FUNDAMENTAL REAPPRAISAL OF THE DISCOUNT MECHANISM

EVOLUTION OF THE ROLE AND FUNCTIONING OF THE DISCOUNT MECHANISM

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Prepared for the Steering Committee for the Fundamental Reappraisal of the Discount Mechanism Appointed by
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The following paper is one of a series prepared by the research staffs of the Board of Governors of the Federal Reserve System and of the Federal Reserve Banks and by academic economists in connection with the Fundamental Reappraisal of the Discount Mechanism.

The analyses and conclusions set forth are those of the author and do not necessarily indicate concurrence by other members of the research staffs, by the Board of Governors, or by the Federal Reserve Banks.

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INTRODUCTION

There are two major aspects of the discount function, both of which exercise some influence on the volume of reserves supplied via the discount window.

Discount policy (administration of the discount window) influences the total volume of borrowing. It also affects the allocation of Reserve Bank credit among member banks and indirectly it may influence the allocation of member bank credit among final uses. And the discount rate affects the cost of member bank borrowing. But discount policy is not considered an effective means of influencing specific uses of credit.

A complete history of the evolution of the discount function -- philosophy, principles, and policies embraced in administration of the discount window and in discount rate policy -- as recorded in the literature within the System and by outside economists would be a weighty document. Much of the material, however, is of historical interest only. This paper is limited to information and experiments that might be helpful in determining what the role of the discount function should be.[1/]

The principal sources of material used were:

1. Unpublished material available within the System, especially the Proceedings of the four policymaking groups prior to 1935 --

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1/ It should be noted that academic literature since World War II is included in another project.

Conferences of the Governors of the Federal Reserve Banks; Conferences of the Chairmen and Federal Reserve Agents of the Federal Reserve Banks; the joint conferences of these groups with the Federal Reserve Board; and minutes of the Open Market Investment Committee.

Other unpublished System material included special studies, such as the report of the ad hoc Committee on the Discount Mechanism in 1954, and the excellent "History of the Lending Functions of the Federal Reserve Banks," by Howard H. Hackley, which includes all amendments to the Federal Reserve Act relating to the discount function and revisions of Regulation A.

2. Published material, including works of the better-known academic economists (prior to World War II); Annual Reports of the Federal Reserve Board; and Congressional Hearings, particularly the "Agricultural Inquiry," Joint Commission of Agricultural Inquiry in 1921 and "Operations of the National and Federal Reserve Banking System" (U.S. Senate) in 1931.

It should be noted that the bulk of the material to be covered in this project appeared prior to the Great Depression. The discount function fell into disuse following the Great Depression and did not become a significant policy instrument again until after the Accord in March, 1951. Within the System, policy discussions since the Accord, except for the study in 1953-54 and the current study, have dealt largely with open market operations.

The paper is divided into two main parts. Chapter I is a brief summary of the evolution of the discount function; Chapter II deals in more detail with the principal concepts and philosophies embraced in discount and discount rate policies, and some experiments which appear of relevance in determining the current role of the discount mechanism. Evaluation, other than that made in the literature covered, is often unnecessary.

No attempt has been made to cover each amendment affecting the discount function or each revision of Regulation A. Neither are the V-loan and 13b-loan programs included. These are adequately dealt with in the study by Howard Hackley.

CHAPTER I

SUMMARY OF FINDINGS

Evolution of the discount function during the past half-century reflects the influence of economic thought and economic events. The underlying philosophy of the discount provisions of the Act was the real bills doctrine that bank credit should be confined to short-term productive uses. This view strongly conditioned the evolution of the discount function in the first two decades. It even led to efforts, at times, to use discount policy to curb the use of bank credit for certain purposes.

Economic events, however, soon created doubts as to the validity of this doctrine, both in principle and in practice. Confining credit to "productive uses" would not necessarily automatically result in the proper total quantity of bank credit. During an inflation boom, total bank credit expansion resulting from lending for so-called "productive uses" could be excessive; hence it was necessary to regulate the total quantity of bank credit in the interest of sustained overall stability.

These two views had significant implications for the discount function. For selective regulation, such as confining bank credit to certain uses, discount policy was considered a more useful instrument; the discount rate was regarded as a more effective instrument for regulating the total quantity of bank credit.

Regulating Use of Bank Credit

The philosophy embodied in the Federal Reserve Act contemplated that Reserve Bank credit should be extended for a short term only, and confined to financing production and the distribution of goods from producer to consumer. It should not be used to finance investments or speculative activity of any kind -- securities, commodities, or real estate. Confining bank credit to productive purposes, it was believed, would result in an automatic response of supply to the expanding and contracting needs of commerce, industry, and agriculture.

The implications of this "real bills" doctrine for Federal Reserve policy were twofold: Use of Federal Reserve credit to finance unproductive activities should be prevented, and System officials should pursue a passive policy allowing the supply of credit to respond to changing demands of "legitimate" business and agriculture.

At first, eligibility requirements were considered the principal method of confining Reserve Bank credit to productive uses; however, experience soon demonstrated that the kind of paper offered for discount was no indication of the uses made of the bank credit extended on the basis of the proceeds.

Following World War I, emphasis shifted to "direct pressure" as a means of confining bank credit to appropriate uses. Even though Reserve Bank officials might not be able to identify the specific uses made of the proceeds of a discount, they could and should keep informed of the loan and investment policies of their member banks. Reserve Bank credit should be denied those banks using it for unproductive purposes.

Most System officials were sympathetic with the ultimate goals of direct pressure, but there was growing opposition to the policy in the twenties. One of the major points of opposition was that it was impractical. It was impossible to confine credit to productive uses through administration of the discount window. A member bank discounts or borrows to replenish a reserve already deficient -- a deficiency which usually results from a number of transactions. Moreover, reserves created by loans to banks making only "productive" loans might flow to banks extending credit for speculative and nonessential purposes. Secondly, a substantial number of banks do not borrow from the Fed and hence are not subject to direct pressure. Finally, there was increasing doubt that confining credit to productive uses would result in the proper total quantity of credit. The total quantity of credit, even under a productive use criterion, may expand more rapidly than ability to produce goods and services to match it. Discount policy by itself has not been an effective means of regulating the total quantity of bank credit.

The controversy over direct pressure intensified in the latter part of the twenties as an increasing flow of bank credit went into the stock market. With business operating below capacity and prices tending downward, the situation called for selective control to curtail credit for speculation without making it scarcer or more expensive for business and agricultural purposes. Those favoring direct pressure instead of an increase in the discount rate thought the latter would have little effect on speculative use of bank credit but would work a hardship on business and agriculture. Others, however, thought the policy of direct pressure could not be implemented effectively. Some loans against securities might be for speculation but others were for productive purposes. They favored an increase in the discount rate.

The Great Depression brought to a close attempts to implement the real bills doctrine as a means of achieving business stability. The quantity of eligible short-term commercial paper dwindled and eligibility requirements handicapped the Reserve Banks in providing adequate assistance to some member banks. Then, too, emphasis continued to shift from selective control to regulating the total quantity of bank credit and the money supply.

Allocation Among Banks

Preventing excessive borrowing by individual member banks has always been a problem, especially in the earlier years of the Federal Reserve System. System officials thought too much borrowing was unsound banking policy because experience had shown that banks heavily indebted to the Reserve Banks were among the first to fail. Excessive borrowing was also considered inconsistent with the spirit of the Federal Reserve Act which authorized Reserve Banks to administer the discount window so that each member bank would be able to get its fair share of Reserve Bank credit. The problem here involved allocation of Reserve Bank credit among member banks instead of allocation of member bank credit among uses.

One of the early experiments in attempting to prevent excessive borrowing by some member banks was the establishment of progressive discount rates by four Reserve Banks. Progressive rates would penalize excessive borrowers without making borrowing more expensive for member banks not abusing the privilege.

The four Reserve Banks establishing progressive rates soon abandoned them. A fundamental weakness was that the penalty was based entirely on quantity of borrowing in excess of a basic line, which in turn was computed in an illogical manner. The device worked a hardship on banks suffering unusually large seasonal or other types of deposit drains, and exceptionally high rates paid by a few banks aroused widespread criticism and subjected the System to political attack. The consensus of Federal Reserve officials seemed to be that excessive borrowing could be better controlled by discretionary discount policy than by a rigid, mechanical formula such as progressive discount rates.

The burden of preventing excessive borrowing by individual banks fell mainly on administration of the discount window. Reserve Bank officials soon began to keep closer tab on member banks borrowing unusually large amounts or continuously. In the case of problem banks the usual investigation was supplemented by conferences with officers or directors of the borrowing bank. Reserve Bank officials also used various contacts and methods to try to educate member banks on proper use of the discount window.

Appropriate Borrowing

Another aspect of discount policy discussed in the twenties was appropriate uses of the discount window. There seemed to be general agreement that borrowing from the Fed should be short term to meet temporary needs, that habitual borrowing was unsound and undesirable, and that banks should not borrow to profit from higher rates.

The discount window was not used much from about the mid-thirties until 1951 because of large excess reserves generated by gold imports and the ready availability of reserves under the policy of supporting the prices of Government securities. With the return to a flexible monetary policy, System officials launched studies in order to reappraise use of both the discount window and open market operations in the new environment.

The studies and the Revision of Regulation A in 1955 were concerned primarily with appropriate and inappropriate types of borrowing from the Reserve Banks. The principles adopted were largely a reaffirmation and refinement of principles which evolved, mainly in the twenties.

Appropriate uses of the discount window were principally twofold: short-term advances to meet temporary reserve drains, such as from a deposit loss, and seasonal requirements that could not reasonably be anticipated; and advances for longer periods if necessary to enable member banks to meet unusual and emergency situations.

Inappropriate uses included continuous borrowing to supplement a bank's own resources, borrowing for speculative purposes, and borrowing to profit from interest-rate differentials or to obtain a tax advantage.

The philosophy embodied in the revision of Regulation A contemplated only a limited use of the discount window. Except in emergency situations, advances are to help meet temporary reserve drains that a well-managed bank ordinarily would not be in a position to meet out of its own resources. Borrowing is to afford time for a more orderly adjustment of assets and/or lending policy.

The Discount Rate

The Federal Reserve Act contained little guidance for discount rate policy. Section 14 stated that rates should be established "with a view of accommodating commerce and business."

Initially, there was little crystallized thinking among System officials either as to the role of the discount rate or as to criteria that would be useful in determining the timing of rate changes. The penalty-rate concept was widely accepted in principle but considered impractical in the United States.

Several factors influenced the role of the discount rate in the twenties. Emphasis on the use of discount policy for selective credit regulation, and a consensus among System officials that the discount rate was ineffective for preventing excessive borrowing by an individual member bank, tended to relegate the discount rate to a secondary role. On the other hand, belief by some officials that "direct pressure" was impractical, and increasing emphasis on the need to regulate the total quantity of credit favored a more important role for the discount rate. Discovery of open market operations in the early twenties gave System officials two quantitative tools. The discount rate and open market operations soon came to be regarded as the "twin instruments" of Federal Reserve policy.

System officials devoted considerable attention to guides that might be useful in determining the timing of discount rate changes. The dominant view that emerged was that no simple rule or formula would suffice. Instead, decisions should be made on the basis of a wide range of relevant information on current credit and business conditions. Perhaps the most widely accepted principle was that the discount rate should be raised when there was evidence that bank credit expansion was becoming excessive in relation to the volume of business activity, and that the rate should be lowered in periods of depression to encourage expansion.

Studies were also initiated to determine the effects of discount rate action. Surveys, including questionnaires and calls on member banks by field men, indicated that changes in the discount rate had little effect on bank loan rates to customers. Exceptions were loans which were closely related to market rates, such as call loans, and business loans of the larger banks in financial centers.

Even though most member banks indicated that changes in the discount rate had little effect on customer loan rates, some System officials thought the cost effect of a change on borrowed reserves had a significant influence on the total volume of bank credit.

Since 1951, open market operations have been the major policy instrument. One new proposal regarding the discount rate, advanced in the academic literature, was for tying it to some relevant market rate.

Concluding Remarks

The evolution of the discount function, even though interrputed by a long period of quiescence in both implementation and thought, has some significant implications for discount policy. On the basis of past experience, the principal implications, in the opinion of the author, are the following:

1. Administration of the discount window has in the past been neither an equitable nor an effective instrument for implementing a policy of selective credit control. At best, it has reached only a minority of commercial banks (a large number of member banks plus all nonmember banks that do not use the discount window) and an even smaller fraction of all lenders. Discount officers can ordinarily identify "misuse" only after it shows up in bank condition reports -- a fait accompli. Moreover, banks denied access to the discount window because of noncompliance may have an inflow of reserves from banks which do borrow from the Reserve Banks, and they can acquire reserves in the market.

2. The use of mechanical devices in administering discount policy has never been a satisfactory substitute for discretion.

The experiment with progressive discount rates in 1920 was soon abandoned. Some of the shortcomings were the result of the particular type of plan adopted. But even more serious weaknesses are inherent in progressive rates. First, no logical basis has thus far been proposed for computing a basic line. Any basic line, regardless of how computed, implies that quantity is the primary determinant of validity of borrowing from a Reserve Bank. Borrowing in excess of some arbitrary basic line is automatically penalized regardless of the reasons for the borrowing. This view is the antithesis of the concept (and the spirit of Section 4 of the Act) that, in deciding whether to extend credit to a member bank, Reserve Bank officials should take into consideration the condition and policies of the applicant bank and whether the proposed borrowing is consistent with the maintenance of sound credit conditions.

Second, progressive rates hit especially hard member banks subject to erratic and pronounced seasonal and other temporary reserve drains.

Preferential discount rates, used only briefly except in war financing, proved to be discriminatory and ineffective. The preferential rate soon became the effective rate.

One of the lessons of experience is that courageous and well-informed discount officers have been more effective in implementing discount policy than any rule or mechanical formula yet developed.

3. Eligibility requirements have been more of a handicap than a help in implementing policy. They never achieved the purpose for which they were intended, and the philosophy underlying the requirements has been inappropriate for the economic environment that has prevailed for many years. It is for this reason mainly that the System has recommended to the Congress their elimination from the Federal Reserve Act.

4. Experience has demonstrated that the discount function has been useful in reinforcing anticyclical monetary policy -- forcing banks into the discount window and raising the discount rate when desirable in implementing a restrictive policy, and lowering the discount rate and using open market operations to take member banks out of debt in periods of monetary ease.

CHAPTER II

EVOLUTION OF THE DISCOUNT FUNCTION: EPISODES OF CURRENT SIGNIFICANCE

This chapter is devoted primarily to issues and episodes believed to be of some relevance in the current reappraisal of the discount function. It attempts to summarize the dominant views expressed within the System and in academic literature prior to World War II. The principal topics covered are: Why member banks borrow; attempts to regulate the final use of bank credit; techniques of allocating Reserve Bank credit among member banks; appropriate and inappropriate borrowing; and the discount rate.

Why Do Member Banks Borrow?

Soon after the System began operations Reserve Bank officials became concerned over the general attitude of member banks toward borrowing from the Reserve Banks. Many banks thought of borrowing from the Reserve Bank in the same way as borrowing from a correspondent -- a source of funds to lean on when its own resources were short. Reserve Bank officials tried to inculcate in bankers the philosophy that Reserve Banks should be regarded as a lender of last resort.

In the twenties, two divergent views emerged (most of the analyses being in academic literature) as to why member banks borrow. One view was that member banks borrow only when in need of additional funds; the other put more emphasis on profit motivation. These views had significant policy implications, especially for the role of the discount rate.

Need theory

One view which emerged in the early twenties and still prevails is that member bank borrowing is motivated primarily by need rather than by profit.[1/] In essence, the doctrine was that member banks are reluctant to borrow from the Reserve Banks; they generally borrow only to meet a reserve deficiency; and they repay indebtedness to the Reserve Bank as soon as practicable. In repaying, however, banks usually withdraw funds from the money market and shift the reserve deficiency to other banks.

It is obvious that need is substantially influenced by open market policy. If sufficient reserves are supplied through open market purchases there is little need to borrow; if, however, insufficient reserves are supplied through open market operations, member banks may be compelled to turn to the discount window.

Experience was used to support the need motivation of borrowing. A substantial spread between the discount rate and market rates was not unusual. Hence it was alleged that if member banks borrow primarily for profit, market rates could not long remain above the discount rate. Borrowing to take advantage of higher market rates would soon eliminate the spread. Neither could market rates remain much below the discount rate so long as there was any appreciable volume of member bank indebtedness to the Reserve Banks.

1/ For example, see Winfield W. Riefler, Money Rates and Money Markets in the United States, New York: Harper & Brothers, publishers, 1930, pp. 19-32. Riefler was a leading advocate of the need theory.

A significant implication of the need theory is that the discount rate is not a major determinant of the volume of member bank borrowing. Exponents of the doctrine thought the volume of member bank borrowing had a greater influence on market rates than changes in the discount rate. The discount window, although only a marginal source of funds, had an important influence on market supply and hence on market rates. Evidence cited was that market rates moved closely with the volume of member bank borrowing, and changes in the volume of borrowing usually preceded changes in rates.

The discount rate had some influence on market rates, however. If the discount rate is above market rates, banks may turn to call loans or other market sources for reserves instead of the discount window. If the discount rate is below market rates, the tendency would be for banks in need of funds to turn to the discount window.[2/]

Profit theory

The profit theory, simply stated, is that member bank borrowing from the Reserve Bank is motivated primarily by profit. Member banks tend to borrow when it is profitable. Profitability of discounting or borrowing from the Reserve Banks is a major determinant of the volume of member bank borrowing.

The profit theory, although not expressly stated and developed, is implicit in a substantial part of System material dealing with discount rate policy since World War I. Proceedings of policy discussions prior

2/ For example, see Riefler, op. cit.

to the Great Depression frequently reveal general acceptance of the principle that the discount rate should be a penalty rate in order to discourage borrowing for a profit; it was agreed, however, that implementation was impracticable in the United States because of the wide variation in interest rates regionally and by type of loan.[3/]

A more sophisticated version of the profit theory is that member banks, faced with a reserve deficiency, will tend to select the lower cost among alternative reserve adjustment media.[4/] When the discount rate is above market rates on assets available for readjustment -- so-called secondary reserve assets--banks tend to turn to the market instead of borrowing from the Reserve Banks to cover reserve deficiencies. Banks are encouraged to borrow from the Reserve Banks when the discount rate is below market rates on these assets. The view widely accepted since revival of the discount function in post-World War II -- that the discount rate should be equal to or above market rates on commonly used alternative assets for reserve adjustment, especially in periods of restraint -- implies acceptance of this version of the profit theory.

Synthesis and evaluation

The need-profit doctrines came under close scrutiny in the mid-thirties, especially by Robert Turner who attempted to test the two theories, both analytically and empirically.

3/ For example, see Proceedings of a Conference of the Federal Reserve Board with the Governors and Chairmen and Federal Reserve Agents of the Federal Reserve Banks, October 25-28, 1921 (p. 20 et passim); Proceedings of a Conference of the Federal Reserve Board with the Governors of the Federal Reserve Banks, November 19-21, 1919, Vol. I. (pp. 59-73 et passim); April 12-15, 1921, Vol. I. (et passim).

4/ For example, see Robert C. Turner, "Member-Bank Borrowing," The Ohio State University, Columbus, Ohio, 1938, pp. 92-97.

A critical weakness of the need theory is the nebulous nature of the basic concept. Advocates of the doctrine did not give a clear definition of need, usually referring to seasonal drains and temporary reserve deficiencies arising from market factors such as deposit flows. Need in this sense, however, should have little effect on the total volume of member bank borrowing. Seasonal drains and other market flows shift reserves among banks but do not affect significantly reserve needs of the banking system. If, on the other hand, need is defined to embrace all types of reserve deficiencies, reserve "needs" resulting from loan and deposit expansion, including lending and investing to take advantage of a rate spread, would be included.[5/]

Turner points out that a spread between market rates and the discount rate does not prove that member banks do not borrow for profit, only that they do not borrow in sufficient volume to bring market rates into line with the discount rate. Banks may borrow to re-lend or invest at a profit, but limits imposed by discount policy and the tradition against borrowing may prevent sufficient volume to eliminate the rate spread.

Turner, using available statistical data, attempted to test the validity of the profit theory. His findings may be summarized as follows:

1. There was no correlation between the volume of member bank borrowing and the profit spread between the discount rate and bank customer

5/ For an explanation and evaluation of the two doctrines, see Turner, *op. cit.*, Chapters IV, V, and VI.

loan rates, or between borrowing and the profit spread between the discount rate and bond rates. In other words, banks try to take care of their customers regardless of whether they are able to borrow from the Reserve Banks at a profit. And apparently they do not borrow from the Fed to invest in bonds even when the return affords a profit.

2. There was a fairly close correlation between the volume of member bank borrowing and the profit spread for three types of open market paper: call loans to brokers, time loans to brokers, and commercial paper. There was also close correlation between the volume of borrowing and the profit spread between the discount rate and the average of these three market rates.

3. Changes in the profit spread for open market paper appeared to be an important determinant of changes in the volume of member bank borrowing in the period 1922-1930, but the correlation was not so close for the period 1931-1936.

On the basis of his research and analysis, Turner concluded that the profit theory is not a complete explanation of the volume of member bank borrowing but it is a significant one. The volume of borrowing tends to increase as the profit spread widens, but because of the tradition against borrowing there is a point beyond which widening of the spread has gradually less effect. There is an observable tendency for changes in the profit spread either to lead or to occur at the same time as changes in the volume of borrowing. A negative profit spread is associated with a low volume of borrowing but appeared not to be so important in determining changes in the volume of borrowing. Finally, a general theory of member bank borrowing must embrace consideration of factors influencing reserve positions as well as the profit theory.

Turner's conclusions are valid. Bank loan and investment policies are not directed toward taking advantage of every profit spread between their earning assets and the discount rate. The tradition against borrowing, and administration of the discount window, inhibit such actions. Nevertheless, a profit spread may induce some banks, especially the more aggressive ones, to pursue more liberal lending and investing policies; and the relation of the discount rate to rates on alternative reserve adjustment media surely influences the source of funds used to cover reserve deficiencies.

Attempts to Regulate Final Use of Bank Credit[6/]

The general philosophy underlying the discount provisions of the Federal Reserve Act was that Reserve Bank credit should be confined to productive uses in industry, commerce, and agriculture. It should not be used to finance speculative activity of any kind -- securities, real estate, or commodities -- or to finance investments other than Government securities.

6/ The principal sources, within the System, used on the discount function in the period prior to the mid-thirties were: Proceedings of conferences of the Governors of the Federal Reserve Banks, and conferences of the Governors and the Chairmen and Federal Reserve Agents of the Federal Reserve Banks with the Federal Reserve Board; minutes of meetings of the Open Market Investment Committee; and Annual Reports of the Federal Reserve Board. The proceedings of the annual conferences of the Federal Reserve Board with the Governors and Chairmen of the Federal Reserve Banks, usually held in October or November, in the first part of the twenties are especially useful because the meetings were devoted entirely to papers and discussions of the Federal Reserve policy.

This philosophy of the discount function was expanded and refined in the twenties. A view prevalent inside and outside the System was that confining bank credit to short-term productive purposes was the real pathway to economic stability. Productive purposes included financing an orderly flow of goods from producer to consumer, but not the building up of inventories in anticipation of higher prices. For example, the Federal Reserve Board's Annual Report for 1923 stated, "the economic use of credit is to facilitate the production and orderly marketing of goods and not to finance the speculative holding of excessive stocks of materials and merchandise."7/ Confining bank credit to productive uses, as here defined, would automatically result in the appropriate quantity of credit. This point was also well stated in the 1923 Annual Report:

> It is the belief of the Board that there will be little danger that the credit created and contributed by the Federal reserve banks will be in excessive volume if restricted to productive uses. . . .. Administratively, therefore, the solution of the economic problem of keeping the volume of credit issuing from the Federal reserve banks from becoming either excessive or deficient is found in maintaining it in due relation to the volume of credit needs as these needs are derived from the operating requirements of agriculture, industry, and trade, and the prevention of the uses of Federal reserve credit for purposes not warranted by the terms or the spirit of the Federal Reserve Act.8/

Eligibility requirements

The initial view was that confining bank credit to productive uses could be implemented by eligibility requirements. The original

7/ Page 5.
8/ Pages 34-35.

Federal Reserve Act limited access to the discount window primarily to short-term paper arising from or the proceeds to be used in financing industrial, commercial, and agricultural activities. Except for a minimum gold reserve requirement of 40 per cent, eligible commercial paper could also be pledged as collateral against the issue of Federal Reserve notes. Thus access to the discount window and, to a large extent the issue of Federal Reserve notes, were directly related to holdings of eligible commercial paper. As a result, it was expected that Reserve Bank credit and Federal Reserve notes would automatically respond to the changing needs of production and trade.

Events and experience soon demonstrated that eligibility requirements were not an effective method of regulating use of credit. To facilitate financing the large defense expenditures incurred in World War I, the Reserve Banks were given authority to make loans to member banks against Government securities. More significant, however, experience soon demonstrated that the kind of paper offered for discount or put up as collateral for loans afforded no indication whatever of the use a member bank was to make of the proceeds. In fact, member banks came to the discount window to cover a reserve deficiency that had already occurred and which usually reflected the combined effects of a large number of transactions.

Preferential discount rates

Another early experiment in trying to influence the use of credit was the preferential discount rate. In 1915, a preferential rate was established on trade acceptances to encourage development of a market for acceptances and broaden the use of this type of paper. A broader market for acceptances would tend to stimulate United States exports and increase the liquidity of member banks. In the same year a preferential rate was established on paper based on some staple commodities to facilitate seasonal financing of the marketing of agricultural products.

In World War I and World War II, System officials established preferential rates on discounts and advances collateralled by Government securities in order to facilitate financing large wartime expenditures. The preferential rate in World War II applied to member bank borrowing collateralled by short-term Government securities.

Experiments with preferential discount rates, except against Government securities in wartime, were short-lived. There were two serious disadvantages. One was that banks in need of funds offered for discount the type of paper with the lowest discount rate. The preferential rate was the effective discount rate. Second, preferential rates were discriminatory. Member banks holding the types of paper with preferential rates could borrow more cheaply than banks not holding such paper. Except for Government paper in wartime, System officials -- especially Reserve Bank officials -- were strongly opposed to preferential discount rates, believing that all types of eligible paper should carry a uniform rate.

Preferential discount rates (or a penalty rate) have been proposed occasionally other than in wartime since the early experiments. In 1928, the System had been following a policy of moderate restraint in order to curb speculative use of bank credit, but there was no need to curtail bank credit for business and agricultural purposes. A member of the Federal Reserve Board recommended establishing a special preferential discount rate for paper drawn to finance the marketing of agricultural products and a preferential buying rate for bankers' acceptances drawn for the purpose of seasonal crop movement. The intention was to ease the impact of restraint on the marketing of agricultural products. The proposal which was presented to the Open Market Investment Committee was opposed by the Reserve Bank Governors. They opposed such preferential rates as a matter of principle and also on the basis that they would not result in lower rates to farmers.9/

In the fall of 1928, Professor O.M.W. Sprague proposed a penalty discount rate for member banks making stock exchange loans. For example, he stated:

> To curb the demand of brokers for credit, it is necessary to destroy the confident belief that additional funds will always be forthcoming in response to an advance in rates. This can be readily accomplished by the addition of a simple provision to the Federal Reserve act, authorizing, or perhaps directing, the Reserve Banks to impose a rate 1 per cent higher than the call renewal rate upon rediscounts for member banks that are lending on the Exchange at the time the accommodation is secured. If need be also a minimum borrowing period of seven days might be established.10/

Serious objections were raised to the Sprague proposal. In addition to the usual objections, it would be difficult to implement such discretionary power wisely. Bank credit was needed to facilitate distribution of new corporate securities which, in turn, were needed at

9/ Minutes of the Open Market Investment Committee, August 13, 1928.
10/ O.M.W. Sprague, "A New Device for Reserve Bank Control of Brokers' Loan Inflation," The Annalist, October 19, 1928, p. 599.

times to encourage business recovery. It would not be easy to determine when securities loans were excessive. Passage of such legislation might also imply that securities loans are objectionable *per se*.[11/]

Direct pressure

Ineffectiveness of eligibility requirements along with immobilization of discount rate policy following World War I because of Treasury financing requirements resulted in a shift of emphasis to "direct pressure" via the discount window. There was substantial support within the System to use direct pressure both to regulate the final use of bank credit and to prevent excessive member bank borrowing from the Reserve Banks.

In the spring of 1920, the Federal Reserve Board asked the Reserve Banks to submit a written report of methods used to keep informed on how member banks were using Reserve Bank credit. Some members of the Federal Reserve Board were ardent advocates of using discount policy to bring pressure on member banks to curtail credit for nonessential uses. According to this view, Reserve Bank officials should keep informed on member bank lending and investing policies and deny access to the discount window to those extending credit for speculative and other nonessential uses. In general, Reserve Bank officials did try to keep informed of their member banks' loans and investments through regular reports, bank examination reports, and interviews with officials of problem banks. Most of the Reserve Banks, through circular letters and other methods,

11/ For example, see Harold L. Reed, Federal Reserve Policy 1921-1930, New York: McGraw-Hill Book Company, Inc., 1930, pp. 183-184.

urged member banks not to make loans for speculative activities, such as in securities or to enable borrowers to hold commodities for higher prices. The Governor of one of the Reserve Banks stated that borrowing to buy automobiles was one of the most extravagant things they had to cope with and that people were buying cars who could not afford them. One Reserve Bank refused to discount paper arising from the sale of pleasure automobiles, on the basis that the industry was overextended. The policy was soon abandoned, however. Some Reserve Banks, upon receiving a request for discount accommodation from member banks making speculative loans, followed the policy of asking the banks to liquidate such loans instead of borrowing from the Reserve Bank.

There was considerable sentiment that it was impractical to try to distinguish between essential and nonessential uses of bank credit in peacetime; however, discretionary discount policy could have beneficial results. Knowledge that Reserve Bank officials were scrutinizing their loans and lines of credit would cause member bank officials to be more selective in extending their credit. This attitude of member bank officials would in turn cause borrowers to be more careful in their applications for credit. A potential borrower contemplating purchasing some luxury which he would "be better off without," for example, would likely decide not to buy if the appropriateness of such borrowing were questioned.[12/]

12/ See Proceedings of a Conference of the Federal Reserve Board with the Governors of the Federal Reserve Banks, April 10, 1920, Vol. IV, especially pp. 515-516, et passim.

Strong support for direct pressure to influence allocation of member bank credit emerged again in the latter part of the twenties. System officials became concerned as early as the mid-twenties about the flow of credit into the stock market. The growing volume of bank credit being absorbed for speculation in securities confronted System officials with a dilemma. The excessive flow of bank credit into the stock market called for a policy of restraint; a margin of unused resources and declining prices called for a policy of ease.

Actions to curtail the total quantity of bank credit and to make it more expensive in order to curb speculation would have harmful effects on legitimate business. The solution, according to some officials was to use discount policy to prevent member banks from making speculative loans. The Federal Reserve Board, convinced that an increase in the discount rate would not be effective in curbing speculation, sent a letter to the Reserve Banks on February 2, 1929, calling attention to the large volume of speculative loans and to the fact that use of Reserve Bank credit to support such loans is contrary to the spirit of the Federal Reserve Act. For example, the letter stated:

> The Federal reserve act does not, in the opinion of the Federal Reserve Board, contemplate the use of the resources of the Federal reserve banks for the creation or extension of speculative credit. A member bank is not within its reasonable claims for rediscount facilities at its Federal reserve bank when it borrows

> either for the purpose of making speculative loans or for the purpose of maintaining speculative loans.[13/]

The Board also stated that it had no intention of interfering with the loan practices of member banks so long as those practices did not involve the Federal Reserve Banks. But the Board has a responsibility when member banks are maintaining speculative securities loans with the aid of Federal Reserve credit.

From the very beginning, there was strong opposition to the policy of trying to use administration of the discount window as a tool of selective bank credit control. For example, the Governors of the Reserve Banks were unanimous that it was not practical to try to distinguish between essential and nonessential uses of credit in peacetime.[14/] The principal objections to a policy of direct pressure were as follows:

1. It is impossible to determine the specific use a member bank makes of the proceeds of a loan from a Reserve Bank. The loan is to replenish reserves already impaired, usually by a large number of transactions.

2. Even if Reserve Bank credit should be denied to member banks making speculative loans or for other purposes not considered desirable,

13/ See Federal Reserve Bulletin, February, 1929, Vol. 15, p. 94. Another good source of information on pros and cons of direct pressure is Hearings on S.R. 71, "Operation of the National and Federal Reserve Banking Systems," Subcommittee of the Committee on Banking and Currency, United States Senate, 1931, especially the statements of A. C. Miller of the Federal Reserve Board and George L. Harrison, Governor of the Federal Reserve Bank of New York.

14/ See Proceedings of a Conference of the Federal Reserve Board with the Governors of the Federal Reserve Banks, April 8, 1920, Vol. II, pp. 287-290.

reserves created by loans to other member banks may be transferred through ordinary commercial and financial transactions to member banks making such loans.

3. Direct pressure cannot be applied to the large number of banks not borrowing from a Reserve Bank.

4. Direct pressure, at best, is only feasible for preventing excessive borrowing by the individual bank; it is impossible for Reserve Bank officials, in passing on loan applications of member banks, to determine what the total volume of reserves at the disposal of the banking system should be.

5. The Federal Reserve Act does not give either the Federal Reserve Board or a Reserve Bank control over the loan policy of a member bank. A Reserve Bank cannot compel a member bank to make a loan which it does not desire to make nor restrain a member bank from making a loan which it wishes to make.15/

Another aspect of the policy of direct pressure was discussed in the early twenties. There was considerable concern that some member banks might be investing too heavily in bonds and that some of the smaller banks especially were being induced by salesmen to buy bonds of poor quality. One of the questions discussed by the

15/ See Annual Report of the Federal Reserve Board, 1921, pp. 95-96. A good statement of the objections to a discount policy of direct pressure is given in Interpretations of Federal Reserve Policy in the Speeches and Writings of Benjamin Strong, W. Randolph Burgess, editor, New York: Harper & Brothers Publishers, 1930, pp. 126-133; 190-193

Governors was whether, when a member bank comes in to borrow, Reserve Bank officials should go over its statement and try to tell the bank what its investment policy should be; also whether the bank should be advised to sell some of its bonds before the Reserve Bank would lend to it. Although discussed at some length, there was vigorous opposition to advising member banks on their investment policy because it would be undue interference in member bank management. No action was taken toward trying to implement such a policy.16/

A leading academic economist stated that the experiment of attempting to use discount policy to regulate use of bank credit was a failure. It did not result in curtailing the use of bank credit for speculation without affecting its use for business and agricultural purposes. At best, it might have held down total Reserve Bank credit somewhat, with little effect on the allocation of member bank credit among particular uses. In his opinion, a real effort to carry out the doctrine would have required: denying Reserve Bank credit to member banks making loans on the stock market; extending liberal loan privileges at low rates to member banks not making such loans; and open market sales of securities as necessary to mop up any excess reserves created in the process.17/

16/ See Proceedings of the Conference of Governors of the Federal Reserve Banks, October 10-11, 1922, Vol. II, pp. 336-356.

17/ See Charles O. Hardy, "Credit Policies of the Federal Reserve System," Washington, D.C.: The Brookings Institution, 1932, pp. 140-146.

Amendments in early thirties[18]

Additional authority for selective regulation just about coincided with the termination of attempts to use the discount window as a means of influencing final use of bank credit. Legislation in the Great Depression, in addition to giving the Federal Reserve Board authority to fix margin requirements on loans to purchase or carry securities registered on a national exchange (excluding Government securities), also conferred additional powers to regulate member bank loans for speculation in securities. Section 11(m) of the Federal Reserve Act was amended to provide that the Board on an affirmative vote of six members could establish for each district the percentage of each member bank's capital and surplus that could be represented by loans secured by stock and bond collateral, the percentage to be fixed "with a view of preventing the undue use of bank loans for the speculative carrying of securities." Under an amendment of Section 13, if any member bank while indebted to a Reserve Bank and despite warning from a Reserve Bank or the Board of Governors, increases its collateral loans or loans to securities dealers for the purpose of purchasing or carrying securities (other than U.S. Government securities) its note to the Reserve Bank shall be immediately due and payable and the member bank will be ineligible to borrow for a period to be determined by the Board of Governors.

18/ For a complete statement of legislation in the early thirties affecting the discount function, see Howard H. Hackley, "A History of the Lending Functions of the Federal Reserve Banks" (unpublished manuscript), Chapters 8-11.

The financial crisis accompanying the severe depression revealed a serious weakness in trying to tie Reserve Bank credit too closely to narrowly defined eligible commercial paper. Eligibility requirements handicapped the System in meeting member bank needs in two ways. First, some banks did not have enough eligible paper and Government securities to borrow adequate amounts to meet reserve drains, especially if subjected to heavy deposit withdrawals. Second, System open market purchases of Government securities to help check deflation resulted in a reduction in member bank indebtedness and the supply of eligible paper available to be put up as collateral for the issue of Federal Reserve notes. As a result, ability to issue Federal Reserve notes was declining at the same time public demand for currency was soaring. Some of the Reserve Bank Governors became concerned over this situation as early as 1930.

The Federal Reserve Act was amended to remove these handicaps. The Reserve Banks were given authority to lend against any satisfactory asset under rules and regulations prescribed by the Board of Governors but at a penalty rate 1/2 per cent above the discount rate on eligible assets. The Reserve Banks were also given authority for the first time to extend credit directly to individuals, partnerships, and corporations (which included nonmember banks) for a period not to exceed 90 days against Government securities as collateral, under rules and regulations prescribed by the Board. Government securities were also made eligible as collateral for the issue of Federal Reserve notes.

Regulation A was revised effective in October, 1937. The revision was concerned primarily with bringing the regulation into conformity with amendments to the Federal Reserve Act; however, there was a statement of general principles in a preface to the regulation. The general principles may be summarized as follows:

1. The guiding principle underlying discount policy is advancement of the public interest; hence the effect of granting or refusing credit on the member bank, its depositors, and the community is of primary importance.

2. Reserve Banks are expected to consider not only the quality of paper offered for discount, but whether it is in the public interest to put additional funds at the disposal of member banks.

3. Reserve Banks, in accordance with the provisions of the Banking Act of 1933, are to keep informed on the loans and investments of member banks and whether funds are being used for speculative purposes, fixed investment, etc.

4. In determing its discount policy, a Reserve Bank is to take into consideration the general business situation as well as the general conduct and management of the applying bank.[19/]

Allocation Among Banks

Another objective in implementing the discount function, especially in the early twenties, was an appropriate allocation of Reserve Bank credit among member banks. Section 4 of the Federal

19/ See Federal Reserve Bulletin, October, 1937, p. 977.

Reserve Act directed that the affairs of each Reserve Bank shall be administered "fairly and impartially" as among member banks and that each member bank should be extended such discounts and advances "as may be safely and reasonably made with due regard for the claims and demands of other member banks...."

Little use was made of the discount window prior to World War I because most banks had ample reserves, and many banks still preferred to borrow from their correspondents as formerly. During the war, Federal Reserve policy was directed toward facilitating war financing, and member bank borrowing on Government securities rose sharply. Discounts and advances to member banks continued to soar during the postwar boom and then plummeted in the depression. One of the problems confronting System officials after the depression was a substantial number of habitual borrowers.

A study revealed that in mid-1925 nearly 900 member banks had been borrowing steadily for over a year. Over 250 national banks had failed since 1920, and over four-fifths of these banks were habitual borrowers from the Federal Reserve prior to failure. A large number of the habitual borrowing banks still confronted problems that had their origin in the war and early postwar periods.[20/]

20/ See the report on member bank borrowing by Professor O. M. W. Sprague in Proceedings of a Conference of the Federal Reserve Board with the Governors and the Chairmen and Federal Reserve Agents of the Federal Reserve Banks, November 5-7, 1925, pp. 72-86.

Banking policy in contrast to credit policy was directed toward maintaining the sound financial condition of individual member banks. This policy was considered to be the joint responsibility of the discount function and supervisory authorities. Here we are concerned only with the discount function.

One of the problems confronting the System's discount officials was preventing individual member banks from making excessive use of Reserve Bank credit both with respect to what is sound banking policy and the member bank's fair share relative to the needs and demands of other member banks. The discount rate could not be relied on to prevent excessive borrowing, as already mentioned, because a penalty rate was considered impracticable in our type of banking system.

Additional collateral

One device used by several Reserve Banks to prevent excessive borrowing was to require additional collateral.21/ With use of the discount rate immobilized until early 1920 because of Treasury financing requirements, System officials were pressed to seek other methods of trying to deal with excessive borrowing. Some of the Reserve Banks required a margin of collateral, in addition to the usual amount, for member banks borrowing more than they considered appropriate.22/

21/ In the early post-World War I period, additional collateral was frequently required also for purposes of safety.

22/ See Proceedings of the Governors of the Federal Reserve Banks; Proceedings of a Conference of the Federal Reserve Board with the Governors of the Federal Reserve Banks, July 1-2, 1918, March 20-22, 1919, April 7-10, 1920; "Agricultural Inquiry," Joint Commission of Agricultural Inquiry, 1921 (Washington, D.C., 1922), Vol. II, p. 157.

Additional collateral was usually required when a member bank borrowed in excess of a certain amount, such as its capital and surplus, or a basic line computed for each member bank by the Reserve Bank. In extreme cases, one Reserve Bank compelled such member banks to put up extra collateral in order to reduce their holdings of eligible paper and hence their capacity to discount or borrow from the Reserve Bank.

Even though the device apparently was not widely used it aroused criticism. John Skelton Williams, formerly Comptroller of the Currency and *ex officio* member of the Federal Reserve Board, stated that sometimes the large additional margin--as much as 50 or even 100 per cent--made it impractical for country banks to get credit.[23/] Additional margins of collateral of this magnitude, however, were apparently infrequent.

Progressive discount rates

In 1918, the Federal Reserve Board proposed for discussion the establishment of progressive discount rates on brackets of borrowing above a member bank's normal or basic line. The purpose was to prevent some banks from borrowing more than their proportionate share of Reserve Bank credit.

Several objections were raised against the proposal, especially by the Governors of the Reserve Banks, and it was decided that aggressive borrowers could probably be better dealt with by moral suasion. The proposal was made again in 1919. The Federal Reserve

23/ See Agricultural Inquiry, p. 157.

Act was amended in April, 1920, on the recommendation of the Federal Reserve Board, providing authority for the establishment of progressive discount rates.

There were two principal reasons for the request for authority to establish progressive rates. One purpose was to prevent excessive borrowing by relatively few member banks without penalizing those borrowing infrequently and only moderate amounts. A second purpose was to achieve a better allocation of Reserve Bank credit among member banks in accordance with the provisions of the Federal Reserve Act that credit should be extended "with due regard for the claims and demands of other member banks...." In some districts, borrowing was concentrated in a small number of large banks which, in turn, extended credit to their smaller correspondents. Most large banks wanted to continue to serve their correspondents instead of having them borrow directly from the Reserve Bank.

Four Reserve Banks (Kansas City, Dallas, St. Louis, and Atlanta) established progressive discount rates in April and May, 1920. The schedule for the four Banks provided that for each 25 per cent by which a member bank's borrowing from the Reserve Bank exceeded its basic line, a super rate of 1/2 per cent was added to the regular discount rate.

The key part of the plan was establishment of a basic line for each member bank. The consensus of the Governors of the Reserve Banks was that the basic line should represent the member bank's contribution to the lending resources of the Reserve Bank. The latter, it was agreed, consisted of a member bank's reserve deposit and its paid-in capital to the Reserve Bank. The Kansas City, St. Louis, and Atlanta Reserve Banks adopted as a basic line 2-1/2 times a sum equal to 65 per cent of the reserve balance maintained or required to be maintained by the member bank plus its paid-in subscription to the capital stock of the Reserve Bank. The Dallas Bank established as the basic line an amount equal to the combined capital and surplus of each member bank. Advances to member banks collateralled by Government securities were excluded from progressive rates in order not to affect adversely the market prices of Government securities or to work a hardship on those still carrying a large part of the Liberty Bonds acquired on original subscription.[24/]

The experiment with progressive discount rates lasted only a short time. One Reserve Bank terminated progressive rates in the latter part of 1920, and the other three in 1921. Only a small percentage of member banks paid a rate of 10 per cent or more--44 in the Atlanta district, 49 in St. Louis, 114 in Kansas City, and 20 in Dallas.[25/] Great publicity was given to the fact that a member bank in the South paid a discount rate of 87.5 per cent. The bank had experienced a

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24/ For example, see the Annual Report of the Federal Reserve Board, 1920, pp. 58-59.

25/ See Robert F. Wallace, "The Use of the Progressive Discount Rate by the Federal Reserve System," Journal of Political Economy, Vol. 64, February, 1956, p. 61. Good outside sources on progressive discount rates are Wallace, loc. cit., pp. 59-68 and Benjamin Haggott Beckhart, The Discount Policy of the Federal Reserve System (New York: Henry Holt and Company, 1924), pp. 367-377, 405-410.

large outflow of deposits and its reserve balance dropped to $86, drastically reducing its basic line. The 87.5 per cent, of course, applied only to the upper bracket of its total borrowing.

Progressive discount rates resulted in widespread criticism, especially in political circles. It was alleged that progressive rates resulted in member banks charging their customers exorbitant rates; and that progressive rates put great pressure on member banks to reduce their borrowings, which in turn caused the banks to put pressure on their customers to repay their loans. Available evidence, however, did not support the charge that progressive rates resulted in member banks charging excessive rates to their customers. Instead, data revealed that there was no difference in the rates charged by member banks borrowing from the Fed and those not borrowing. In view of the criticism about exorbitant rates, the Atlanta and Kansas City Reserve Banks rebated all interest paid by member banks in excess of a 12 per cent rate.

One of the principal beneficial results claimed for progressive discount rates was a better distribution of Reserve Bank credit among member banks. It discouraged large borrowings by city banks in order to re-lend to smaller correspondents, and resulted in more of these smaller banks borrowing directly from the Reserve Bank.

There was strong opposition to progressive discount rates both within and outside the System. First, member banks experiencing strong seasonal pressures and aggressive banks extending credit to meet the needs of their communities were likely to be penalized.

Second, as applied by the four Reserve Banks, a hardship was imposed on banks in rural areas which were experiencing an outflow of funds as a result of the depression. Reserve drains reduced the basic line and resulted in higher super rates. Third, politicians and demagogues seized upon the relatively few instances of member banks paying unusually high discount rates to critize and ridicule the System. Fourth, a rigid, automatic rule was substituted for discretion in administration of the discount window. Finally, with only four Reserve Banks using progressive rates, banks could evade the penalty by borrowing from a correspondent in a Reserve District that did not have progressive rates.

Some of the weaknesses of the progressive rate experiment in 1920 resulted from the type of plan adopted. The basic line, above which penalty rates were applied, reflected an attempt to relate a member bank's fair share of borrowing to its contribution to the lending resources of the Reserve Bank. This was an erroneous idea and there was no logical reason why a bank borrowing in excess of such a basic line should be required to pay a higher discount rate. Adoption of progressive rates by all Reserve Banks would eliminate the problem of avoidance by borrowing from correspondents in districts without such rates.

But there are serious weaknesses inherent in progressive rates, regardless of how the basic line is computed. Borrowing beyond a certain amount is assumed to be unwarranted and hence should be discouraged by a penalty rate. Progressive rates are applied on the basis of amount without regard to reasons for borrowing. The effect is to discriminate against member banks subject to large reserve drains, regardless of circumstances or how well the banks are managed. A member of the Federal Reserve Board, discussing progressive rates, stated that he hoped few Reserve Banks would resort to "the mechanical and bureaucratic device of that kind in order to control a situation that ought to be controlled through firm, discriminating governing."26/

Progressive rates apparently were not effective in restricting member bank borrowing. One Reserve Bank official stated that member banks were not discouraged so much by progressive rates as by the fear that they might not be able to borrow from a Reserve Bank. The Federal Reserve Board conceded that progressive rates apparently were not as effective as the flat 7 per cent rate adopted by some other Reserve Banks.

Preferential rate

One of the staff papers in the discount study of 1953-1954 dealt with a preferential discount rate on non-continuous borrowing.27/ One basis suggested for the preferential rate was member banks borrowing against Government securities for 15 days or less and which had not borrowed for at least a 15-day period. Other bases for applying a preferential rate to encourage non-continuous borrowing could be used.

26/ Proceedings of a Conference of the Federal Reserve Board with the Governors of the Federal Reserve Banks, April 10, 1920, Vol. IV., p. 523.

27/ William J. Abbott, Jr., "A Preferential Rate on Noncontinuous Member Bank Borrowing," May, 1953.

Some of the advantages that might derive from such a preferential rate were:

1. Penalize the continuous use of Reserve Bank credit and strengthen the sagging tradition against borrowing.

2. The device would have considerable flexibility as the spread between the preferential and the regular discount rate could be varied over time and among Reserve Districts.

3. The preferential rate could be changed without the psychological impact of a change in the regular discount rate.

4. An increase in borrowing at the regular discount rate would be an indication of growing tightness.

5. It would assist in policing the discount window and encourage member banks to maintain greater liquidity.

The proposal had serious disadvantages. It would discriminate against member banks with heavy seasonal loan demands which might have to borrow in several reserve periods even after liquidating securities and making other asset adjustments. In trying to solve one problem it would create another--that of preventing one member bank from borrowing at the preferential rate in order to re-lend to another which could borrow only at the regular discount rate. Finally, the public relations impact of a preferential rate might be harmful. The conclusion was that continuous borrowing could probably be prevented more effectively through discretionary administration of the discount window than by some mechanical device such as a preferential rate.

A similar proposal was made by a member of the Board of

Governors in 1957. He suggested, however, a penalty discount rate for continuous borrowers; for example, banks borrowing for the third or possibly the fifth successive reserve period.[28/]

Appropriate and Inappropriate Use

Even though two major considerations in discount administration in the twenties were influencing the final use of bank credit and a fair allocation of Reserve Bank credit among member banks, appropriate uses in the modern sense of the term were also discussed.

One of the problems was the attitude of member banks toward borrowing from the new central bank. In general, member banks thought of borrowing from a Reserve Bank in the same way as borrowing from a correspondent. The widespread misunderstanding of the discount function among member banks focused attention on educating them as to the proper uses of the discount window.

The procedure followed by most Reserve Banks in administering the discount window varied somewhat according to the borrowing record and condition of the member bank. Well-managed banks borrowing only infrequently were given only a routine investigation--determining eligibility of the paper offered for discount or as collateral, and analysis of readily available data on the bank's condition. Continuous and frequent borrowers, banks borrowing unduly large amounts, and banks with unsound policies or in poor condition were given much more careful scrutiny. Problem borrowers were typically subjected to

28/ See minutes of Federal Open Market Committee, May 7, 1957.

much more careful analysis, such as the character of the bank's loans and its lending policies; behavior of its deposits; its borrowing record from the Reserve Bank; examination reports on its condition; and perhaps discussion with bank examination officials as to the quality of the bank's management. Such internal analysis and investigation were often supplemented by interviews with the borrowing bank's officers or directors.29/

Provisions of the Federal Reserve Act were often referred to for guidance as to appropriate uses of the discount window. In general, member banks should use the discount window for only short terms to meet seasonal, emergency, and other temporary credit needs. With respect to member banks in poor condition, a Reserve Bank should take a reasonable risk to prevent a member bank from failing but it should not make advances on worthless paper or paper that would result in loss.

More attention was devoted apparently to inappropriate uses of the discount window. First, Reserve Bank credit should not be used for either speculative purposes or investments. The Annual Report of

29/ Proceedings of meetings of practically all of the policymaking groups in the twenties contained some discussion of discount policy and administration of the discount window. For example, see the Proceedings of a Conference of the Federal Reserve Board with the Governors, and Chairmen, and Federal Reserve Agents of the Federal Reserve Banks, November 12-16, 1923, especially pp. 102-136, and November 5-7, 1925; Proceedings of a Conference of the Chairmen and Federal Reserve Agents of the Federal Reserve Banks, November 4-10, 1926, especially Vol. III., pp. 503-525; Proceedings of a Conference of Governors of the Federal Reserve Banks, March 22-24, 1926, Vol. I., pp. 43-59, and November 8-10, 1926, Vol. 1., pp. 28-53.

the Federal Reserve Board for 1923 stated:

> It is not a system of credit for either investment or speculative purposes.... The exclusion of the use of Federal reserve credit for speculative and investment purposes and its limitation to agricultural, industrial, or commercial purposes thus clearly indicates the nature of the tests which are appropriate as guides in the extension of Federal Reserve credit.30/

Second, member banks should not borrow to take advantage of a differential between the discount rate and the bank's own lending rates. The Annual Report of the Federal Reserve Board for 1928 stated: "It is a generally recognized principle that reserve bank credit should not be used for profit,...."31/

Third, continuous borrowing from a Reserve Bank was inappropriate for several reasons. It was inconsistent with the spirit of the Federal Reserve Act in two respects: Borrowing should be only for short term; and the principles laid down in Section 4 that the discount window should be administered impartially and with due regard to the claims and demands of other member banks. Continuous borrowing was also unsound banking policy. The Annual Report of the Federal Reserve Board for 1926 stated that continuous borrowing "would not be in accordance with the spirit of the Federal reserve act and would not be fair to the other member banks which may be active competitors of the borrowing bank. It may also impair the ability of the borrowing bank in case of insolvency to meet its obligations to depositors."32/

30/ Page 33.
31/ Page 8.
32/ Page 4.

Discussion at policy meetings revealed three types of continuous borrowers: banks in an over-extended position; those using Federal Reserve credit as a means of enlarging their own operations; and banks borrowing to profit from a differential between the discount rate and their own lending rates.

Other instances of inappropriate discounting or making advances to member banks were cited in System discussions. For example, a Reserve Bank should not discount or make advances to member banks when the effect is to perpetuate unsound policies and poor management. Illustrations of the latter were when 60 per cent of a member bank's assets consist of loans to officers and directors, or when an increase in borrowing from the Reserve Bank is accompanied by a persistent decline in the bank's deposits. In such cases, a Reserve Bank should make advances only when it appears the member bank can be salvaged, and only after a plan is agreed on for eliminating the unsound policies and practices; otherwise, extension of Federal Reserve credit enables some depositors to be paid at the expense of other depositors.

Disuse and Revival

From the Great Depression until the Accord in March, 1951, the discount function fell largely into disuse and problems other than discount policy were of concern to System officials. Discount rate policy also received relatively little consideration.

Restoration of a flexible monetary policy and revival of the discount function focused attention once again on the role of discount policy. A System committee was established in 1953 to make a study of the discount mechanism and its role in the new environment. Several staff studies were made and the committee submitted its report in March, 1954. Regulation A was revised in 1955.

The revision of Regulation A largely reaffirmed the guiding principles for discount policy that had been developed earlier. Appropriate uses of the discount window, stated in the form of general principles in the foreword of the revised regulation, were analyzed in more detail in the staff papers and committee report.

Appropriate uses of the discount window may be summarized as follows:

1. To assist member banks in making very short-term reserve adjustments required by a temporary loss of deposits or impairment of liquidity.

2. To assist member banks in providing short-term and, to a limited extent, seasonal credit to facilitate production and the movement of goods through the productive process from raw material to the ultimate consumer. The foreword to Regulation A states, "seasonal requirements for credit beyond those which can reasonably be met by use of the bank's own resources."

Permitting member banks to use the discount window to meet all of their seasonal reserve needs was considered undesirable because such a policy would probably result in the creation of excess reserves for the banking system as a whole and interfere with appropriate monetary policy. Moreover, such a policy would not contribute to sound banking practice. Member banks should manage their assets so as to be in a position to meet normal or expected seasonal fluctuations.[33/]

3. Borrowing for longer periods is appropriate, according to the foreword to the Regulation, "when necessary in order to assist member banks in meeting unusual situations, such as may result from national, regional, or local difficulties or from exceptional circumstances involving only particular member banks." In other words, borrowing for longer periods may be appropriate to enable member banks to meet situations arising out of adverse economic conditions, money panics, or other economic crises which threaten maintenance of sound banking and credit policies or the public interest.

Inappropriate uses of the discount window include:

1. To help finance speculative activities whether in securities, real estate, or commodities or to enable a member bank to increase its investments (except to assist in the secondary distribution of Government and other securities).

2. Borrowing to take advantage of a rate differential or for tax avoidance.

3. Borrowing for a purpose that is inconsistent with the objectives of sound credit policy or the public interest.

4. Continuous borrowing, in effect using Reserve Bank credit to supplement a bank's own resources.

The committee report offered several objections to continuous borrowing. First, it would convert the discount window from a

33/ See Committee report, March 1954, Appendix D.

source of temporary and emergency assistance to one of semi-permanent investment for a relatively small number of member banks. Second, a small number of banks would probably get an undue proportion of the reserves that should be made available through the discount window consistent with an appropriate monetary policy. Third, large and continuous indebtedness would contribute to an unsound banking practice, create substantial claims prior to that of depositors, and could threaten stability of the banking system. Fourth, a policy of permitting continuous borrowing might result in the injection of more reserves than would be desirable for monetary policy.[34/]

Perhaps it should be pointed out that in the staff studies, the committee report, and revision of Regulation A no sentiment was expressed for using discount policy to influence the final use of bank credit, except that borrowing to support speculative activities and investments was considered inappropriate.

Eliminate Eligibility Requirements

The System Committee on Eligible Paper, in its report of May, 1962, recommended that present eligibility requirements be repealed and that the Reserve Banks be authorized to make advances to member banks on their own note secured to the satisfaction of the Reserve Banks, subject to rules and regulations prescribed by the Board of Governors. The recommendation was approved by System officials, and the Chairman of the Board of Governors in a letter to the Chairmen

34/ Committee report, March, 1954, Appendix D.

of the Senate and House Banking and Currency Committees of August 21, 1963, recommended legislation to achieve these results. A draft of a proposed bill accompanied the letter.

There were several reasons for the recommendation to eliminate present eligibility requirements and broaden access to the discount window. First, drastic changes in the economy since 1914 have resulted in marked changes in commercial bank assets. A marked trend toward loans of longer maturity and an increase in investments in the past three decades have resulted in a substantial decline in the proportion of bank assets eligible for discounting. In the postwar period there has also been a downward trend in bank holdings of Government securities. In view of the basic changes that have occurred, elimination of eligibility requirements is desirable in order that the Reserve Banks, "will always be in a position to perform promptly and efficiently one of their principal responsibilities--the extension of appropriate credit assistance to member banks to enable the latter to meet the legitimate credit needs of the economy."35/

A second important reason for the recommendation is that the narrowly defined eligibility requirements serve no useful purpose. Initially, it was expected that the requirements would result in Reserve Bank credit, including Federal Reserve notes, automatically responding to changing needs of business. Experience soon proved these

35/ Letter to the Chairmen of the Senate and House Banking and Currency Committees by Chairman William McC. Martin, Jr., August 21, 1963.

expectations unjustified. Departures from the principle that Reserve Bank credit should be extended only on the basis of short-term, self-liquidating commercial paper began in 1916 when the Reserve Banks were authorized to make advances up to 15 days on Government securities. As already pointed out, even more significant departures were made in the early thirties.

Inasmuch as present eligibility requirements serve no useful purpose, and at some future time might seriously handicap the Reserve Banks in meeting legitimate member bank reserve needs, the emphasis should be on "soundness of the paper offered as security for advances and the appropriateness of the purposes for which member banks borrow."36/

Discount Rate Policy

A thorough analysis and review of the evolution of academic and System thinking about the discount rate as an integral part of monetary policy is outside the scope of this study. Its focus is directed primarily to the role of the discount rate as a part of the discount mechanism, particularly the aspects of significance for current appraisal of the discount function as a whole. Thus there is no attempt to give a complete chronological evolution of the discount rate's role in monetary policy. Accordingly, this section deals with the broader course of thinking on the function of the discount rate, guides for determining changes in the discount rate, and effects of discount rate changes. The bulk of the material covered deals with the period prior to the Great Depression.

36/ Ibid.

Role of the discount rate

The role of the discount rate depends largely on the reliance monetary authorities put on discount policy and other instruments, such as open market operations and changes in reserve requirements. A widespread belief that frequent borrowing is a sign of weakness and unsound banking policy, a consensus that a penalty discount rate relative to customer loan rates is impractical, a belief that the Reserve Banks should be lenders of last resort, and reliance on open market operations as the principal tool of monetary policy have all tended to relegate the discount rate to a minor role.

There was little in the way of a theory or philosophy of discount rate policy prior to the twenties. System officials had had no experience in central banking, and initially there was a wide range of views on the principles that should be followed in establishing discount rates, some being relevant for a central bank while others reflected thinking more appropriate for a commercial bank. There were two main views: one that the discount rate should be above bank lending rates in order to discourage discounting for a profit, and the other that the discount rate should be low enough to encourage use of the resources of the new Reserve Banks.

Conditions prior to World War I were not favorable to the development of a discount rate philosophy. Lower reserve requirements provided in the Federal Reserve Act and an inflow of gold supplied banks with ample reserves, so that there was little need to borrow or discount at the Reserve Banks. During the war and the postwar period prior to 1920, discount rate policy was directed toward assisting the Treasury in financing the war and the large volume of expenditures which continued into the postwar period.

The marked change in economic environment from pre-war, and the postwar boom and depression emphasized the need for serious study and consideration of the objectives and instruments of Federal Reserve policy. In the first part of the twenties, annual meetings attended by members of the Federal Reserve Board, and the Governors and Chairmen of the Federal Reserve Banks were devoted entirely to Federal Reserve policy. The consensus was that policy should be directed primarily toward maintaining sound credit conditions and business stability.

There was a sharp difference of opinion within the System on the discount function, as already mentioned. Some favored direct pressure to regulate the use of credit; others thought more reliance should be placed on the discount rate. The latter thought the discount rate had several advantages over direct pressure as a means of credit control: it was impersonal and applied to all borrowers alike; it was suitable for regulating the total volume of bank credit, whereas direct pressure was effective only in regulating borrowing of individual banks; and rate changes did affect willingness of individual banks to borrow. It was not necessary for the discount rate to be above bank lending rates to have some restraining influence.[37/]

A modern, forward-looking type of philosophy regarding discount rate policy began to emerge in the early twenties. Discount rate policy should be directed toward mitigating the upward and downward swings of the business cycle. In order to achieve this objective the discount rate should lead market rates on the upswing to prevent or at least mitigage inflation; it should lead market rates on the downswing to prevent liquidation from becoming a straitjacket of deflation. There was no danger that a low discount rate in depression would stimulate borrowing for illegitimate purposes, as some feared. Business firms do not borrow merely because credit is cheap.

This type of discount rate policy was considered consistent with the provision in the Federal Reserve Act that the rate should be established with a view to accommodating commerce and business. The

37/ Some of the better sources of information on the discount rate in the twenties are: Proceedings of a Conference of the Federal Reserve Board with the Governors, and Chairmen and Federal Reserve Agents of the Federal Reserve Banks, October 25-28, 1921, October 10-13, 1922, November 12-16, 1923; Proceedings of a Conference of Chairmen of the Federal Reserve Banks, October 25-29, 1921; Proceedings of a Conference of Governors of the Federal Reserve Banks, November 3-6, 1925; statements of A. C. Miller, Benjamin Strong, and O.M.W. Sprague in Hearings, "Agricultural Inquiry," Joint Commission of Agricultural Inquiry, Washington, D. C., 1921; statements of A. C. Miller and Governor Harrison in Hearings S. 71, "Operation of the National and Federal Reserve Banking Systems," Subcommittee of the Committee on Banking and Currency, U. S. Senate, Washington, D. C., 1931; Benjamin Haggott Beckhart, The Discount Policy of the Federal Reserve System (New York: Henry Holt & Co., 1924), pp. 520-532; Interpretations of Federal Reserve Policy in the Speeches and Writings of Benjamin Strong, edited by W. Randolph Burgess (New York: Harper & Bros. Publishers, 1930).

discount rate should be low in depression: "...you do not accommodate commerce and business by high rates when four million men are out of employment and business is sick for lack of markets and markets are lacking because the world is more or less in commercial chaos."38/ A reduction in rates when business is in a slump can have a considerable effect in accelerating business revival; an increase when business is booming can do much to restrain, if not prevent, inflation. In implementing this type of discount rate policy, however, "Timeliness of action is of the essence of successful Federal reserve action."39/

The role of the discount rate was influenced significantly by two developments which emerged in the twenties. First, open market operations began to be used in the early twenties as an instrument of monetary policy. This diminished reliance on the discount rate and raised the problem of coordinating the two instruments. Second, there was growing support for using Federal Reserve tools to regulate the total quantity of bank credit instead of its quality or use. The shifting emphasis toward regulating quantity instead of quality of bank credit was accompanied by greater reliance on the discount rate and less on discount policy.

Discount rate policy was of relatively little significance during the long period from the mid-thirties until the Accord of March,

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38/ Proceedings of a Conference of the Federal Reserve Board and the Governors and Federal Reserve Agents of the Federal Reserve Banks, October 25-28, 1921, p. 160.

39/ Ibid., p. 156.

1951, for reasons already given. Studies of the discount mechanism in 1953 and the System committee's report in 1954 dealt mainly with discount policy. Consideration of the discount rate was largely in terms of coordination with open market operations.

Discussion of discount rate policy, especially in the twenties, dealt largely with guides and effects of rate changes and coordination of the discount rate with open market operations.

Guides to discount rate action

Prior to the twenties, the reserve ratio was frequently mentioned as a guide for determining changes in the discount rate, but proceedings of policy discussions indicate that it was rarely, if ever, a major reason for a rate change. A much more important consideration was the relation of the discount rate to market rates--usually the market rate on prime commercial paper prior to the Great Depression and the market rate on three-month Treasury bills since World War II. As already mentioned, the penalty rate was generally accepted in principle but was considered impractical in terms of bank lending rates.

There was a consensus that the discount rate should lead market rates up in a period of expansion; a discount rate below market rates would likely encourage speculative activity and borrowing to invest at a profit. Keeping the discount rate generally above market rates in a period of expansion would discourage development of a speculative boom and misuse of the discount window.

There was a difference of opinion as to the proper relationship in a downswing. One school of thought was that the discount rate should lead market rates down in a period of declining business activity. Encouraging a decline in interest rates would relieve some of the pressure for liquidation and help stimulate a revival in business activity. There would be no danger, according to this view, of stimulating speculation and other improper uses of credit. Another school of thought, however, was that on the downswing the discount rate should follow market rates down. The discount rate should not be lowered until an accumulation of funds had brought a decline in market rates. Leading market rates down involved the danger of encouraging speculative borrowing and the lower rate would not stimulate borrowing for productive purposes.

The objective of trying to maintain economic stability and a growing belief that this required regulation of the total quantity of bank credit shifted attention from maintaining a certain relationship to market rates to a much broader range of information. The Federal Reserve Board in its Annual Report for 1923 stated: "Broadly stated, an effective Federal reserve discount rate will be one that gives effective support to a Federal reserve bank's credit and discount policy. The objective in Federal reserve discount policy is the constant exercise of a steadying influence on credit conditions." In deciding whether to change the discount rate, officials should look to the total flow of credit and general business and financial conditions. In 1931, a System official stated that, "if central banking authorities see and have reason to believe in view of the statistics available to them that the total volume of credit of the country is expanding at a rate and volume faster than any normal growth of business could justify, it is incumbent upon the central banking authorities to put pressure or restraint on that growth by an increase in the rediscount rate."40/

Discretion based on a large amount of business and financial information instead of a few guides was needed for sound decisions in making discount rate changes. This view was well stated in the Board's Annual Report for 1923:

> No statistical mechanism alone, however carefully contrived, can furnish an adequate guide to credit administration. Credit is an intensely human institution and as such reflects the moods and impulses of the community--its hopes, its fears, its expectations. The business and credit situation at any particular time is weighted and charged with these invisible factors. They are elusive and can not be fitted into any mechanical formula, but the fact that they are refractory to methods of the statistical laboratory makes them neither nonexistent nor nonimportant. They are factors which must always patiently and skillfully be evaluated as best they may and dealt with in any banking administration that is animated by a desire to secure to the community the results of an efficient credit system. In its ultimate analysis credit administration is not a matter of mechanical rules, but is and must be a matter of judgment--of judgment concerning each specific credit situation at the particular moment of time when it has arisen or is developing.41/

The view that policy actions should be based on informed judgment instead of rules or a few statistical guides still prevails.

Effect of rate changes

The effect of discount rate changes was also the subject of considerable study in the early twenties. Many System officials

40/ Hearings S. 71, "Operations of the National and Federal Reserve Banking Systems," Subcommittee of the Committee on Banking and Currency, U. S. Senate, Washington, D. C., 1931, pp. 67-68.

41/ Annual Report of the Federal Reserve Board, 1923, p. 32.

thought the discount rate had little influence on the volume of member bank borrowing. The principal reason was that it was impractical to keep the discount rate above bank lending rates, with the result that banks could usually employ funds borrowed from a Reserve Bank profitably.

Some officials disagreed. They thought the cost effect of rate changes influenced willingness to obtain additional reserves by borrowing even though the discount rate may be below bank lending rates.

Attempts were made to determine whether changes in the discount rate affected rates banks charged their own customers. Surveys and discussions with bankers indicated there was little effect on the lending rates of smaller banks; however, there was some effect on rates charged by the larger banks in financial centers. Large borrowers with alternative credit sources would often use a reduction in the discount rate as a bargaining point for lower rates. The discount rate also had some effect on loan rates tied more closely to market rates, such as brokers' loans and acceptances.

The effect of the discount rate on the volume of bank credit was another aspect frequently discussed. Linkages between a discount rate change and the volume of bank credit were twofold. First, an increase in the discount rate made borrowed reserves more expensive and caused member banks to scrutinize their loan policies more carefully. Second, the discount rate served as a signal to the public of Federal Reserve policy intentions. An increase in the rate was interpreted as an indication that credit would likely be less readily available as well as more expensive. As a result, business enterprises were less willing to enter into future commitments in anticipation of higher prices or for other reasons.

Academic economists apparently had more confidence in the effectiveness of the discount rate than most System officials. Leading economists thought low discount rates were largely responsible for credit expansion and rising prices following World War I, and that increases in the discount rate in 1920 were a major factor in checking the expansion. They, too, thought an increase in the discount rate caused banks to be more careful about loans and induced some of them to raise their own lending rates. An increase was also interpreted by the public as a signal of more expensive and tighter credit. Some economists disagreed, pointing out that interest cost is only a small part of total costs.[42]

Coordination with open market operations

Open market operations were discovered as a tool of Federal Reserve policy in the early twenties. It was soon recognized that when properly coordinated the two instruments used in combination were more effective than either used singly. For restraint, open market operations could be used to force member banks into the discount window, thus making an increase in the discount rate more effective. A policy of ease would be more effective if lowering the discount rate were

42/ See Beckhart, op. cit., pp. 467-471; Caroline Whitney, Experiments in Credit Control: The Federal Reserve System (New York: Columbia University Press, 1934), pp. 211-217.

combined with open market purchases to supply reserves and reduce member bank indebtedness to the Reserve Banks.

Turner, as a result of his studies in the mid-thirties, concluded that Federal Reserve policy would be more effective if more emphasis were placed on the discount rate and less on open market operations. Open market operations could be used to offset the reserve effect of market factors and to maintain a more stable and continuous volume of borrowing from the Reserve Bank. The latter would provide the basis for more effective use of the discount rate. Adjusting the discount rate relative to market rates on alternative reserve adjustment media would enable the System to effectively encourage or discourage expansion.[43/]

Coordination of the discount rate with open market operations was discussed occasionally in the fifties. There was some difference of opinion as to whether a policy shift should be initiated by open market operations or by a change in the discount rate. Some favored probing with open market operations, pending clearer evidence as to whether a definite move toward restraint or ease would be desirable. Open market operations have less psychological impact than a change in the discount rate and are flexible both as to timing and amount. Such operations could be reversed, if desirable, without the risk of serious psychological repercussions that might accompany a roll-back in the discount rate.

43/ See Turner, op. cit., pp. 145-160.

Others favored discount rate action to initiate a change in policy. Leading with open market operations to implement a restrictive policy would likely result in the discount rate being below market rates much of the time. There would be an inducement for banks to borrow from the Fed instead of adjusting reserve positions in the market and to borrow from the Fed in order to invest the proceeds at a profit. Monetary restraint would be rendered less effective. With the discount rate leading market rates upward, the restrictive effects of open market policy would be reinforced instead of alleviated.[44]

44/ For example, see minutes of the Federal Open Market Committee, August 23, 1955.

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