and, hence, the volume of rediscounts.

Almost throughout the history of the Federal Reserve System,

attention has been concentrated either on the volume of reserve credit outstanding or on earning assets. The explanation of this fact is not difficult; but from the viewpoint of reserve policy, the concentration of attention on reserve credit outstanding, rather than on cash balances of members, is to be regretted. Members were expanding their deposits at a disconcerting rate in the years 1922-27; the influx of gold and the large growth of time deposits made this development possible. In concentrating their attention on reserve credit outstanding, reserve officials announced that they could not be held responsible for the large growth in reserves and deposits of commercial banks, for the earning assets of reserve banks had remained relatively stable over the whole period. But in truth a central bank ought to assume responsibility for the *growth* in balances of its members; the difficulty was, of course, that even if reserve banks had been disposed to maintain balances at a relatively stable level, they were powerless to do so in view of their moderate holdings of investments.

Officials have never fully recognized the extent to which movements in gold, currency, economies of balances, and the like, rather than their open market operations, determine the position of members. Gold movements in particular have been so large as to be the decisive factor in the determination of the success or failure of reserve policy. In recent years the Board has studied the factors that constitute the supply and demand for reserve-bank credit; and, although in undertaking these illuminating studies, the authorities revealed they were beginning to be aware that open market operations were not the decisive index, these studies are also significant in revealing the emphasis placed on reserve credit outstanding: member-bank balances being merely one item that constitutes a source of supply and demand for reserve credit.

Probably more than any other single factor, the disappointment with reserve policy is due to the excessive faith placed in the efficacy of open market operations. A loss of gold of 500-600 millions in 1927-28 was a fortunate accident for reserve authorities; but in spite of these losses and the reduction of the portfolios of investments in the System's account of about 500 millions (the System's portfolio was reduced to approximately 20 millions), the increase in rediscounts and the sale of acceptances to the reserve banks were adequate not only to maintain balances, but also to increase them. It was conclusively demonstrated that the disinclination to be in

debt, when open market investments offered the temptation of large profits to members, was more or less of a myth; and the very increase in market rates, held to be *the* symptom of effectiveness resulting from an increase in rediscounts, tempted members to increase their rediscounts further and even to the extent of increasing their balances. Economies of tills and of reserves and an acceptance policy that the experience of 1918-20 should have made impossible of repetition further jeopardized the success of reserve policy. Moreover, there probably never had been a time when the liquidation of open market investments by members involved such large sacrifices, or their purchase such large gains. In so far as members cooperated, they merely made larger gains possible for non-member banks and non-banking lenders.

An appraisal of the policy of moral suasion applied in 1918-20 points to the failure of that policy in its first important test. In the succeeding seven or eight years the Board and reserve authorities in the financial centers, at least, denied any intention of dealing with individual banks; even in 1925 it was assumed that banks as a *whole* had extended their speculative activities and were using reserve credit for speculative purposes; hence the check on this unfavorable development was to be the use of the weapon that affects all banks, namely, the Bank rate. But just as the fear of the use of the Bank rate was responsible for the introduction of moral suasion in 1918-20, so it led to the introduction of moral suasion once more in 1929. Now the authorities were prepared to admit, as they had admitted for many years, that reserve dollars could not be earmarked, and hence that an increase in speculation did not necessarily mean that a bank in debt was using reserve funds for speculative purposes. But in renouncing this position, the Board assumed a position even less possible of acceptance, namely, that all member-bank credit in its ultimate analysis rested on reserve credit, and, therefore, a disproportionate growth of credit in any field involved an extension of reserve credit. The Board did not explain how it reconciled this view with its failure to assume any responsibility for the growth of balances of members in the past. In this volume the failure of moral suasion is suggested; and this conclusion holds even if it is true, as a member of the Board has argued, that the policy was finally repudiated in August, 1929, because it had been so successful in discouraging potential borrowers that members were reluctant to borrow and hence had to be once more encouraged.

Examinations by reserve banks have been of little practical significance; they have on the whole been interested in the question of the safety of their investments and therefore in the value of the members' endorsement. A perfunctory examination of some members is all that is necessary to satisfy that requirement. Reserve banks have refused to take any responsibility for losses incurred by the depositors of failed banks. A more thorough form of examination by reserve banks would scarcely serve to reduce bank failures in any important sense, although perhaps better practices, especially by country banks, might have been demanded. Thus, they might have been requested to reduce their holdings of third-rate bonds, although the problem of diversification is solved within limits by the purchase of bonds. Examinations by reserve banks are an important aid in the campaign of moral suasion, and if that manner of control is to be exercised in the future, examinations by reserve banks will assume added importance. This is peculiarly true in the agricultural districts, where control of the lending policies of members has always had some importance.

Members of the Federal Reserve System are sometimes forced to tap the resources of the reserve banks because their correspondents rely on support from them; but city banks suffer not so much because they increase their accommodation to correspondents as because the latter withdraw deposits, which are normally large in relation to the loans granted. Reserve banks have sometimes refrained from applying pressure when it seemed that such measures would merely put an additional strain on the banking customers of city banks or on outside reserve banks. In 1928-29 outside banks were able to finance their large speculative needs in New York, in part by withdrawing their balances with city banks, particularly in cities outside of New York, and to a limited extent, late in the period, by increasing their loans from correspondents. In 1930-31 the increase in balances and the decline and, later, increase in inter-banking accommodation were peculiarly large. A similar cycle occurred in 1932-33.

In 1929 the officials of the reserve system, in denying the right to rediscount to banks that were lending along lines not approved, thus announced that they were repudiating a philosophy of credit accommodation that they had consistently adhered to for many years. In the past the loss of deposits was held to be an approved reason for borrowing by members; and their officials were not as-

sumed to be responsible for any such loss. Undoubtedly, from the viewpoint of correct central banking theory, members should not have an undisputed right to tap the resources of reserve banks, nor are they entirely without blame for losses of deposits. From that viewpoint, the philosophy behind the Glass-Steagall Act is to be regretted, for it strengthens the assumption that members are entitled to the facilities of the reserve banks whenever they lose deposits. Certainly the result will be to give reserve banks control of an even larger proportion of the valuable assets of member banks in distress, and thus the innocent depositors will stand to lose even more than at present, and the "inside" depositors to withdraw freely before failure. On the other hand, the offer of additional facilities for converting assets into cash made available in 1932 can easily be justified in the light of the development of reserve bank practice since 1914 and the dangerous conditions prevalent in 1932. Similar observations hold for the emergency legislation of March, 1933.

Eligibility laws have become more liberal even as their interpretations have been liberalized. The modifications introduced in February, 1932, are consistent with the tendencies of the last fifteen to eighteen years. Long ago it was realized that the eligibility rules were not to exercise the anticipated effects on the investment policies of members, both because the total investments of members are large as compared to the amount of rediscounts, actual and potential, and because the paper rediscounted is no guarantee of the use of proceeds. Every bank ought to have reasonable access to the reserve banks, and arbitrary rules of eligibility ought not to shut out *any* bank which is in a sound position. The amount of eligible paper at the disposal of members is much in excess of the maximum amount of accommodation that reserve banks have ever extended; reserve banks have therefore not been aided to any significant degree in exercising restraint through the application of rules of eligibility. They have tended more and more to rely on a distinction between eligibility and acceptability, thus exercising the discretion that is commonly imputed to bankers; tests that were once part of the test of eligibility are now referred to as tests of acceptability. Increased emphasis on the condition of the member bank, the increased importance of borrowing on the security of the notes of members, and in general the increased attention paid to security, additional collateral, and the like, have all contributed to the re-

duced significance of eligibility. Whatever attention has been paid to eligibility in recent years may be traced to the peculiar notions concerning self-liquidating paper and the type of paper against which notes may be issued, common in 1913 and not yet by any means stamped out. Vested interests are also interested in eligibility provisions that rule out their paper and thus give member banks an excuse for refusing accommodation. The legislation of March, 1933, in approving advances on paper hitherto not eligible or acceptable is consistent with the trend.

The sale of an acceptance to a reserve bank is a method of obtaining cash by which the banks avoid the pressure that may accompany direct borrowing from reserve banks; this avenue of escape has been popular when rediscounts have been at a high level. As early as 1923 responsible officials, however, were aware that acceptance policy ought to be made consistent with general credit policy, and the buying rate was adjusted with some consideration of the total reserve credit outstanding; and in 1917-20, vigorous measures had been taken to discourage the abuse of the facilities obtainable through sales of acceptances. In periods of ease the banks and other elements in the money market have been willing to support the acceptance market; but reserve authorities have been encouraged too much by the renewed interest of the money market under such conditions. In periods of stringency, the burden of supporting the acceptance market has almost invariably fallen upon the reserve banks, and in spite of the unfortunate experiences of 1928-29, the reliance upon reserve banks to support the market has once more been clearly revealed. On the other hand we are too disposed to think of acceptance policy as a water-tight compartment rather than to relate it to general policy. Although it is true that credit policy has sometimes been jeopardized by the assumed need of protecting the acceptance market, it may also be held that an easing of the buying rate has been merely a means of relieving monetary stringency, an objective determined upon in view of the whole situation and to be achieved in the easiest manner available. This was peculiarly true in the fall of 1928; perhaps reserve authorities then miscalculated the extent to which they would be flooded with acceptances as a result of the reduction in rates.

Perhaps the most important point relating to gold policy is that movements have been on such a large scale as to be impossible of control. Open market operations, undertaken with a view to off-

setting gold movements, have been the exception, especially when the movement of gold was inward. In recent years authorities have indicated a regrettable tendency to argue that reserve banks are under obligation to finance gold and currency movements. The consistent pursuit of policies compatible with that principle would deprive reserve banks of an important weapon of control. Have we not been carried too far by a consideration of the disturbances caused by currency and gold movements under our planless system of pre-war days? The attempt to offset losses of gold in 1927 probably accentuated our difficulties in 1928-29. European critics are prone to forget that our failure to offset inward movements, and the disposition at intervals to offset outward movements, operated to bring inflation here and send excessive supplies of gold abroad.

The policy of putting gold into circulation in 1922 and later years was at once a concession to the metallist traditions of our Treasury and an attempt to postpone inflation or expansion until Europe was prepared to receive and hold our gold. But the withdrawal of part of the gold in circulation in 1928-29 may be considered a move that weakened the reserve banks in their attempt to increase money rates. More recently the failure to draw this gold out of circulation rapidly reveals again the unavailability for reserves of gold in circulation, a discovery that was made by European countries many years ago.

The allocation of surplus reserves by reserve banks has always been a perplexing problem, especially in view of the fact that the Federal Reserve Act covers the subject inadequately. If the level of reserves is an important consideration in justifying any given policy, then the possibility of presenting reserves in such manner as to obtain the desired support of the public is at once apparent. Authorities have realized the possibilities but have not made full use of them because the charge of deception could easily be envisaged.

The problem of free gold is relevant here. It is fortunate that the Glass-Steagall Act for the time being makes the distinction between free gold and excess reserves less important than formerly, for the increased attention given to the question has served to obscure our position. It has not been adequately recognized that excess reserves that are not free gold are converted into free gold as needs arise through the process of rediscounting or purchases of acceptances — unless the reserve banks prefer to purchase securities. (And with

the passage of the Glass-Steagall Act, Government securities have been made eligible for collateral.) Another danger is that losses of gold will not be followed by adequate measures of restraint if reserve authorities concentrate too much attention on the movements of free gold. It may also be noted that the anomalous situation arises by which the reserve banks can strengthen their reserve position by lending more freely.

Federal reserve notes have been issued freely in response to needs, and only occasionally has the possibility of modification of this policy been raised. Withdrawals of notes have been held to be a check on expansion and also to have saved reserve banks from issuing more gold. The unavailability of collateral has never been a check on issues, although in 1931 a deficiency of collateral prevented reserve authorities from issuing reserve credit in a costless manner; the tendency has been to liberalize rulings and to make more efficient use of available supplies. Therefore the inclusion of Government securities with paper eligible as collateral, as provided in recent legislation (1932), is consistent with earlier tendencies. Moreover, it is in line with the proposal of monetary experts who would release excessive supplies of gold tied up as reserves or collateral against notes. The failure to retire National Bank notes is to be explained along the same lines, for the substitution of reserve notes would require additional supplies of gold to serve as reserves. (Eligible paper required for collateral would be forthcoming, however, as members rediscount to obtain notes.) Legislation of March, 1933, is in line with past developments.

The devisen policies of reserve banks have not been so important as had been anticipated in 1913 because our large reserves, the development of New York as a money market, and the accumulation of large balances here made such policies unnecessary or inexpedient. Moreover, unsettled conditions in Europe made the investments of the resources of reserve banks abroad unwise, and it was feared that politicians would frown upon the diversion of resources to finance foreigners. In more recent years, however, reserve banks have been more interested in foreign bills and the like as a means to restoring monetary stability in Europe.

It is by now apparent that the weapons of control available to reserve banks are not powerful. Penalty rates are out of the question, and the use of the Bank rate is impaired by the attention paid to political considerations, conflicts of administration, and regional

difficulties. Open market operations have not been so effective as reserve authorities seemed to believe that they might be: they have put too much faith in the open market-indebtedness doctrine, and their administration has been faulty. The use of moral suasion has met obstacles in the opposition of several of the reserve banks, in an accepted theory that member banks have the right to rediscount, and in a failure to keep adequately informed of the condition and policies of member banks. Eligibility laws and their interpretation have grown increasingly liberal, with the result that the possibility of controlling either the money market or the supplies of member-bank credit has become increasingly remote. And, finally, acceptance policy, large gold movements, a theory that disturbances caused by gold and currency movements are to be averted — all these have further handicapped the reserve banks. Now let us turn to the history of 1927-33.