

FUNDAMENTAL REAPPRAISAL OF THE DISCOUNT MECHANISM

**ACADEMIC VIEWS ON IMPROVING  
THE FEDERAL RESERVE  
DISCOUNT MECHANISM**

Prepared for the Steering Committee for the Fundamental Reappraisal of the  
Discount Mechanism Appointed by  
the Board of Governors of the Federal Reserve System

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

Early in 1966 Professor Lester V. Chandler of Princeton University, Academic Consultant to the Federal Reserve Board, wrote to a number of interested academic economists and asked for their views on improving the Federal Reserve discount mechanism.

Although the answers were varied, all were valuable to the Federal Reserve in its reappraisal of the discount mechanism. As a matter of historical record these replies are now being published, with their contents presented as originally received except for minor editing in some instances prior to publication.

Professor Chandler's request is published first and the responses follow in alphabetical order. For clarification, the numbers of the specific questions raised by Professor Chandler are italicized in the requesting memorandum and the numbers are also italicized when referred to in the replies.

THE FEDERAL RESERVE DISCOUNT MECHANISM AND DISCOUNT POLICIES

The Federal Reserve System has embarked upon a comprehensive study of its discount mechanism and discount policies. A large part of this work is being done by personnel within the System, at the Board of Governors and at the several Federal Reserve banks. However, officials in the System have expressed a strong desire to have the benefit of analysis, criticism, suggestions, and recommendations from outside economists. To this end, they have asked me to serve as part-time consultant during the remainder of this year, with my principal purpose being that of eliciting and transmitting the views of economists.

I know that you have strong professional interests in monetary policy in general and in the Federal Reserve discount mechanism and discount policies. I therefore hope that you will be willing to send me your views for transmission to the Federal Reserve. Unless otherwise instructed, I shall indicate to the Federal Reserve the sources of the views expressed. However, if you so desire, I shall not identify the source.

The Federal Reserve intends that this study be thorough. Among the many questions that will be studied, I would expect that the following, some very broad and others narrower in scope, would be included.

Question 1. What **should** be the role of discount policy in overall monetary policy and its relationship to other policy instruments? In what ways, if at all, should its role be altered?

- Question 2. What role should discounting play as a course of liquidity to individual banks and to banks in a region? Can and should discounting be used to influence the allocation of credit among banks, regions, and types of uses?
- Question 3. What should be the relative roles of ~~the~~ discount rate and other methods of regulating the volume of discounting at the Federal Reserve? What changes, if any, should be made in the existing system?
- Question 4. Whether or not there are changes in the Federal Reserve discount mechanism and discount policy, do you favor any change in the types of assets bought and sold by the Federal Reserve in its open-market operations? What should be the criteria for selecting such assets?
- Question 5. What changes, if any, should be made in the types of assets eligible and acceptable as collateral for discounts and advances by the Federal Reserve? What are the appropriate criteria for determining such eligibility and acceptability?
- Question 6. What should be the criteria for determining how much, how frequently, and how long a bank may borrow from the Federal Reserve?

Question 7. Should the Federal Reserve lend only to member banks, or should it lend to other entities as well? In the latter case, to which types of borrowers?

Question 8. With respect to discount rates and rate policy?

- a. Should these rates be uniform nationally, or should there be regional differences? If the latter, what should be the criteria?
- b. Should rates be uniform on all types of paper offered, or should they differ by types of paper?
- c. Should rates be graduated on the basis of the amount borrowed by a bank or the duration of its borrowings?
- d. What changes, if any, should be made in the method of setting and changing discount rates? For example, should the present methods be continued, should the discount rate be tied to some market rate, should some other formula be used, etc.?
- e. Would it be desirable to seek some way of decreasing "the announcement effects" of discount rate changes? If so, what methods should be used?

f. Should rates be changed more or less often?

By smaller or larger steps?

g. Should the Federal Reserve be empowered to pay

interest on member bank deposits or on reserves

in excess of legal requirements?

The list of questions above is meant to be suggestive rather than exhaustive. You may well wish to raise and comment on other issues. Moreover, it is not expected that you will wish to comment on all the questions.

I shall be very grateful for any comments that you care to make, and I am sure the Board will feel the same.

Lester V. Chandler  
Princeton University



G. L. Bach

Carnegie Institute of Technology

In my judgment, the present Federal Reserve discount mechanism plays a useful role in facilitating the adjustment of reserve positions of individual banks to both market and Federal Reserve policy changes. Federal Reserve discount policy, however, plays a minor role in the total monetary policy mechanism. To improve the effectiveness of discount policy as a part of the total arsenal of Federal Reserve policy, I believe the present system could be substantially improved by relatively minor changes.

The Present Role of Discount Policy

The major implement for executing monetary policy is, and should be, open market operations, which have their direct impact on the reserve positions of commercial banks. The discount mechanism adds a needed element of flexibility so that individual banks can adjust their positions; but higher or lower discount rates, per se, have at most a marginal direct effect on total reserves, the money stock, and interest rates under the present system. The small effect on these targets of changing discount rates could be readily achieved by open market operations.

Some observers praise discount rate changes for their "announcement" effects. But in fact these announcement effects appear to be uncertain and sometimes perverse. Federal Reserve changes in the discount rate are sometimes undertaken to signal

tighter or looser money; sometimes they are merely adjustments to changes which have already taken place in the market--in a sense, attempts to keep the effect of major Federal Reserve policy moves unchanged. But changes in the discount rate are watched with great interest by money market observers and by others in the economy, and are generally interpreted as having great significance as signals of Federal Reserve intentions. Thus, they may easily be misinterpreted.

Indeed, their effect is highly uncertain. If the market has elastic expectations--that is, expects a rise in the discount rate to be a signal of further rises in interest rates--one effect will result. On the other hand, if a rise in the discount rate is interpreted by the market to be a signal that the expansionary process is being pulled to a halt, it would have the opposite effect. I know of no basis on which we can safely assume we know which result will occur when.

Moreover, it is hard to see why such cloudy signals have any advantage over simple use of the English language. The Federal Reserve authorities can readily say what they want to say, and say it so people will understand what they are saying. If, in fact, changes in discount rates are used because they mirror diversity and uncertainty within the Federal Reserve, then this announcement system is even more unsatisfactory, because it gives obviously imperfect signals to a world which pays more attention to them than it should.

Proposed Changes

I favor maintaining the discount mechanism, but changing it in two respects:

1. The discount rate should be, in essence, tied to an important market short-term rate, probably the Treasury bill rate. The discount rate might be changed every week, or at other short intervals, to conform to changes in the bill rate. It should be kept substantially above the bill rate--probably 1/2 to 1 per cent higher--to discourage banks from using discounts as a regular, continuous source of reserves.

2. At this rate, member banks should be free to borrow as they wish on eligible paper. Thus the present dubious, muddy distinction between borrowing as a right and as a privilege should be laid to rest. It doesn't work badly, but under the proposed system it would have no useful role to play.

Basically this system would provide to individual banks needed flexibility in adjusting their reserve positions. Banks would be assured of this adjustment flexibility, thereby eliminating the present nagging uncertainty in the minds of many bankers. However, this system would give banks this flexibility only at a definite penalty over adjustments through the Federal funds market or the sale of bills or other securities. Fundamentally, the Federal Reserve authorities would determine the total reserve base through open market operations, and they could well afford to allow banks the cushion they need to make individual adjustments, since excess borrowing could

readily be offset through open market tightening if this were desirable.

This amended system would mean giving up very little in the way of significant discretionary Federal Reserve power, and it would eliminate a significant source of uncertainty and even perversity in the application of monetary policy. Even with the discount rate tied to the bill rate, the monetary authorities would be free to tighten or loosen significantly. If, for example, the Federal Reserve wished to tighten reserves significantly, in order to halt inflationary pressure or to improve our balance of payments position, open market operations could be used to tighten them; these operations would also raise the bill rate and the discount rate would rise with it. There would be no need to retain separate discretionary power over the discount rate. If special "announcement" effects were desired, Federal Reserve authorities could state what they were doing and why, eliminating the uncertainty and possible perversity of the present approach.

Some additional points deserve brief supplementary mention:

1. How far the discount rate should be above the bill rate (that is, how much the "penalty" should be) is a technical issue. It should be enough to discourage routine borrowing and to lead banks to adjust their individual reserve position under normal conditions through other channels, but should not be significantly higher. An excess of 1/2 to 1 per cent seems probably proper to me, but experimentation might suggest another figure.

2. The definition of eligible paper should be substantially broadened over the present law, whether or not the above suggestions are made. Tying the discount privilege to the old commercial paper concept is badly out of date and could lead to serious trouble in the event of a crisis. Just what paper should be eligible is a technical issue; broadly, U.S. Government securities and all bank paper on which there is minor risk of Federal Reserve loss under normal business conditions should be included.

3. I see no basis for encouraging, or even permitting, regional differentials in discount rates. Differential regional discount rates would represent a throwback to the outdated regionalism of 1913. Moreover, such differentials would represent a dubious direct intervention of a "direct-control" sort by the monetary authorities. If we need to improve our capital markets, differential discount rates are a low-priority way of doing so.

4. A quite different approach to improving the discount mechanism has been suggested by Professor Tobin. Unlike the suggestions above, it would drastically increase the importance of the discount mechanism, making discount rate changes a (or even the) major tool of monetary policy. In essence, the Tobin proposal is:

(a) The Federal Reserve should pay interest at the discount rate on member bank reserve balances above reserve requirements.

(b) Member banks should be permitted to pay interest on demand deposits and time deposits.

Under these changes, the discount rate, which could be directly varied by the Federal Reserve, would in effect set the alternative cost to the banks of holding money as against lending it. Thus, the Federal Reserve would have direct control over lending interest rates, since banks would be willing to lend only when market rates were clearly higher than the no-risk rates available on excess reserves. At the same time, the banks would surely compete for deposits, since they could readily hold those deposits as interest-earning excess reserves as well as use them for lending. Thus, the discount rate would become a major monetary weapon indeed, directly establishing the floor under lending rates.

This approach seems to me a reasonable alternative to the amendments I have suggested above. I am not clear, however, that it would be substantially better than the present system as amended, and I foresee prolonged controversy and uncertainty arising from a proposal to adopt the Tobin plan. Thus, I believe, at least for the present, the modified system outlined above would be more feasible than, and substantially as good as, the Tobin approach. The Tobin plan would become increasingly attractive if future evidence indicates that the impact of monetary policy depends largely on its interest-rate effects, in contrast to changes in credit conditions or the supply of money.

Ernest Bloch  
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Two interrelated problems are embedded in the notion of "excess" use of the discount privilege. The problem faced by each district bank is to police borrowing by the member banks so that none oversteps a limit consistent with the "privilege" principle of discounting.<sup>1/</sup> The problem faced by the System as a whole is to execute monetary policy in the face of cycles of member bank borrowing that may, at times, offset System policy moves. The question arises whether a method can be developed through which district bank policing of member bank discounting can effectively cut the amplitude of undesired discounting cycles. This paper will present, first, a schematic view of discounting cycles under the current discount mechanism, move on to a discussion of suggested remedies, and finally present a proposal that might help to cut swings in discounting.<sup>2/</sup>

1. Problems in administration of discount window.

The current method of controlling the accommodation of member banks combines a "liberal" rate policy with restrictive administration. The cost of credit to all borrowing banks has been

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<sup>1/</sup> Regulation A of the Board of Governors regulates member bank borrowing. The latest revision (Feb. 15, 1955) includes a statement of "General principles" which sets forth some guidelines under which member banks should or should not borrow. (See Federal Reserve Bulletin, January 1955, pp. 8-9).

<sup>2/</sup> On the question of member bank reluctance to borrow from the Federal Reserve, see M.E. Polakoff, "Reluctance Elasticity, Least Cost, and Member-Bank Borrowing: A Suggested Integration," Journal of Finance, Vol. XV (March 1960), pp. 1-18.

held to the level of return on the banks' lowest yielding investments, namely, short-term Government securities. Looked at from a rate point of view alone, the temptation must be great to borrow cheap at the Federal Reserve and relend the funds at higher rates. According to Regulation A, each district bank is supposed to keep a tight administrative check rein on each member bank's borrowing, but the effect of such general and imprecise guidelines had been different degrees of ease or tightness of discount accommodation among the various districts.

Further, as the economy moves toward a boom and loan demand rises, a number of banks that previously did not make use of their borrowing privilege at the Federal Reserve may then approach the discount window. And, in addition, some other banks that had not displayed such reluctance to borrow in recession and recovery may nevertheless be able to point to hardship needs that require central bank credit accommodation. As a consequence, the volume of member bank discounting tends to rise to a peak as business loans and the rate of business activity also approach a cyclical peak. While open market operations may compensate for this "leakage" of credit, the purpose of open market operations may be defeated at the worst time possible; that is, when policy shifts to ease. For at the time of cyclical turning point, the banks may choose to use newly provided reserves to repay loans at the discount window rather than to expand credit.



## 2. Proposed remedies.

Two basic remedies have been put forth to restrain the volume of discounting in a boom, thereby cutting the amplitude of the discounting cycle. Both involve the use of higher rates to hold down the "yield incentive" to borrow at the Federal Reserve. In ascending order of severity, these suggestions are:

- (a) a discount rate "tied" to a market rate, such as Treasury bills, 3/ and
- (b) a penalty rate.

The advantage claimed for the tied-rate method of setting the discount rate is twofold. First, the rate so set would not lag behind prevailing investment yields, thereby keeping the "yield incentive" to borrow from the Federal Reserve at a minimum.<sup>4/</sup> Second, the "announcement effects" and repercussions of discount rate changes could be kept to a minimum. Primarily because of the first advantage, it is claimed that bank borrowing cycles could be moderated.

The penalty rate proposal, on the other hand, would cut the "yield incentive" for borrowing from the Federal Reserve to zero. By eliminating such profits entirely for the most efficient banks, and even creating a net cost for the less efficient (that is, a discount rate higher than yields on their loans and investments), all

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<sup>3/</sup> This proposal is analogous to the Canadian system (1956-62), which sets a discount rate spread over bill rates and allows each week's auction to determine the discount rate level.

<sup>4/</sup> To the extent that the term structure of interest rates changes, this effect may be enhanced or vitiated in unpredictable ways.

banks might become reluctant borrowers, and cycles in discounting might be sharply cut.

It appears likely that the tied-rate proposal will cut into amplitude of discounting cycles only by improved timing. The incremental improvement in timing may not involve a significantly large gain, however, because discount rate levels in the past have been set fairly close to Treasury bill rates. If a tied-rate proposal were to be associated with a spread above Treasury bill yields, it could conceivably reduce the volume of bank borrowing and the amplitude of discounting cycles in the same manner that a penalty rate could. But to the extent that a tied rate is not a true penalty rate, the problem of restrictive administration of the discount window remains.<sup>5/</sup>

A true penalty rate would avoid some of these administrative judgments, but a penalty rate suffers from a number of defects centering on equity of administration. Thus a rate high enough to deter any but emergency borrowing by the most efficient banks would in effect provide a much higher hurdle for the less efficient. And since it is the most efficient or "aggressive" banks that constitute the "hard core" of borrowers from the Federal Reserve, a penalty rate may have perverse effects by penalizing least those that tend to borrow the most. Moreover, the most efficient banks are often also those having access to the cheapest or most readily available substitutes for borrowing from the Federal Reserve. Thus, even if

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<sup>5/</sup> On the subject of administrative rationing of credit at the discount window, see C.R. Whittelsey, "Credit Policy at the Discount Window;" R.V. Roosa, "Credit Policy at the Discount Window: Comment;" and Whittelsey's "Reply", Quarterly Journal of Economics, Vol. LXXIII (May 1959), pp. 207-16 and 333-38.

monetary policy were to make additional credit available to offset the lessened reserve drain through the discount window, the banks with the least costly penalty rate might also be those with the greater share of the incremental credit supply. And to the extent that these banks experience cycles in demand for loans, cycles in discounting would remain.

These factors suggest that a somewhat different approach to setting the discount rate might hold some promise. For the unresolved problem of the rate-setting devices mentioned above is that the same discount rate is charged to all borrowers. Such a procedure offers the greatest possible yield spread to the most aggressive banks, which are the largest and likeliest borrowers, no matter how the rate is set. If instead, the rate-setting device could be tailored to reduce the yield incentive to the same range for each bank, no single group of banks would have a significantly greater rate incentive to borrow from the Federal Reserve than another. In this way, the discount rate could be set high enough to keep down borrowing to the emergency level, thereby serving the purpose of the discount window and reducing administrative problems.

### 3. A modest proposal.

To put a limit on the profits that can be made from borrowings at the Federal Reserve, it is proposed that the discount rate be set by each bank's return per dollar of loans and investments, as indicated in its last call report. This rate of return may be called the profitability ratio; it is, in fact, the equivalent of each bank's

average revenue. The proposal made here, however, applies only to the principle of associating the discount rate with each bank's profitability ratio. Under conditions of easy credit availability at the discount window, for example, the discount rate might be set at, say, one percentage point below each bank's profitability ratio. When discount credit is to be tightened, its cost might be raised to the level, or even above, the profitability ratio.<sup>6/</sup>

In effect, this modest proposal attempts to take into account the fact that commercial banks are at present involved in a progressively more aggressive and profit-oriented management of the cost of sources, and returns on uses, of funds. This fact may be observed in the changing methods of bank reserve adjustments, including, for example, the premium bid on Federal funds, variations in rate/maturity combinations on CD's, and a number of other sharp-pencil devices. If, then, changes in market rates are used by banks to bid away reserves from other banks, why not use appropriate rate changes at the discount window to vary the attractiveness of raising total reserve availability from the Federal Reserve?

Finally, the 1964 amendments voted by Congress into the Securities Act--which mandate the Federal Reserve Board, the FDIC, and the Comptroller of the Currency to advise on and improve standards of member bank accounting and reporting--should also help to provide

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<sup>6/</sup> To that extent, the discount rate could approach each bank's marginal revenue. Recent changes in disclosure requirements already require banks to compute these rates of return (see below).

the data on which the computation of profitability ratios could be based.

Concluding Remarks

It appears that, under the suggested method of setting the discount rate, the System-wide problem of aggregate cycles in discounting and the district-type problem of "excess" borrowing by individual banks can be dealt with more effectively and equitably. Consider the policy problem of the upper cyclical turning point noted earlier. Under the present discount mechanism, the largest, the most aggressive, and the most profitable banks are likely to have the greatest incentive to borrow from the Federal Reserve. Thus, even if the Federal Reserve shifts policy at the upper turning point of a business cycle without any recognition lag and eases credit immediately through open market operations, a significant volume of the easier credit will tend to be used to repay prior discounting. Under the present rules of the game, a high order of administrative skill and willingness to ration credit at the discount window is required not only to prevent excess credit leakages prior to the peak of the boom but, in addition, to minimize perverse pay-backs following the turnaround in economic conditions and policy actions. This is not to argue that the safety-valve aspects of discounting are not useful but that a better mechanism than administrative control might improve the efficiency and equity of the safety-valve function.

At this point the question occurs whether the proposed approach to setting the discount rate would shift discounting from a "privilege" to a "right." The answer would lie entirely in the hands of the Federal Reserve. If the cost of discounting is set above the profitability ratio, banks would clearly be exercising a "right" to borrow (within limits), although that "right" is not likely to be exercised to excess. Conversely, if the cost of borrowing from the Federal Reserve were set below the profitability ratio, the "privilege" could still be controlled by the size of the spread. In any case, each bank could quantify its desire or reluctance to borrow from the Federal Reserve, and the policy signals or announcement effects that the Federal Reserve could transmit would then appear far less equivocal than they do today. This is particularly true in the current environment of sharp-pencil figuring of bank costs and returns, some of which are, themselves, a function of more flexible Federal Reserve policies (for example, the changes in ceilings on time-deposit rates since 1962).

Still, the greatest gain from the suggested method of setting the discount rate would go to the Federal Reserve policy mechanism. For in an environment in which the discount rate may be used as another market mechanism to control overdiscounting in boom, the risk of perverse paybacks following the cyclical turnaround would be reduced. And by the same token, the need for the shortest-possible recognition lag for a reversal of open market operations would also be less. Indeed,

as more experience is gained with setting this new type of discount rate, a sharp rate reduction (in relation to profitability ratio) might be feasible in the period following the boom as a means of preventing undesired paybacks in the aggregate.

Finally, one of the hidden dividends of the new mechanism would be the break in the direct linkage of discount rate to open market rates (for example, on Treasury bills). During recessions, this would permit greater flexibility in setting discount rate levels, even while a relatively high floor were being placed under Treasury bill rates or other interest rates to meet possibly conflicting policy goals set for debt management.

Karl Brunner  
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Allan H. Meltzer  
Carnegie-Mellon University

A separate discount policy is not needed because little can be accomplished by discount policy that cannot be accomplished by other policies, for example, open market operations. A standard argument for discount policy -- that it has an announcement effect -- might at first glance suggest that discount policy plays a separate role by indicating the direction in which the Federal Reserve wishes to change monetary policy. However, qualifications must immediately be introduced. First, changes in the Federal Reserve's discount rate generally follow rather than precede changes in market interest rates, a pattern that does not seem to be entirely consistent with the argument about announcement effect. Second, and more important, if the Federal Reserve does not follow up its "announcement" by operations that support the announcement, the effect of announcing a change is negligible.

Recent experience bears directly on this point. The rise in the discount rate in December 1965 was followed by a substantial increase in monetary base (reserves plus currency) between December and January. In other words, the increase in the discount rate was more than offset by the movement of the base in the following month. Whatever might have been gained by "announcing" a more restrictive policy was offset by the highly expansionary increase in the rate of increase of the monetary base.



One defense of a separate discount policy is implicit in the argument that discounting permits small banks to obtain reserves temporarily on terms that do not differ substantially from the price that large banks must pay for purchases of reserves in the Federal funds market. This argument is based on the view that one of the responsibilities of the Federal Reserve is to maintain the dual banking system and the smaller banks. The inability of small banks to trade in the Federal funds market, it is suggested, should be offset by the Federal Reserve willingness to lend to them on terms that are at least as favorable as those that large banks can obtain in the market or from the Federal Reserve. This position is contingent on how one views the costs of maintaining small banks versus the gains that might be obtained from having a banking system that would distribute its reserves internally without the aid of the central bank.

Our views are summarized in the report that we prepared for the Banking and Currency Committee of the U.S. House of Representatives in 1964. We argued there that a most important question remaining to be resolved is whether the Federal Reserve is going to direct the main thrust of its policy toward full employment, price stability, and other national goals or whether the Federal Reserve will continue to direct the primary thrust of its policy toward the money market. Any judgment that can be made about the future of discount policy must

start from an interpretation of the role that discount policy plays in the range of policy actions. Our view is that the first question that has to be resolved is whether the Federal Reserve is going to continue to be as concerned with money market conditions as it has been in the past. If the Federal Reserve remains attached to "money market conditions" as an indicator of monetary policy, it is unlikely to abandon its traditional position that discounting is a privilege to be used by banks only in case of "need."

There are, therefore, two answers about the role of discount policy. The first is that discount policy should be abolished, the discount window should be closed, and banks should be permitted or required to make their own reserve adjustments. This view has much merit, and our minor objection is that it would increase the cost of longer-term borrowing (up to 6 months) by banks in rural areas at times of local distress, for example, crop failures.

The second answer is that the discount function of the reserve banks should be continued but altered substantially. Our views on this subject are part of a set of prescriptions about the conduct of monetary policy that we will attempt to restate briefly.

If monetary policy takes as its primary interest the maintenance of full employment, stable prices, and so forth, the best way to achieve these goals is to have more consistent direction for policy operations. The direction of monetary policy should be set for longer than a 3-week period and policymakers should ignore

the temporary, random, self-reversing changes in the money market toward which they now devote an inordinate share of their attention. Primary attention should be directed instead toward maintaining a steady growth rate in the monetary base. If this is done, discount policy would have to adapt to the decision about monetary policy made by the Open Market Committee. Our proposal for this adaptation, assuming that discounting is maintained, is that the Manager would be instructed to offset daily borrowing with open market operations on the following day. The Open Market Committee would decide upon the appropriate growth rate of the monetary base for a period of 3 to 6 months. The Manager would be given responsibility for carrying out this policy by buying and selling securities at a relatively steady rate. If banks are permitted to discount, the Manager would subtract the net amount of discounts on the previous day from his open market purchases or add them to his open market sales. Thus he would not permit the volume of discounts to change the growth rate of the base decided upon by the Open Market Committee.

There are a number of advantages that would stem from adopting this proposal. First and foremost, the Open Market Committee would have a clear and definite indicator of the action that the Manager was taking and the extent to which he was deviating from their expressed statement of the direction of policy. Second, the role of the discount window would be reduced to that of a minor supplement to the Federal funds market as a mechanism for distributing

reserves among different types of banks. The Federal Reserve would decide on the volume of reserves and currency that would be available; the banks would decide on the distribution of reserves.

As indicated above, we would not be averse to the elimination of discounting. However, we recognize that this is a radical departure from traditional central banking functions, and that a case can be made for the maintenance of the multiple-bank system on grounds other than economic ones. We believe, however, that policy should be conducted so as to avoid conflict between policies that are aimed at stabilizing the money market and distributing reserves and policies aimed at promoting full employment and price stability.

If our proposal is adopted, the discount rate should be maintained above the Federal funds rate. It should be free to move with the Federal funds rate so that banks would be encouraged whenever possible to make their reserve adjustments through the Federal funds market, the Treasury bill market, or some other market. If the argument for maintaining the discount rate is primarily one of permitting small banks to borrow on terms roughly similar to those of the larger banks, the discount rate should be slightly higher than the Federal funds rate, but not substantially so. Most important of all it should move with the Federal funds rate so that it would reflect the price that banks are paying at any particular time for the use of an additional or incremental volume of reserves.

We attach little importance to the particular types of assets that are used for open market operations. It is useful to choose assets that have well-developed markets, but it is extremely likely that an announcement by the Federal Reserve that it planned to use a particular asset for open market operations would improve the market for that asset substantially.

Hobart C. Carr  
New York University

Preliminary to any discussion of the questions relating to discount rates, administration of discounting, or the role of discount policy, the present use of the privilege must be studied. As you know, Teigen, Smith, Friedman, Meigs, and others have either directly or by implication asserted that if market rates on short-term paper are above the discount rate (in other words, a positive spread) there will be a notable use of discounting; thus such spreads would lead a bank to make frequent and sizable use of the discount privilege just as though there were few or no restrictions on such use imposed by the Federal Reserve. I have always assumed the restrictions to be so stringent as to make such profit-making opportunities very infrequent for the individual bank-- so infrequent, in fact, that they were no real source of profit. I have assumed further that even those opportunities could not be fully used lest the bank find itself unwelcome as a borrower when last-minute outflows were pressing against its reserve position. (By "very infrequent borrowing," I mean borrowing for no more than six reserve periods every 6 months.) I have further assumed, as a corollary to the above assumptions, that a positive spread between short-term market rates and the discount rate would only lead to additional borrowing as more and more banks, brought up to the choice of selling or borrowing by reserve stringencies, are led by such spreads to make use of their

restricted privilege rather than to adhere to their more usual practice of satisfying their reserve needs by other means.

In contrast to others then, I have felt a positive spread contributed very little to use of the borrowing privilege and even less to any increase in borrowing when a restrictive monetary policy continued for any length of time. To determine facts, the Federal Reserve should study its own operations and determine frequency, duration, and amounts of borrowing by individual banks over a period of time long enough to encompass subperiods of both positive and negative spreads.

In the absence of any study, I will assume that I am right and that elasticity of borrowing to a positive spread is slight. My answer to questions on the list will reflect this assumption.

Question 1. There are those who urge that discounting be abolished. They believe that the privilege constitutes a leak in open market policy. Those who defend the practice regard it as a safety valve in the event that open market policy in pursuit of aggregative objectives becomes too restrictive for the individual bank. They also defend it as a means of attracting membership in the System; without this privilege they think membership would be dangerously reduced.

Abstracting from the defense, I incline toward abolition. I agree that the System needs a safety valve, but I argue that one would remain after abolition of the discounting privilege, namely the use of repurchase agreements. If the market indicates too much stringency now,

RP's are resorted to. Why couldn't the same procedure apply in the absence of the discounting privilege? Certainly, the System would then have more control of any "leakages."

The use of RP's under these conditions would require broadening. The System might even need to resume the undertaking of open market operations in Chicago and begin RP operations in San Francisco, but these should constitute no great hardship. Use of the RP "privilege" would also need to be extended--to bank dealers, for example.

I do not think that this proposed use of RP's would have a harmful effect on the Government securities market. Rather, I am inclined to believe that carrying out the proposal would strengthen that market--not merely through the probable expansion in the volume of trading resulting from its greater use by the System and by banks in adjusting their reserve positions, but also through the concomitant extension of market facilities as dealers seek better ways of accommodating their customers.

The proposal would probably be a boost to correspondent banking. Smaller banks, deprived of direct access to the Federal Reserve would turn even more frequently to their correspondents in making reserve position adjustments. Such a development may be viewed by some as a retrogression, but I think it would have a number of advantages: greater efficiency in the use of reserves (through the enhanced ability of larger banks to mobilize excess reserves of smaller institutions);



greater sensitivity to Government securities market developments by more non-money market banks of medium size (through their activities relative to modating their small-bank customers); and as for the adverse effects of this proposal on System membership, might be a serious point. However, they might be diminished if the proposal were modified so as to allow member banks to borrow from the Federal Reserve for emergency purposes, such as a run on the bank. And if, as has been suggested, the Federal Reserve were to pay interest on member bank reserves or excess reserves, the force of this point would be considerably lessened.

As a conclusion, it should be pointed out that abolition of run-of-the-mill discounting would obviate such questions as: what to do about "announcement effects," whether there should be differential discount rates on a geographical or a purpose basis, what assets should be considered "eligible," how to deal with the limitations imposed by pledged assets, what role should be given to discounting as against other monetary policy instruments, whether to install variable rates depending on the amount borrowed, and so on.

Question 2. Assuming the continuation of discounting more or less along the present lines, no differentiation among uses and regions, whether by preferential rates or by other means, should be attempted. In the first place, regional differentiation of rates probably would not work. (Ask the San Francisco Bank for the details of its experience with bank response to lower rates in other districts some years back.) The network

of interbank relationships including Federal funds would lead to a leakage of funds to nonpreferred users or uses. Actually, the fluidity of bank funds would probably break down any other means of preference; for example, a quota system or collateral privileges for certain assets.

Question 3. There have been suggestions that the rate be the sole means of rationing the use of the discount window. Such suggestions appear to be based on a conviction that non-price rationing is distasteful and interferes with the economic process. It would be better, proponents hold, to open up the discount window to all and in any amount.

Again, assuming continuation of the practice of discounting (see the answer to Question 1), this suggestion appears to have considerable merit. It would make the market place--costs of funds there and yields on assets there--the sole criterion of use of the discount window. The Federal Reserve would have a powerful influence over the amounts borrowed and over market rates as it put the discount rate up and down.

Yet such a device raises important problems. For one, relative to which rates in the market would the discount rate be fixed? At various times, certain types of money market paper yield more than others, and yield curves also vary both in height and in shape. If the criterion were to be a fixed type of paper, there would then be arbitrage opportunities. The number of opportunities and their effect would depend on how high the discount rate were fixed. A second problem would then be fixing the level of the discount rate. Presumably the discount rate would be a

penalty rate, at least with respect to some possible rate or asset yields; if not, the discount mechanism would become a freely used source of funds-- the amount of which would be governed by the demand for certain types of credit--rather than a limited access to liquidity funds. If a penalty rate were to be instituted, certain problems would remain. If the base for the penalty were to be the highest possible alternative asset yield, presumably the discount window would only be used when a bank were in such desperate need that the cost of money was secondary. If the base were set at something less, borrowing short and lending long might conceivably be encouraged.

A final problem resulting from this suggestion would be the distribution of banks according to the efficiency of their employment of funds. Some inefficient banks are able to earn less on a given type of asset and on all assets than others. Under these conditions, a penalty rate for one bank might not be a penalty rate for another. Thus borrowing would be a source of funds for efficient banks but not for those less efficient. If efficiency is a function of size, as some data indicate, borrowing for purposes other than desperate needs would be confined to large banks.

As might be concluded from the tenor of the above discussion, I do not recommend replacement of the present system by one relying completely on the discount rate. I would suggest, however, that some way be found for the rate to bear more of the burden of rationing. I shall touch on this **later**.

Question 4. Other than Government securities, the assets purchases and sold ought to be selected on the basis of their importance to the national economic fabric. For example, the reason for continuing operations in the bankers' acceptance market is to demonstrate to the participants that the trade underlying the paper is of sufficient importance for the Federal Reserve to provide a stabilizing force in that market. To me there are two other markets important enough for the Federal Reserve to demonstrate the same kind of interest through nominal activity. They are the municipal bond market and residential mortgage market. The first requires no legislation to make a beginning, merely the determination by the Federal Reserve that State and local government financing is in the same order of importance as bankers' acceptance-financed activity, that restrictive monetary policy affects the municipal bond market extremely, and of course, that open-market operations would provide a continuum to the market. The second is also strongly affected by extremes in cyclical monetary moves, but open-market activity in residential mortgage ought to be undertaken by an agency other than FNMA (and on a different basis), the Federal Reserve is not the agency. If such activity is done at all, it should be undertaken by the Federal Home Loan Bank Board.

Question 5. Again, if the practice of discounting is to be continued, and on the same basis as present, the silly rules now prevailing as to collateral ought to be abandoned. After all, if the

Federal Reserve wishes to give a bank a limited access to Federal Reserve credit, why should the collateral matter so long as it is reasonably sound? And why should a bank be deprived of the credit simply because its Government securities were gone or pledged or its eligible paper exhausted?

Question 6. The criteria for frequency, amount, and length of borrowing from the Federal Reserve ought to be two: size and function. Surely a larger bank has need for greater amounts for brief periods. Size, however, should not be the sole influence upon the amount, frequency, or duration of permissible borrowing--function should enter in too. I refer specifically to the support given by certain banks to the Government securities market, to the bankers' acceptance market, or to any other market for financial instruments in which the Federal Reserve conducts open market operations. After all, if the Federal Reserve depends on the banks to provide important support to the markets--for example, loans to Government securities dealers--instead of performing those functions itself, it should grant recognition to that support?

Question 7. No. It should not lend to nonmembers if it wants to preserve the discount mechanism at all. But this assumes the mechanism is worth preserving.

Question 8. a and b have been dealt with.

c. This suggestion makes sense only if administrative restrictions on the use of discounting are dropped and rationing by

rates alone is adopted. In my view, a scheme by which a bank is allowed to borrow for longer periods, or in larger amounts if a higher rate is apid, is certainly tantamount to a shceme that drops nonprice restrictions. I have already commented on that proposal.

I would like to add to this: The safety valve thesis ( as a reason for existence of the discount mechanism) relates primarily to the provision, on a limited scale, for uncalculable liquidity needs of banks. Why should the larger banks pay more because their needs, under the limitations now imposed on borrowing, are larger?

8 d and e. Under present restrictions, the discount rate sometimes leads changes in market rates--or perhaps stated more accurately, leads open market operations--and sometimes follows such changes. There are often long periods when the discount rate is below rates on 3-month Treasury bills and every other prominent money market instrument. If policy of leading market-rate developments were continued, the "announcement effects" would be maximized; if the discount rate were "tied to some market rate," these effects would be minimized.

I prefer minimizing announcement effects. Reading the meaning of monetary policy and of developments in the economy is a practice in which economic observers will always be engaged, and more or less correct readings are at best difficult. Announcement effects compound the problem of arriving at correct readings and are likely to lead to abrupt swings in expectations. Abrupt swings in expectations in turn are more likely

to compound than to simplify the problems of monetary policy, which must both divine from market behavior the correct policy and influence the market so as to achieve the desired results.

I suggest, therefore, that the discount rate be set in relation to the 3-month Treasury bill rate. It should be set at some penalty with respect to that rate so that use of the privilege costs something in comparison with some assets. On the mechanics of setting the rate, I suggest that the Federal Reserve adopt a procedure similar to that used by the Federal Home Loan Bank System, which is to average the last three debenture issues, add 1/4 of 1 per cent, and round that figure to the nearest 10 (?) basis points.

This answer assumes, of course, the preservation of the discount instrument.

8 f. From the above, my position on frequency of discount rate changes can be deduced. However, I shall state it specifically: Discount rate changes should be made whenever the prescribed formula calls for it.

8 g. Under present circumstances, I do not favor paying interest on either required or excess reserves or total reserves. I do not believe such a step is necessary to hold the present system and membership. I believe the existing membership adequate as a base for monetary policy. Further, I do not believe that the additional resources are needed by the banks. Finally, I believe that either step would unbalance the

correspondent banking system and lead small banks to be even more out of touch with money market conditions.

On the other hand, if such a step were found to be the necessary price for abolition of the discount mechanism, I would favor any version that would accomplish that end.



J. M. Culbertson

University of Wisconsin

This is in response to your request for views for transmittal to the Board of Governors of the Federal Reserve System. Rather than discussing the questions individually, I am limiting myself to several general observations.

I am strongly opposed to any effort to use the discount mechanism as a means of influencing the allocation of credit by region, type of borrower, or type of debt instrument. The paramount task of the Federal Reserve System is management of the nation's monetary system. Its performance in this regard is deficient by the standards I apply. This seems to arise in part from the fact that the System is not quite clear as to just what it is doing, which leads to a tendency to ride off now in one direction and now in another. To add additional functions would only add to the confusion and add to the hazard to the nation's economic stability posed by monetary mismanagement. I am not aware of any demonstration of the need for direct Government involvement in credit allocation beyond innumerable Government credit programs existing, and in the absence of such demonstration--and clear guides to such selective credit control--any move in that direction would be a grave error. In this connection, I oppose Federal Reserve open market operations in assets other than U.S. securities, although a provision permitting acquisition of other assets under emergency conditions (severe market panic) might be worth considering. I also would reject the idea of Federal Reserve lending to other than member banks.

I favor moving toward abolition of discounting as it now exists. I believe that control over the monetary system would be more effectively exercised without such regular borrowing from the Federal Reserve Banks at the option of the borrower. The objectives of general monetary policy can be more effectively achieved by open market operations at the option of the Federal Reserve. The function of discounting as a "safety valve" for individual banks is probably superfluous, so long as the penalties for reserve deficiencies are not too great. The function of discounting as an inducement for banks to be members of the Federal Reserve System may need replacement. So long as discounting is continued, it might be helpful to reduce the disturbing effects of large, discontinuous adjustments in the discount rate, as through some system of automatic setting of the rate in relation to market rates (with provision for Federal Reserve override under unusual conditions).

I would strongly oppose payment of interest on reserves except as a part of some general program of reform. A case perhaps can be made for a combination of increases in reserve requirements and payment of interest on reserves. As a substitute inducement in case of removal of discounting, there might also be something to be said for payment of interest on reserves. In the event that membership in the System is made compulsory -- which I favor -- a case also might be made for payment of interest; I should want to think in detail about any such proposal before being ready to support it.

If the questions are indicative of the direction that the System proposes to head in reform proposals, I am very unsympathetic. As I see it, what the System needs is a rationale for what it does and simplification of its procedures rather than the assumption of new functions for which no clear rationale or justification exists.

William G. Dewald  
Ohio State University

The Federal Reserve should be interested in two interrelated aspects of discounting: first, the cyclical or short-run effect of discounting on the determination of the quantity of money, interest rates, and expenditure; and second, the long-run effect of discounting on the allocation of resources.

It would appear that discounting has sometimes misled the monetary authorities about the effects that variables under their control have on magnitudes that matter. Declines in the demand for borrowings during the contractionary phase of the business cycle may reflect that discount rates--though they have fallen--have declined less than market rates of interest. Thus, borrowings become relatively more expensive, and thereby, other things being equal, monetary policy may have a restrictive effect on the economy.

Let me expand on this point. Using member bank borrowings as an indicator of the expansionary (or contractionary) effects of monetary policy is a source of possible error in the implementation of monetary policy. Borrowings (and free reserves) are, at least partly, determined by the market. Any sought-after effects of discount policy or open market operations have to work their way through changes in bank portfolios to interest rates; but discount policy also affects

desired borrowings (and free reserves). The problem is that many market forces other than those controlled by the Federal Reserve affect borrowings (and free reserves); thus it is generally not correct to conclude that a contraction in borrowings (or increase in free reserves) indicates an expansionary monetary policy or that the opposite changes reflect a contractionary policy.

If market interest rates fall because of a decline in total planned spending, then borrowings would tend to drop and free reserves to rise even without any Federal Reserve policy actions such as changes in the discount rate, Federal Reserve holdings of open market securities, or required reserve ratios. This point seems obvious enough. Nevertheless, a source of possible error occurs when borrowings, free reserves, or market rates of interest are used as indicators of the effects of changes in the tools of monetary policy under circumstances where these variables are simultaneously being affected by both market forces and monetary policy. It is then incorrect to interpret changes in borrowings, free reserves, or interest rates as resulting solely from changes in policy-determined variables. Indeed one possibility is that market factors and policy-controlled factors work in opposite directions on borrowings, free reserves, and interest rates. Thus, borrowings during economic contractions may be less than they otherwise would be because the discount rate has risen relative to market rates of interest. And interest rates during contractions may be higher and therefore less expansionary than otherwise because of slower growth in Federal Reserve

holdings of securities (adjusted for required reserve ratio changes). The opposite movements during economic expansion can be equally misleading. In essence, borrowings, free reserves, and market rates of interest are market-determined magnitudes and as such may be highly misrepresentative indicators of monetary policy.

Despite the fact that it may have been the source of some destabilizing monetary policy in the past, monetary policy would not necessarily be more efficient if member bank discounting were eliminated. All that is required is that the monetary authorities assess the effect of the variables they can control on the variables they wish to affect, other things equal. Thus, if an expansionary policy is wanted, the authorities would have to make sure--by reducing discount rates, increasing Federal Reserve securities holdings, or reducing required reserve ratios--that borrowings fell less than they otherwise would, that free reserves increased more than they otherwise would, and that interest rates decreased more than they otherwise would. "Ceteris paribus" historically has gotten economists into trouble in many ways. In my judgment the interpretation of market-determined indicators of monetary policy is an example. Thus, to study member bank borrowing, the Federal Reserve and others should study all of the variables upon which discounting depends and in particular the role that discounting may play in transmitting the effects of changes in policy-controlled variables on policy objectives.

The second major consideration in studying member bank borrowing relates to its effects on long-run economic efficiency. In large part the discount mechanism is ill suited to affect differentially credit allocation from what would otherwise occur in the money market. If demands for credit are high in California (or in industry X) relative to the rest of the country, higher rates there could be expected to draw capital to California (or to industry X). Manipulating discount rates or discount administration between Federal Reserve districts (or types of collateral) likely could not effectively alter this flow of credit, at least not without a cost in efficiency. However, the question is an empirical one and should be investigated carefully. My judgment is based on the fact that transactions costs in Federal funds and Government securities markets are so small that I am willing to guess that any attempt to keep the discount rate higher in one region than others would be almost altogether offset by interregional portfolio adjustments. In essence banks in the low discount-rate areas would borrow more and hold more securities, while the opposite would be true in relatively low discount-rate areas. Thus, efforts to change interest rates inter-regionally or otherwise by discount policy would tend to be offset by an outflow of funds from areas with relatively low discount rates.

Question 1. Only open market operations are really essential to monetary policy. Nevertheless, changes in discount rates also affect the supply of money and interest rates; and it would be worthwhile to learn more than is known about the magnitude of the effects. If the discount

rate is one of several tools of monetary policy, then the best mixture of policy tools requires knowledge about each and the way they work interdependently. For example, high discount rates and low required reserve ratios might be expected to reduce both borrowings and the responsiveness of borrowings to changes in credit market conditions or interest rates. This effect on the responsiveness of borrowings depends on the presumption that desired excess reserves would increase with an increase in the discount rate or a decrease in required reserve ratios. Banks would have less need to borrow in response to financial disturbances. Hence, a given Federal Reserve open market purchase (or sale) would cause a lesser feedback effect of reduced (increased) borrowings. It would probably be a useful alteration if the relationship of the discount rate to market rates of interest were stabilized; for example, by automatically fixing the discount rate at a margin above the Treasury bill rate. This policy would avoid one source of change in the responsiveness of money and interest rates to open market operations.

Question 2. In general, it would appear to be wrong for the Federal Reserve to try to influence the allocation of credit through discount policy. Bargain discount rates would be a subsidy to banks. Assuming the public really supports the subsidy, the recipient would generally be better off with a direct payment of money than with a change in the prices he faces. Despite this fact discounting might conceivably play some marginal role in improving the allocation of resources in a country with many small banks. If the costs to society of providing



loans to banks are less than costs to banks of alternately buying and selling securities, then banks facing losses of deposits could adjust their portfolios without liquidating their assets. Of course, the resultant increase in total bank reserves should appropriately be offset by open market operations. Payment of interest on excess reserves, as well as lengthened and staggered reserve settlement periods, could have a similar effect in reducing the burden of reversible portfolio adjustments.

Question 3. Unless a case can be made for the imperfectness of the money market and the possibility of this being offset by the rationing of loans to banks, discount administration is a bad way to control the volume of discounting. It is bad over the business cycle for it may change the responsiveness of money and interest rates to other monetary policy tools and make more difficult the prediction of effects of policy actions. It is bad with respect to the allocation of credit because it may lead to discounting at different terms in different regions or on different classes of collateral. Discount administration is necessary but simply to insure that the borrower can repay his loan with reasonable likelihood. The discount rate must be high enough to prevent unwarranted expansion of bank reserves and the supply of money, even though some banks might find it profitable to borrow more or less continuously from the Federal Reserve.

Question 4. The Federal Reserve should be free to buy, sell, and issue Government securities of all maturities. Privately issued securities, including bankers' acceptances, should not be purchased if the market is efficient enough to direct credit allocation without interference by the Federal Reserve. The Federal Reserve should take responsibility for managing the Federal debt by conducting its open market operations (and new issues of securities if authorized) to cause the average maturity of the Federal debt to rise during periods of threatening inflation and to fall during periods of recession. The principal advantage of assigning this responsibility to the Federal Reserve is that it could easily make small sequential adjustments in outstanding maturities through the established open market mechanism.

Edward E. Edwards  
Indiana University

Question 1.

Except for the fact that we have a unit banking system, I would argue (1) that there should be no discount window or (2) that discount policy should be completely independent of monetary policy. Open market operations, assuming the existence of a Federal funds market and a bond market, would be the only tool needed to implement monetary policy. If discounts were permitted, the rate should be at market rate or higher, and the Open Market Committee should adjust its net purchases or sales to a changing volume of discounts in the same way that it adjusts to changing volume of currency in circulation, or changing float, or changing Treasury deposit balances. Of course, market rates would be affected by monetary policy, and this would -- or should -- affect the discount rate, but it would be an incidental effect.

But we have a unit system, and in such a system there may be a proper role for the discount window as a tool of monetary policy. For example, monetary policy might well be concerned with who the recipients are when reserves are injected into the system; who is squeezed the most under restrictive monetary policies. I assume money flows quickly and freely between New York and Chicago and other financial centers. I am less certain as to how freely funds flow into and out of -- but especially into -- smaller communities. Thus I believe that a good case can be made not only for keeping the discount window open but also for encouraging its use.

Here I am arguing for the discount window solely as a means of compensating for impediments to the flow of funds through geographic regions and among banks of different competitive strength, impediments that would not exist in a nationwide branch system. I do not argue that monetary policy should be concerned with the ultimate recipient of bank credit or its use. However, it should be rather obvious that a conversation at the discount window about the undesirability of certain types of loans or borrowers might be more effective than a public speech on the subject by a member of the Board of Governors.<sup>1/</sup>

My doubts as to the free flow of funds in a unit banking system center chiefly in the ability of small banks, and especially those in smaller cities and towns, to reverse or even to halt the flow of funds out of their communities in periods of strong demand for funds in money centers. Such a drain is more important when some local communities are suffering a loss of funds because of locally adverse business conditions or lack of confidence in local

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<sup>1/</sup> In the light of 1966 experience, I would also argue that it would be better when money is tight for large banks to obtain funds at the discount window, with the Federal Reserve selling a comparable amount of Treasury bills, than for the banks to sell CD's in the open market. Why? Bankers would exercise a bit more restraint, perhaps, but the main reason would be to prevent the highly damaging competition among all financial intermediaries. No one cares what the banks pay the Federal Reserve for money, but when they advertise maximum rates on CD's, every financial institution in the nation is affected.

institutions. I do not believe we should allow unit banks to fail because of lack of liquidity -- and more on that later -- and I do not believe we should settle for less from monetary policy than might be achieved solely through open market operations if we had nationwide branching.<sup>2/</sup>

As a final observation, I should think that discount policy might bear some relationship to the volume of required reserves and Federal Reserve notes outstanding on the one hand and the volume of marketable Government obligations on the other. Reserve Bank liabilities must be matched with assets of some description. For the Reserve Banks to acquire more and more Government obligations interferes with the free market in Government securities and may also be depriving the private sector of its most desirable liquid asset. Thus gradual substitution of discounts and advances for Government securities on the asset side may be desirable -- unless, of course, investment powers are broadened, reserve requirements are reduced or eliminated, or Treasury currency substituted for Federal Reserve notes.

Question 2.

As argued above, in a unit banking system discounting can and should be used to compensate in part for the many

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<sup>2/</sup> Some economists are opposed to discounting because it encourages the survival of unit banking, whereas branch banking would be better. The Board of Governors cannot accept that argument, since it is not its responsibility to determine what kind of system we should have, but rather to make the system we have work effectively.

impediments to the free flow of funds among banks and between regions and communities. Discounting will probably also influence types of uses of credit. However, this does not mean that the Federal Reserve should become a bank for development or redevelopment. Its concern should be with its member banks, that they are not discriminated against unfairly by the impact of monetary policies carried out primarily by open market operations and that they in fact do have access to the bank of last resort.

Discounting in its role as a source of liquidity is probably the most important reason why discounting should be a major feature of Federal Reserve policy. Unless unit banks can absolutely depend on their central bank as a source of funds in the event of deposit drains or unusual loan demand, they must each maintain a strong liquidity position. Doing this deprives the local communities of the full use and benefit of the savings the communities generate. It also shifts the supply of funds into the large money markets, which in general, and especially with a unit banking system, have limited ability to move funds back into local communities.

[Limited ability may not be the best choice of words here. For example, money market funds can easily be put into the hands of nationwide finance companies and could easily be channeled back to local savings and loan associations through the Federal Home Loan Bank System. Also, money market funds may get back to large borrowers through participations, with big banks taking the excess over legal limits of the small banks. What I have in mind is the lack

of any flow of funds back to the smaller bank in any way comparable to what would be possible with a branch system. While theoretically a small bank from a small community might compete in the money markets with negotiable certificates of deposit, as a practical matter CD's move money in only one direction, namely, to the big banks in the big money markets.]

Under a nationwide branch banking system, a branch in a capital-short community can lend not only 100 per cent of its deposits but also quite a bit in excess of that amount. I doubt if the Federal Reserve should go as far as would the home office of a nationwide commercial bank in this direction, but I do believe that the Federal Reserve could contribute to economic growth and stability by permitting those banks with greatest local needs for funds to lend a higher percentage of their deposits than would be possible without the assured availability of discounting. Note that I am not arguing that discounts be used as a permanent source of loanable funds, but only that banks be permitted -- and encouraged -- to count on their Federal Reserve Bank for some part of their liquidity.

The continued trend among many of our banks toward becoming savings institutions emphasizes the need for discounting as a source of liquidity. Experience shows that savings deposits need to be fully invested in order for savers to have a fair return and in order for the savings institutions to maintain an adequate capital

base. Experience also shows that savings institutions in most communities must emphasize local loans and investments in order to compete successfully for savings. Local loans and investments, despite their quality, have little liquidity or shift ability. Thus member banks with a large proportion of savings deposits face an almost impossible dilemma unless they can absolutely depend on Federal Reserve credit to keep them in business during a period of savings deposit drain or unusually strong demand for loans. Since such a period might last for several months or longer, fairly continuous or long-term borrowing by some banks or by most or all banks in some regions should not be considered too unusual.

Whether banks as a normal practice borrowed continuously and invested the funds in highly liquid assets, or held few liquid assets but did no borrowing except in emergencies, would seem to make little difference if the bankers knew they could borrow when the need arose. I would prefer to have most banks using the discount window frequently, with many banks borrowing at any given time. This would not affect the amount of Federal Reserve credit, since changes in the volume of advances could easily be offset by open market operations. But it would demonstrate that the Federal Reserve is willing to provide at least some of the liquidity needed by a unit banking system.

Before leaving this point, I would suggest that if Federal Reserve Banks are not going to meet liquidity needs of



their member banks, then we should provide for membership of commercial banks in the Federal Home Loan Bank System, or set up some new reserve credit institution to give unit banks a borrowing route to the money and capital markets. Unless member banks can depend on discounting, their only route to the market is by selling money market assets. This limitation either threatens their existence in case they do not maintain adequate liquidity or prevents them from serving their local communities as fully as they should.

I would further suggest that the development of discounting will do more than any program other than compulsion to make member banks of the thousands of banks now outside the System. The record of membership is adequate argument that our central bank doesn't do much for most of our banks. I once made myself unpopular in certain quarters by stating that the Federal Reserve Banks did not do as much for their savings-minded members as the Federal Home Loan Banks do for theirs. Since the statement was true, I reaffirm it.<sup>3/</sup>

Question 3.

If the volume of discounting has to be regulated, the proper tool would seem to be the discount rate. But it is foolish to talk about regulating volume through price in a market as

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<sup>3/</sup> The 1966 experience suggests that the Federal Home Loan Banks sometimes fail to do as much as they should, and could, for their members.

artificial as the present discount market. Unless and until the Federal Reserve is willing to consider discounting as a proper use of Federal Reserve credit on the one hand and a proper source of funds for member banks on the other, the discount rate will continue to be a bit of central banking folklore.

Two major changes should be made. First, the Federal Reserve should consider discounting as a proper activity, not to be discouraged by the preservation or encouragement of "taboos" against discounting. Second, the several banks, with approval of the Board of Governors, should keep the discount rate as close as possible to market rates for money -- even slightly on the low side in periods of tight money -- thus encouraging members to discount. As a result of the two changes, some banks, somewhere, even when money is easy, would be borrowing because the imperfections in the money markets and in the unit banking system forced them to rely on this source of liquidity. And when banks generally are faced with strong demands for funds, most banks would be discounting, at least part of the time.

Why would this be better? For only one reason: it would be more compatible with the unit banking system the Federal Reserve is supposed to serve and protect.

Question 4.

With a change in policy that would result in a much larger volume of discounts and a smaller holding of Government securities, I would see no reason for any change in assets bought and sold.

Without the change, then I believe some broadening of investment powers might be desirable. I would suggest as a starter the short-term obligations of Federal agencies, especially those of the Federal Home Loan Banks. However, a better approach to solving the Federal Reserve's asset problem might be to reduce the need for assets by the elimination of reserve requirements on savings deposits.<sup>4/</sup>

Question 5.

The only test I would suggest for borrowing by member banks would be creditworthiness of the borrower plus an appropriate use for the funds, and the better the credit the less I would worry about the use. In general, I would favor unsecured advances rather than discounts or collateral loans. Secured lending by the Federal Reserve makes no sense. If the borrowing member does not fail, the collateral is unnecessary. If the borrowing member fails, foreclosure on the collateral merely increases the loss that must be borne by someone who was less able than the Federal Reserve to know the direction the bank was heading. I think the Reserve Banks are fully able to take their share of any losses from failed banks.

To try to define or establish rules of eligibility and acceptability for collateral can only lead to trouble; the worst kind of trouble is the failure of the bank of last resort to perform

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<sup>4/</sup> The elimination of reserve requirements on savings deposits would make membership more attractive and would in no way interfere with monetary policy.

its function when most needed. Central bankers should be concerned with their members' need for funds and their potential for repaying. Setting up rules of eligibility of paper diverts attention away from the main issue, sets up artificial barriers to performance, and gives central bankers excuses not to do what they are supposed to do.

Question 6.

Each Federal Reserve Bank should establish its own criteria, with the Board of Governors or Open Market Committee limiting its concern to the total amount of credit extended and perhaps the rate charged.

Question 7.

If a loan to a nonmember bank would keep it from failing or enable it to serve better the borrowing needs of its community, then I should think a Federal Reserve Bank would want to, should be able to, and should make the loan. As a face-saving device, possibly such credits should not extend beyond some time period, perhaps 6 months, unless the borrower applied for membership.<sup>5/</sup>

Question 8a.

I see no reason for insisting on absolute uniformity, but I should think reasonable uniformity would be necessary if member banks kept the discount window open.

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<sup>5/</sup> This would be largely a theoretical question if the Federal Reserve made membership more attractive, which it easily could do by a greater reliance on the discount window for injecting Federal Reserve credit and by reducing reserve requirements.

8b.

The rates might be different for different purposes or different maturities

8c.

Possibly, but I would leave rate differentials to the 12 Reserve Banks.

8d.

If the Federal Reserve considered discounting as a proper medium for Federal Reserve credit, the rate question likely will be solved by market forces, and the present excessive attention to the discount rate would quickly evaporate. From the standpoint of monetary policy, the important variable would be how much credit has a Reserve Bank extended, not how much it charged. Very likely some new types of controls or restraints over the 12 Reserve Banks might need to be developed, but these should be aimed primarily at regulating the amount of reserve credit extended and possibly the distribution, such as between bonds and discounts and advances.

8e.

Yes. No comment on methods.

8f.

No comment.

8g.

Almost 30 years ago I suggested that the Federal Reserve pay interest on excess reserves, for what I thought then was a good reason. Too many bankers were too much concerned with their

Government bond portfolio, when they should have been calling on farmers, automobile dealers, homebuilders, and other loan prospects. Whether the same thing holds true today I doubt, but paying interest on excess reserves at the Federal Reserve's earning rate would be fair and would save thousands of bankers a lot of useless time and effort now spent in avoiding any excess reserves, yet meeting legal reserve requirements.

Many years later I suggested that "Uncle Sam should take his hand out of the till," referring to what seemed to me to be excessive legal reserve requirements. Since then reserve requirements have been lowered, but they are still higher than necessary. I would rather see them lowered and eliminated altogether on savings deposits rather than have the Federal Reserve pay interest on required reserves.

Milton Friedman  
University of Chicago

I have made a systematic analysis of discounting in my little book, A Program for Monetary Stability. Any answers that I might give to your questions now would be more offhand and less satisfactory than that statement. I have seen no reason to revise my basic position since that statement. The material relevant to your inquiry is concentrated on pages 35-45, 52-65, and 71-76.

Dudley G. Lockett

Iowa State University

1. Discount mechanism. I have no analytical comments to make with respect to the discount mechanism. My opinion is that the mechanism per se is a very useful adjunct to the banking system. Its value lies in the fact that each bank that applies for an advance may be treated as an individual case and judged on its own merits. Thus when local conditions warrant (for example, a crop failure in an agricultural community), the Federal Reserve is able to make temporary accommodation to a member bank until more fundamental adjustments can be taken.

The fact that funds lent to a specific bank for a specific purpose constitute a net addition to total bank reserves should not obscure the essential soundness of the discounting procedure. It is of course true that Federal Reserve discounts and advances rise during a tight money period; but this is in no way surprising. Banks are, after all, almost by definition relatively illiquid during tight money periods, so that random events which in easier times would not affect them may prove quite disturbing. Extending the reserve base through the discount window, a process which can easily be offset through open market operations, seems to me a small price to pay for the greater stability insinuated into the banking system through the discount window.



2. Discount policy. There are three possible ways to deal with discount policy: (a) abolish it; (b) leave it as it is; (c) make it into a more powerful and distinctive tool of monetary policy.

(a) Abolishing discount policy could be accomplished either by doing away with the discount mechanism entirely [Friedman], or by posting the discount rate some fixed percentage above the Treasury bill rate each week [Smith]. As I pointed out above, I do not see any useful purpose to be served by abolishing the discounting mechanism. Warren Smith's proposal, however, seems to me to have considerable merit. I seriously doubt that discount policy is able to accomplish any objective of monetary policy which cannot more easily be achieved through open market operations. At the same time, discount policy has disadvantages of which the "announcement effect" is perhaps the most serious. The recent controversy between the administration and Chairman Martin over the rise in the discount rate is a case in point. The controversy was focused on the essentially minor question of the proper level for the discount rate rather than on the major question of the appropriate tightness of monetary policy. Moreover, as nearly as I can judge [it is sometimes difficult to tell from Iowa] the Federal Reserve was forced into

an early rise in the discount rate by considerations of Treasury financing -- a wholly irrelevant issue.

- (b) I dislike the present system of discount policy largely for the reasons noted in (a) above. It is perhaps worth a single additional comment to remark that the present system leaves discount policy and the discount mechanism hopelessly intertwined. The present system is based on a theory of commercial and central banking which probably never had a real-world counterpart and in any case has certainly not had one for the last 30 years.
- (c) There is a third proposal, associated with the name of James Tobin, which suggests, first, that banks be permitted to pay interest on demand deposits, and second, that the Federal Reserve pay a rate of interest on excess member bank reserves. The presumed advantage of such a proposal is that it would give the Federal Reserve a more direct influence over the customer loan rates of commercial banks by giving the Federal Reserve direct control over the opportunity cost of the banks' funds. I confess I fail to see much merit in this proposal.
- In the first place, the opportunity cost of idle bank funds is currently the Treasury bill rate -- and this rate is very strongly influenced by Federal Reserve policy. The additional control over bank loan rates gained by the Federal Reserve

under the Tobin proposal would, it seems to me, be highly marginal.

On an operating level, there are three possibilities:

First, a low rate on excess reserves and a high rate on Treasury bills. This is essentially the way the system now works (the rate on excess reserves is zero), and so presumably this is not what is being proposed. Second, a high rate on excess reserves and a low rate on Treasury bills. This possibility would shift banks out of the bill market and into excess reserves as a source of secondary reserves. This shift in turn would result in the loss of a major market for the public debt and give the banks a windfall gain not open to other asset holders. In my opinion this would not have any advantage.

The third possibility is that the Treasury bill rate and the rate paid on excess reserves would move roughly in tandem. If so, then the ability to set the rate on excess reserves is not an independent policy instrument but rather an appendage of the open market operations. Moreover, as noted above, since the opportunity cost of holding excess reserves is in any case the bill rate, it is by no means clear in what way this option would enhance the effectiveness of monetary policy.

I should think that the benefit to be derived from the proposal to pay interest on demand deposits (a greater

stability of velocity) would occur even in the absence of a rate paid on excess reserves. Permitting banks to pay a rate of interest on demand deposits has much to recommend it in other respects also--notably the added competitiveness which would result among commercial banks. I would add that a necessary pre-condition for repealing this law should be the extension of deposit insurance to 100 per cent of all deposits, so that depositors are fully protected against bad bank management.

Thomas Mayer

University of California at Davis

I believe that the discount mechanism should be revised substantially. In its essentials it has been changed little since the early days of the Federal Reserve. Yet conditions have changed fundamentally in three ways. First, the "real bills" doctrine has been abandoned; second, open market operations have been developed as the main tool of monetary policy; and third, there now exists a combination of Government security holdings as a first line of defense and the FDIC as a final line of defense to guard the banking system from panics. As a result the discount mechanism has lost most of its function.

One function it has definitely lost is controlling the quality of credit. This has been recognized in part by the revision of Regulation A. But it is doubtful that this revision goes far enough. Is any purpose served by requiring a particular type of collateral in support of the bank's loan application? Insofar as the purpose of the collateral is to protect the Federal Reserve in case the borrowing bank fails, why is this collateral limited to Government securities and eligible paper? Surely, if the only purpose is to protect the Federal Reserve, any sound asset should be acceptable as collateral. One might go further and ask if the Federal Reserve should be protected by collateral at all. If a bank does fail, the burden is carried by another Government agency,

the FDIC. Admittedly, there is a case, though perhaps not an overwhelming one, for protecting the Federal Reserve and letting the FDIC carry the whole cost of bank failures; namely, that FDIC losses show up in FDIC insurance assessments. In effect, banks insure each other. But, if the whole purpose of collateral is to ensure that the ultimate burden of bank failure rests with the banking system rather than with the Federal Reserve, this purpose could be accomplished simply by having Federal Reserve loans to banks covered by FDIC insurance. If the insurance system were extended in this manner, no collateral at all would be needed.

The second function of the discount mechanism is to allow the Federal Reserve, by changing the discount rate, to change the reserve base. Nowadays, this can be done much more efficiently by open market operations through which the Federal Reserve is able to change bank reserves by the exact amount it desires. Admittedly, changing the discount rate has a much greater announcement effect than open market operations, but the announcement effect is likely to be more of a nuisance than a help. <sup>1/</sup>

This leaves only one of the original purposes of discounting--the provision of reserves for specific member banks short of reserves. Although, as pointed out above, this purpose is by no

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<sup>1/</sup> On this issue I find quite convincing the arguments given by Warren Smith in "The Instruments of General Monetary Control," The National Banking Review, September 1963, pp. 47-67.

means so important now as it was earlier, it has not completely disappeared. Particular banks might prefer discounting to selling off Government securities or borrowing Federal funds, particularly if they could discount without having to use their dwindling stock of unpledged Government securities. The discounting privilege is probably a major inducement for membership in the Federal Reserve System.

I would therefore advocate keeping the discount window open rather than abolishing discounting altogether. But in order to get rid of the announcement effect, I would like to see the discount rate pegged to the Treasury bill rate. I am not sure exactly what the proper relationship of these two rates should be. To prevent excessive use of the discount window, it may be necessary to keep the discount rate above--rather than equal to--the bill rate. However, I am not sure that the quarter of a per cent differential used by the Canadians is the right one. One-eighth of a per cent, or even a smaller differential, might suffice in view of the reluctance of banks to borrow. One of the relevant criteria for choosing the differential is the desired incentive for Federal Reserve membership. (Since this consideration does not apply in Canada, the quarter of a per cent might be too great a differential for the United States.) Whatever differential is chosen--as long as it is significantly different from zero--would allow the Federal Reserve to operate the discount window without controlling the amount and

frequency of bank borrowing, apart from exceptional cases, which in any event might be handled better by means of bank examination.

This answers all the questions except numbers 4 and 7 and parts of questions 2 and 8. Question 2 asks, in part, whether discounting should be used to influence the allocation of credit. I would oppose this for two reasons. First, it is an excessive interference with a free market, an interference that ideally could improve resource allocation, but that in practice, as a result of political pressures, is likely to worsen resource allocation. Second, if we do want to use monetary policy to influence the allocation of credit by region or by use, there are probably other ways of doing it more efficiently than by the discount mechanism.

Question 8a raises a very interesting issue. I am not sure that the traditional answer--namely that small differences in discount rates set off disturbing capital flows--is necessarily correct. Why should these capital movements necessarily be disturbing rather than equilibrating? Moreover, even if they are disturbing under the present arrangement, would they necessarily be disturbing if the discount rate were made into a moderate penalty rate with the differential between the discount rate and the bill rate different in various regions? I don't know the answer to these questions and am not advocating regional differences, but merely am suggesting that the question should be studied.

Question 8c asks if the discount rate should be graduated.



If it is pegged above the bill rate, I see no reason for graduating the rate or for otherwise punishing banks because of large-scale borrowing.

Part g of question 8 deals with interest payments on reserves. I am quite impressed with Tobin's proposal to pay interest on excess reserves, <sup>2/</sup> but I see little reason for paying interest on required reserve balances. The Tolley-Friedman resource allocation argument for such interest payments strikes me as invalid. <sup>3/</sup> Competition from nonbank financial intermediaries does not seem to hurt banks so much that they need interest payments on reserves to survive. <sup>4/</sup> Given the current and foreseeable budgetary strain, the Treasury's needs seem greater than the banks'.

In reply to question 7, I feel that the Federal Reserve should, in normal circumstances, lend only to member banks so that banks have an incentive to join the System. In a financial crisis, however, the Federal Reserve should lend to nonmember banks too. The present system of standing ready to lend to nonmember banks, but at a

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<sup>2/</sup> James Tobin, "Towards Improving the Efficiency of the Monetary Mechanism," Review of Economics and Statistics, August 1960, pp. 277-78.

<sup>3/</sup> George Tolley, "100 Percent Reserve Banking," in In Search of a Monetary Constitution, edited by Leland B. Yeager (Cambridge, Mass.: Harvard University Press, 1962); Milton Friedman, A Program for Monetary Stability (New York: Fordham University Press, 1959), pp. 71-75. For a criticism see my "Interest Payments on Required Reserve Balances," Journal of Finance, March 1966.

<sup>4/</sup> See Joseph Aschheim, Techniques of Monetary Control (Baltimore: Johns Hopkins Press, 1961), Ch. 7.

higher rate, seems sensible. Perhaps the differential charge against nonmembers should be raised, but nonmembers should be given a statutory right to borrow. (If the discount rate is made into a penalty rate, administration of the discount window is no longer necessary and hence statutory borrowing rights for all banks are feasible.)

This leaves question 4 dealing with open market operations. I welcome the abandonment of "bills preferably" and would like to see the Federal Reserve operate in as broad a market as possible. (I have not thought about this topic enough to specify any clear-cut limits.) The empirical evidence seems to suggest that it is the long-term rate rather than the short-term rate that affects investment. Hence, if we want monetary policy to be effective we must obtain significant changes in the long-term rate and do so without a long delay. If the long-term rate moves only trivially, then for much investment the only impact of monetary policy comes through the availability effect, and I don't think that this is powerful enough.

Hyman P. Minsky  
Washington University

1. General.

The division of labor between the discount window and open market operations should be determined by the special characteristics of these instruments, the existing structure of financial markets, and economic policy objectives relative to the structure of financial markets. There are three attributes -- two are inherent in the instruments and one is not -- that are worthy of consideration in determining the use of these instruments. The essential differences between the two instruments are that (1) whenever reserves are supplied by discounting, some units will be constrained by the newly created debt to the Federal Reserve System, whereas open market operations do not entail the de nova creation of debt and (2) in discounting the Reserve System sets terms such as defining eligible collateral and the market determines how much will be furnished, whereas with open market operations the Reserve System determines how much and what instruments to use and the market determines the price. (Note that whenever the Reserve sets the price of an instrument in ample supply, the quantity of reserves generated by open market operations is at the initiative of the market. Whenever this takes place, one of what I called the essential distinctions becomes blurred. Open market operations take on some of the characteristics of discounts.) The difference between

the two that is not essential to the instruments but rather is a characteristic of the American way of looking at banking is that open market operations are viewed as furnishing reserves to an impersonal market, whereas discounting operations are viewed as furnishing reserves to a particular bank.

Ideally, the discount window can serve as the mechanism by which transitory pressures from the money market, or if you wish, from various money markets, are transmitted to the Reserve System. If we accept that there are defensive and dynamic objectives in the supply of reserves by the Federal Reserve, the dynamic objectives can best be served by open market operations and the defensive objectives by the discount window. Fundamentally, the dynamic objectives are served by the trend rate of growth of reserves, commercial bank lending, and the money supply. The principal factors which enter the determination of these trends need not concern us; however, given the different ways in which our economy can function it seems unwise to set this trend rate of growth once and for all by adopting any rule. The Board of Governors must have continuing discretionary powers with respect to the target rate of growth in these fundamental monetary variables; however, changes in these rates of growth should not take place on the basis of short-run needs. Fundamentally, cycle and growth characteristics and objectives would be the major determinants of changes in the rate of growth of reserve credit by means of open market operations.

Therefore, during any period of stable economic policy objectives, the rate of growth of the reserve base would be constant; only when either the behavior of the economy or a change in policy objectives forces a reconsideration of past decisions would the rate of growth of the reserve base by means of open market operations be affected.

The discount window is an obvious technique by which pressure arising from banking and financial market processes, including seasonal currency drains, can be transmitted to the Board of Governors. A rise in market demand for banking accommodations, due to growth or cycle characteristics, beyond what can be accommodated by the open market rate of growth of bank reserves, will lead to a rise in borrowing from the Federal Reserve that will be in excess of the seasonal and mechanical-banking norms. These reserves should be furnished to the financial system on an ever-tightening set of terms. It may be desirable that impersonal instruments such as Treasury bills should not be eligible for rediscounting -- that rediscounting should always take the form of borrowings by a financial institution on a private market instrument at terms that are penal and under conditions where the extent of borrowing by any market operator determines the terms at which the borrowings are executed. That is, the discount window might not be an infinitely elastic source of credit to any particular market unit.

The economic-policy-determined rate of growth of the reserve base by way of open market operations will, at times, lead to a decrease

in the proportion of reserves furnished by the discount window. If this decrease reflects a slackening of demand for loans by the market, due to a shortfall of real aggregate demand below target, rather than an excessive rate of increase of owned bank reserves, an improvement of portfolios in those financial markets where borrowers at the discount window had been concentrated will take place. Some spillover from such portfolio improvement to the financing of demand can be expected to take place -- and this should be reinforced by discount rate decreases. However, whenever market conditions are such that owned reserves, supplied by the Reserve System, are used to clean up balance sheets rather than to finance operations even after such easing in terms takes place, there is some basic weakness in the underlying demand situation. This should be taken as a signal that some increase in the fiscal component of the expansionary forces is needed. In other words, if we view the dynamic monetary policy target variables as consisting of a rate of growth of reserves, earning assets, and money, whenever the rate of growth of own reserves exceeds the rate of growth of reserves, earning assets, and money a signal is being flashed that monetary expansion cannot do all that is needed and an increase in the weight of fiscal measures is needed.

To summarize, increased weight on the discount window -- especially a discount window in which loans collateralized by government debt are not allowed -- seems to be a desirable way of making the money market an emitter of clearer signals as to policy requirements.

Under present market arrangements, there is a single pool of reserves for those banks which I call money market banks -- banks which actively engage in managing their money position and which have a clearly articulated policy of being fully invested. Whether or not it pays for a bank to be an active money market participant depends upon the size of the bank, the set of market interest rates, and the state of the art (defined as the money market institutions that exist and the costs of participating in these markets). As a minimum an active money position management policy involves dealing in the Federal funds market and participating in the financing of security dealers. Active money position management may also involve the management of the investment portfolio as a buffer between the banks' reserve needs and the loan portfolio.

A money market bank which borrows at the Federal Reserve to make its position is not necessarily doing this because of its own activities. It is borrowing because it was at the end of the line in the Federal funds market. A bank borrows because of the luck of a draw combined with an unwillingness or an inability to take losses on its investment portfolio. The market really is borrowing rather than the individual bank.

Nevertheless, it is a particular bank that is, so to speak, the agent of the market. The debtor constraint, which is an essential characteristic of discount operations, is operative at a particular bank.

There is nothing in the mechanism that guarantees that the debtor constraint will be operating as a desired point in the financial system. Although the distinction between productive and speculative uses of credit is specious, and in particular, the distinction is a very poor guide for Federal Reserve policies, it may very well be that banks which have a heavy business loan demand may be borrowing from the Federal Reserve, at a time that banks which finance security transactions are acquiring borrowed reserves from the Federal funds market. That is, to the extent that the Federal Reserve System may wish to discriminate among types of paper, the present scheme of having banks use the window is not efficient: an efficient scheme would be to encourage the development of an active market in some instrument and allow the market participants to acquire their residual financing at the discount window.

To the extent that bank holdings of government securities, in excess of the collateral required for deposits, have almost vanished, the option of selling investments as an alternative to borrowing to make a reserve position has decreased in importance. Thus, increasingly we can expect to see the alternatives to be rediscounting or a restrictive loan policy. Bank business strategy, as well as the short-run profitability of loans, indicate that rediscounting can expand beyond its present scope before a marked change in the portfolio strategy of banks will take place. Of course, the price for loans will respond to the



effective discount rate. One characteristic of a banking system with permissive rediscounting is that the supply of loans is elastic at a price, and the price varies with the discount rate.\*

From the perspective of open market operations, central bank action determines the reserve base and thus the quantity of money. From the perspective of rediscount operations, central bank action determines conditions in some chosen set of financial markets. The market determines the reserve base and the quantity of money.

With present practices, the one clear case in which a market uses the discount window centers around the role that some New York City banks play as lenders of last resort to the government bond dealers: then banks stand ready to finance the dealers even if by doing this they are forced into borrowing from the Federal Reserve Bank. At one time the Board of Governors considered allowing the government bond dealers to execute repurchase agreements at the initiative of the bond dealers. This would effectively allow the Federal Reserve Banks to be the direct lenders of last resort to the government dealer market, rather than by way of these New York banks. If only because the indirect way introduces noise into the system, it might be desirable to reconsider whether or not government bond dealers should have the right to borrow at the window. Presumably the borrowing would be at a penal rate.

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\* The earlier suggestion of allowing the price to vary with the amount a particular borrower borrows will serve to keep the various market operators in step.

The above consideration introduces the classic division of labor among central bank policies: the discount rate was set to determine the interest-rate pattern, and open market operations were used to make the rate effective. The classical doctrine had bank rate primacy; U.S. usage has a quantity of reserves primacy. The view that what is to be controlled is the terms upon which financing is available is in marked contrast to the view that what is to be controlled is the quantity of some particular set of financial instruments. The money quantity view does not center around the question of how in fact does the price system operate in these markets; the financial markets view does.

The above suggestion -- that the dealers be allowed to borrow at the discount window -- is one step toward going "British." The other step would be to bar money market banks from the discount window. The British technique makes it obvious that it is the residual pressures in some markets that force borrowing from the central bank. In addition, because banks, barred from the discount window, will want to have some claims on the market that has recourse to the window, the pooling of reserves will become obvious.

A by-product of "Going British" would be to make very precise the point at which the debtor constraint upon the borrower at the Federal Reserve System enters financial markets. Debtor constraint would enter by way of the carrying costs for dealers in eligible paper; the first

pressure would be on position taking in such paper by way of the financing of the position. If eligibility for discounting is restricted to Treasury bills and perhaps bankers' acceptances, market pressures would first tend to affect security prices and the costs of taking position in financial markets. In particular the financing costs of underwriting new private issues will be affected. Within such an institutional framework, the loan portfolio of banks would be better insulated from transitory reserve pressures than with current practices.

Federal Reserve practices -- whether they be called open market operations or discounting -- should not be frozen into a rigid pattern. The Federal Reserve really has somewhat inconsistent responsibilities. One is to accept the market as is in determining the techniques that will use to feed reserves into the System. The second is by discriminating among instruments, and by having ever-evolving doctrines of eligibility to guide the evolution of the market in a direction that is desired by some criteria, based upon its views as to the relation between financial practices and the growth, stability, efficacy, and income distribution characteristics of the economy.

Perhaps the most important aspect of taking the market as it is in determining the technique the Federal Reserve will use is to recognize that the domain of responsibility of the Federal Reserve System is the entire financial system of the United States, not just member banks. (To the extent that the role of the dollar as an

international reserve currency is taken seriously, the domain of responsibility is the world's financial system.) The interrelations among the various financial institutions is clearly a Federal Reserve concern when the role of the Federal Reserve as lender of last resort is considered. The special rôle of commercial and more narrowly member banks as a Federal Reserve responsibility lies in the peculiar fact that the Federal Reserve can, in the short run, effectively control changes in the amount of reserve money in existence, and thus set upper limits to net new position taking by banks. Any effective lender of last resort or even a defensive operation by the Federal Reserve System affects commercial bank portfolios.

At present Federal Reserve practices have to assimilate the fact that negotiable CD's are a significant portion of the liabilities of money market banks. These instruments, while falling under the heading of time deposits, are in many ways the most volatile of commercial bank liabilities. Even though individual demand deposits may be volatile, in total the volume of demand deposits is quite stable. In the case of CD's, the total outstanding is quite volatile. The volume outstanding is sensitive to interest-rate differentials, and in addition there is a tendency for due dates to bunch. If serious liquidity squeezes upon commercial banks are going to occur in the near future, it seems quite likely that these certificates will be the source of the squeeze. Any liquidity squeeze for the System as a whole from CD's will reflect the

difference in reserves required by demand deposits and CD's. If dealers with Federal Reserve discounting rights are in a position to take up CD's either from the market or from issuing banks without limit, then the potential pressure on bank liquidity from the bunching of CD's can be constrained. That is, the growth of negotiable CD's as a major financial instrument may very well make it more vital than earlier that the discount window be opened to money market agencies, rather than be restricted to commercial banks: however, it may also require making CD's eligible perhaps by being endorsed by a money market dealer.

It may be useful to use CD's to illustrate the somewhat "split" responsibility of the Federal Reserve. If negotiable CD's like Topsy were allowed to grow, the Fed's immediate responsibility is to make sure that no cumulative deflationary pressure results from these instruments. There should be no "pass through" of pressure from banks either to security markets or to borrowers from any volatility in the volume or location of these deposits. In the longer run two possibilities are open to the Federal Reserve: one is to encourage the continuation of the CD, the other is to induce the banking system to unwind its commitment to CD's. In either case a temporary pressure on bank ability to hold assets should be offset. To encourage CD's, the Federal Reserve might stand ready, as previously indicated, to finance positions in CD's by dealers on terms that will normally enable the dealers to make on the carry of CD's and to stand ready to refinance positions in CD's

(if there is a rising term structure) that normally are financed by other means. Once again, very short-term corporate and bank funds will be the usual source of financing normal positions in CD's, and an extraordinary market condition will lead to the financing of dealer positions by borrowing from the Federal Reserve.

If it is the view of the Federal Reserve that CD's are volatile deposits that are capable of generating undesired financial instability, then a turly penal rate for financing positions in CD's should be instituted. Perhaps a shifting reserve requirement that recognizes the volatility of maturing CD's may be introduced. For example, the reserve requirement of CD's at reserve city banks with more than 90 days to run may be the same (4 per cent) as for passbook savings; for CD's with between 90 and 60 days to maturity a 7 per cent reserve requirement may be instituted; for CD's with between 60 and 30 days to go, the reserve requirement may be set at 10 per cent; between 30 days and 14 days the rate may be 13 per cent and for DC's with less than 14 days to maturity, the reserve requirement would be the same as against demand deposits (for country banks similar steps in reserve requirements would be in effect). Only if CD's are refunded when they still have 90 days to go will the full reserve saving be available.

The Federal Reserve's essential discriminating policy is to determine whether it will encourage or discourage any market usage: this may be more important than its discretionary power with respect to quantity of reserves or the discount rate.

II. Comments on Specific Questions.

1. See general comment.

2. Reserves are fed into the national market by rediscounting, however, the Federal Reserve can determine what type of paper is eligible. The discounting mechanism enables the central bank to favor particular types of paper. If the Federal Reserve wants interest rates on mortgage loans to be lower than on other paper, it can achieve this goal by buying and discounting this paper at favorable terms.

3. I suggest a rising rate to the market participant borrower as a function of his borrowing; however free access at discretionary rates may be better.

4. Any instrument could be used in open market operations. In particular there is no reason why the Federal Reserve should not buy and sell Federal funds on the open market. Such dealing in the Federal funds market may be another way of separating the dynamic from the transitory introduction of reserves.

5. Basically, eligibility is a form of protection and hence subsidy to a particular market instrument. If market dealers can use the window, the eligibility is a determinant of their portfolio. Thus the criteria are what type of paper and therefore what type of underlying transaction do you want to support.

6. In my general comment I indicated that the System would be stronger if it were recognized that it is the market rather than a particular bank that borrows. It may be desirable to classify banks as money market banks and other, depending upon their type of business. Money market banks would not be able to borrow directly from the Federal Reserve; the others would.

7. Once again, it might be better for the Federal Reserve to lend only to market operators.

8. a. Instrument differentials might be desirable; any regional differential is a type of instrument differential. The criteria obviously are who and what do we want to subsidize.

b. Same answer as 'a'.

c. Once again, thinking in terms of a bank borrowing may be misleading.

d. No comment.

e. No comment.

f. No comment.

g. The issue of paying interest on reserves mixes up reserves and other assets. The function of reserves and the reserve ratios is to determine the amount of earning assets the banking system can acquire.



Offhand, the present technique works quite well in parcelling the ability to acquire assets among the various banks; hence I do not see any sense in trying to change from a system in which such reserves exist. The only possible reason for paying interest on reserves is if it is felt that bankers deserve a subsidy. It may be desirable to have the Federal Reserve pay interest on reserve balances in exchange for the elimination of service charges on checks.

Francò Modigliani

Massachusetts Institute of Technology

Preliminary Notes on the Federal Reserve Discount Mechanism  
and Discount Policies

1. Framework

In answering the questions raised in the memorandum, I rely on the following general framework. By and large, open market policy is the most useful and effective device for controlling the amount of reserves available to member banks. Accordingly, I would propose to design a discount window mechanism and a discount rate and related policies which would tend to minimize fluctuations in free reserves-- either in absolute terms or in relation to the total monetary base. At the same time, the system must retain, through the discount window, the role of the central bank as a lender of last resort. From this framework the following implications seem to follow.

2. How to Regulate the Discount Rate

Since there is a fair amount of a priori reasoning and empirical evidence to suggest that the bank borrowing is positively associated with the spread between short-term market yields and the rediscount rate, I favor making that spread a constant as nearly as possible. Accordingly, I would advocate tying the discount rate to the 3-month bill rate. Specifically, the base level of the discount rate should be set a fixed number of basis points above the bill rate [I have not thought out what the appropriate spread should be]. I refer to "base level" because, as noted below, I also favor a system of

penalty rates. Under the proposed set-up, the rediscount rate would fluctuate continuously and automatically, thus also avoiding announcement effects which, on the whole, I regard as a nuisance. I do feel that under many circumstances the central bank could further its goals by explaining to the market what it is trying to do. But this should be done explicitly and not through the devious device of discount change announcements, which the market must then interpret as best it can.

### 3. Limiting the Use of the Discount Window

Because I favor minimizing the volume as well as fluctuations of borrowing by member banks, it is important to find ways of limiting this practice. Fixing the rate above the bill rate will help but may not prove sufficient. I therefore favor a schedule of penalty rates above the base rate, although I have not thought out in detail the structure of the penalty. At the same time, I would favor facilitating borrowing, as long as the bank is willing to pay the price. I would, therefore, be very liberal in the kind of security that should be acceptable to the central bank as collateral. It is also obvious that the borrowing rate should be independent of the collateral. Also, because I am anxious to encourage all banks to become members of the System, I would recommend limiting borrowing privileges to member banks in good standing.

4. Payment of Interest on Excess Reserves

While I have not thought this problem out completely, I am inclined to favor payment of interest on excess reserves at a rate tied to the bill rate and hence to the base rediscount rate. I favor this because it would probably tend to reduce fluctuations in excess reserves, a desirable goal in order to stabilize free reserves. In fact, under present arrangements, when short-term market yields, such as the bill rate, are low, banks--particularly country banks--tend to hold a relatively large volume of excess reserves since the opportunity cost of these reserves is roughly measurable by market yields. As the bill rate and other market yields go up, banks tend to reduce the amount of these excess reserves. Suppose on the other hand that they received interest, say  $r_e$ , on their excess reserves, and let  $r$  be a representative short-term market yield (say, the bill rate, or the Federal funds rate). Suppose that we can fix  $r_e$  at a fixed discount below  $r$ . Then, under the new set-up, the opportunity cost of holding excess reserves would be  $r - r_e$  which, by construction would be roughly a constant, independent of  $r$ .

It should be noted that under the present set-up, the Federal funds market effectively provides a way by which banks can earn a return on their surplus reserves and that this return is automatically tied to short-term market rates. However, the Federal funds market is not too readily accessible to small country banks. A payment of interest on excess reserves would also tend to equalize the opportunities for banks of all sizes.

I realize, of course, that there are a number of problems posed by the interest payment suggestion, which I have not thought out fully. In particular, how could  $r_e$  be set? If we want to continue the present system in which banks, rather than the Federal Reserve, are encouraged to hold bills, then presumably  $r_e$  should be set somewhat below the bill rate. How should it relate to the Federal funds rate? I doubt that it should be directly tied to daily fluctuations in the Federal funds rate, but tying  $r_e$  to some average of the daily rate might be sensible. One also runs into the difficulty that, if  $r_e$  is below market rates, then when market rates become low enough,  $r_e$  would hit zero and could not be reduced any further. This is unfortunate, but what it merely implies is that this reform cannot eliminate liquidity-trap phenomena--unless one took the radical step of making  $r_e$  negative (levying a penalty on excess reserves) when market yields become really low!

Walter A. Morton  
University of Wisconsin

1. Discount policy should continue to have the dual role of accommodating the individual bank and of regulating the total volume of bank reserves for the purpose of maintaining the appropriate volume of money and of liquidity.

2. At present the ability of the large banks operating in a national market to obtain deposits through use of negotiable CD's makes it desirable to keep open to individual banks throughout the nation the ability to replenish reserves when necessary and desirable. The use of the CD could shift deposits to the financial centers and with that shift would drain outlying or smaller banks of their reserves. These banks could counter by selling secondary reserve assets or by also issuing CD's. However, I believe that it is desirable to make it possible for such banks to borrow directly from the Federal Reserve.

To me the central fact about the growth of CD's is that the deposits of a bank need no longer be closely related to the community in which they operate. A strong bank can draw deposits from the whole nation if it wishes to pay a high enough deposit rate.

Discounting should be, as in the past, at the initiative of the member banks. However, the Fed. must put restraint upon the volume of discounting by traditional means when it is used to expand the total volume of reserves beyond the desired amount. Whole states or regions may be accorded liberal discounting privileges when, in fact, employment

could be increased in such regions by use of otherwise idle resources. Discounting then must remain a means of creating a truly fluid national money market in which the resources of individual institutions in financial centers do not unduly influence the operations of other less powerful institutions in other parts of the country. I do not believe, however, that it is feasible, and for the most part it is not desirable, to use the discount mechanism for qualitative control of credit or for the allocation of resources. If that use should be necessary, and I hope not, it should be done by other devices.

3. I would regard the discount mechanism as supplementary to open market operations and alterations of required reserve ratios. I do not believe that the height of the discount rate is as important as the decision of the Federal Reserve at various times to make credit more or less freely available. We have ample experience of countries continuing to inflate with short-term interest rates as high as 15 per cent. A high discount rate does not stop credit expansion if the money is made available to finance expansion at an inflationary pace. Under those circumstances, because of expected higher prices, the nominal marginal efficiency of capital rises faster than interest rates.

I believe emphasis should not be placed upon the level of interest rates as a guide to policy but on the quantity of money and of liquid assets with respect to the volume of unemployed resources and the resulting deflationary or inflationary tendencies.

Depending upon the circumstances, the tradition against continual borrowing should be invoked to prevent inflation or it should be overlooked when borrowing is used in particular localities to expand the volume of employment without inflation.

It requires a tight ropewalker to balance the individual with the national interest, but the Federal Reserve Governors did not accept their appointments because they thought the job was easy. By now, they also know that although there may be guideposts, there is no simple rule that will save them from errors of judgment.

I do not believe that any fundamental change should be made from the recent practice whereby monetary policy is determined basically by open market operations, and rediscounting is used by individual institutions to adjust their reserve positions.

4. Because I do not believe it to be a prime objective of the Federal Reserve to affect the level of structure of interest rates, I would not use open market operations to do so. I agree, of course, that changes in reserve positions will affect interest rates, but I would regard the latter as a result of policy determined by other objectives.

While I would not dogmatically adhere to the "bills preferably" doctrine and would buy assets of various maturities, I still hold the view that the Federal Reserve should not attempt to directly determine long-term interest rates. It should influence member banks reserves



and leave it to market demand to determine the level of rates and to expectations to determine the structure of rates. I would be opposed to a direct attempt to set the long-term bond rate. That action would bring a return to the conditions before the Accord which, unfortunately, some are now beginning to forget. In a national liquidity crisis, no rules would hold, and the Federal Reserve might have to buy anything. At present there is no need to depart from the practice of buying government securities with a maturity of 5 years or less.

5. I see no reason for applying different rediscount rates to different kinds of assets. The Federal Reserve should continue to insist on government securities or on business paper of good quality without the limitation implied by the "commercial paper" theory. But in an emergency it should lend "on any satisfactory asset." In any case, it should maintain the position that rediscounting is a "privilege" and not a "right."

6. Consequently, the Federal Reserve must retain the right of determining how much, how often, and how long a bank can borrow. As mentioned under (2) the Federal Reserve must prevent a squeeze upon any bank or any region. Such a squeeze might permit the bank or region to remain in debt for a long time. But the basic consideration must be the same as for total credit policy, the effect on total member bank reserves and on total output and employment. I do not believe it wise to establish either by law or by rule any definite rule concerning these matters.

7. I have not enough first-hand knowledge to answer this question. I am inclined to the view that the Federal Reserve should lend only to banks but its lending to nonmember banks would depend upon the effects that might have on interbank relations and upon membership in the Federal Reserve System. For the most part, I do not believe that the small country banks are in need of this assistance. But I would modify my opinion if there is evidence to the contrary.

8. a. Discount rates should be uniform nationally, except where there is strong evidence that some locality needs differential treatment in the national interest. The criterion for such differential treatment would be the need for additional loans in the area to stimulate employment or conversely the need for restraint to correct a dangerous inflationary tendency. On the whole, I believe that a uniform rate, with, however, lending policies operated by the district Federal Reserve Bank so as to encourage or restraint member bank borrowing is the best way of bring about the desired influence. But I would not be dogmatic about it if that method proved too difficult or ineffective.

b. Rates should be uniform on all types of paper. However, the Federal Reserve should be able to warn member banks or to refuse loans if they bring in inferior paper.

c. No. The amount borrowed should be controlled primarily by the needs of national monetary policy and/or the peculiar needs of

a bank or region. The same is true of the duration of borrowing. All other criteria, except some mechanical rule which related borrowing to total assets, would be difficult to administer and would not serve a national monetary purpose.

d. The only criterion for determining the discount rate is the effect of the rate on the willingness to borrow. A rate below the market encourages borrowing. But what "the market" is will depend on the demand for credit. Presumably, a discount rate above the bill rate would prevent borrowing to buy bills, but only one above the prime rate would inhibit borrowing to lend to customers. I do not believe it possible to set in advance the particular market rate to which the rediscount rate should be related. It could be the bill rate, the CD rate, the prime rate, or even the customer's rate. In the event of an inflationary tendency the rediscount rate should be set above the highest of these rates. In case of large unemployment, it should be set at whatever rate will stimulate borrowing without promoting reserves so excessive that they might later result in excessive expansion and inflation. I believe the right rediscount rate during depression is low but just how low depends primarily on the volume of excess reserves.

e. At present the "announcement" effect seems to be that the Federal Reserve is determining what level of interest rates should prevail. That I think undesirable. I believe it would be preferable

for restraint to be placed by open market operations to be followed by a higher discount rate. That is the opposite from the December 1965 policy which seemed to put the discount rate up first, followed a few months later by gentle restraint. The main effect of this procedure has been to make the Fed "responsible" for higher interest rates and still make them open to the criticism that they are doing nothing to prevent inflation.

f. Past practice of changing the discount rate seems to me to be quite satisfactory.

g. Interest on member bank reserve balances would tend to destroy the Federal funds market. Unless there was a rate advantage a bank would not lend Federal funds. Hence, the banks now borrowing Federal funds would be forced to rediscount. I feel sure the banks would adapt themselves to any new rule, but I believe the net effect of interest on deposits in the Federal Reserve would be a larger volume of total reserve holdings. Seeing no advantage to this, I would not favor a change.

Lawrence S. Ritter  
New York University

I have no strong views about the discount rate or window, and I have no real objections to the way the discount mechanism has been employed in the past decade. I think the so-called penalty rate is a bit of a mirage--penalty relative to what?--and do not espouse a floating rate (as Canada had) nor a variable differential as some have proposed from time to time. The reason I feel this way is because to a large extent it is like a dog chasing its own tail. Since the Federal Reserve can substantially influence the bill rate by its other policies, one is sort of kidding himself to say, "If the bill rate goes above the discount rate, the latter must be raised." The bill rate goes above the discount rate in part when the Federal Reserve wants it to, and usually at such times the Federal Reserve will want to raise the discount rate as well in order to re-inforce its policies. There should not be any automatic compulsion that this need always be done, however.

I am very much against closing the discount window (a la Friedman), for I think it serves a useful and necessary purpose in easing pressures on the banking system where and when those pressures are greatest.

All this is more or less by way of saying that pre-1966 administration of the discount rate and discount policy has been suitable in my view. I see no important changes which I think should be made.

On the subject of eligibility provisions, however, I would very much like to see a change in the law. Present eligibility provisions are a hangover from the days of the real bills doctrine and should be completely eliminated. I would like to see the law changed so that the Reserve Banks could--without any rate differential --lend on the basis of any "satisfactory" collateral. Legislation has been introduced by the Federal Reserve to this effect several times, but nothing has come of it so far.

By the way, I still favor legislation requiring all banks to be members of the Federal Reserve System, or failing that, requiring all banks to hold such reserves as the Federal Reserve specifies and then permitting all of them access to the discount window.

Roland I. Robinson

Michigan State University

My suggestions are as follows:

Question 1. Discounting is just one of several ways of adjusting the money positions of banks. The fact that it is the only way that also influences the total volume of bank reserves is of almost no consequence to the individual bank unless it becomes sensitive to direct pressure by the discount administrator of its Federal Reserve bank.

Question 2. For the Federal Reserve the discount mechanism is primarily a safety mechanism. If harsh and aggressive open market action is needed--or if reserve requirements should need to be increased--the discount window would help banks that are unusually heavily affected. Miscalculations have less impact. One exception . . .

Question 3. The announcement effect of changing the discount rate does have some helpful aspects and, in my ~~opi~~ opinion, is worth retaining. However, I should like to see these rate changes made so as to keep the level of discount rates just a little above the comparable money market rates, such as bill yields and the CD rates offered by banks. I should not want a harsh penalty rate but one that removes profit reasons for wishing to use the discount facility. I still think it strange to have the Federal funds rate even occasionally above the discount rate.

Question 4. The administration of the discount window would not be so paternal if rates were a bit higher. Neither of the two extreme words--"right" and "privilege"--in the foreword to Regulation A is helpful. Banks need some reluctance to stay in debt or else the Federal Reserve would lose its initiative with open market operations. But to have some banks never use the discount facility is too extreme also. Empirical work by the Federal Reserve on the extent of use of the facility would be useful.

Questions 5 to 8. I see little reason for broadening the type of assets used by the Federal Reserve for open market operations. Our public debt is big enough; any other form would raise questions about relative interest rates--and I don't like the Federal Reserve tampering with relative rates. I also see no need for attempts to move funds regionally; our capital markets do this very well automatically.



James R. Schlesinger  
RAND Corporation

Excerpt from a letter from Dr. Schlesinger:

There is one matter on which I should like to express a tentative judgment. Given the existing institutional arrangements, I believe that major benefits could be obtained by freeing the discount rate from the month-to-month administrative determination and having it float in some steady relationship to the average Treasury bill rate in some preceding period. The episode of last December 1965 had a special impact in impressing upon me the political rigidity involved in administrative determination. The lagging adjustment of the discount rate indicates that deleterious financial consequences occurred because of apprehension of untoward political consequences. Moreover, when adjustment of the discount rate is finally made, a political furor is likely to result, a furor which is wholly disproportionate to the real significance of the action taken. I feel that these political disturbances can be avoided and the discount mechanism can function more smoothly, if the rate is permitted to move automatically.

In the United States the discount mechanism necessarily plays a more limited role than its British counterpart; yet many of hoary beliefs in the community regarding the initial importance of the discount rate reflect misleading inferences drawn from the British shilling. The Federal Reserve discount rate is at present essentially

a derivative rate, which should appropriately be adjusted to its own place within the structure of money market rates. Its role is the negative one of avoiding the provision of dysfunctional incentives within the money market. The existing procedure, however, results in the poor and risky fulfillment of this limited function. If the fanfare (and the fears) associated with the raising of the discount rate could be avoided, the discount function could be performed far more efficiently. The automatic and continual adjustment of the rate within the rate structure would go a long way toward alleviating this problem. I realize that such a change might require legislative action. It would also result in a further reduction of the responsibilities of the district banks, but this consequence may not be altogether undesirable.

From what I have said, I think you will gather that I do not regard as very desirable the transformation of the discount mechanism and its bolder employment to stimulate or restraint credit expansion. While some case can be made for such action, I think we can rely on open market operations as fully adequate in this connection.

So much for the broader problem: let me make two other relatively minor observations. First, I think that the eligibility requirements are both obsolete and unduly restrictive. I would be inclined to fulfill the promise of the Banking Act of 1935 and to make borrowing permissible on almost any sound asset at the normal

rate. In the course of this, I would drastically simplify the paperwork associated with the borrowing process. Second, I would make less use of acceptability or other devices for curtailing access by member banks to Federal Reserve credit. I think that such devices lead to the possibility of discrimination among banks, which is excessive, which can have untoward consequences, and which is not essential to the achievement of the purposes of the Federal Reserve System.

Ira O. Scott, Jr.

Question 1. The discount window should remain as an instrument of the central bank in its role as lender of last resort. Because of its effect on monetary variables, the discount rate should be shifted according to over-all stabilization needs. Although I do not feel there should be a change in the use of discount policy, I believe the mechanism should be changed. Specifically I believe we should adopt a penalty rate system and that funds should be made available freely to the borrowing bank at the penalty rate. This would eliminate the undesirable arbitrary elements in the administration of the discount window.

Question 2. Discount accomodation should be an important source of liquidity to individual banks and regions but at a cost in excess of the return on short-term credit instruments. Discounting should not be used to influence the allocation of credit among banks, regions, or types of assets.

Question 3. The discount rate should be the sole regulator of the volume of credit extended. As suggested earlier, a penalty-rate system should be introduced. I would not, however, favor an automatic penalty system such as the one which has been used in Canada. Rate changes should be made at the discretion of the Federal Reserve System.

Question 4. I do not favor the acquisition of assets other than U.S. securities by the F.O.M.C.

Question 5. I believe the Federal Reserve System should be free to ascertain the elibibility and acceptability of collateral to be used at the discount window. Indeed, System officials should be given the authority to liberalize the criteria sufficiently to prevent a general liquidity crisis should one threaten again.

Question 6. A bank should be permitted to borrow as much and as long as it wishes from the Federal Reserve at a penalty rate.

Question 7. The Federal Reserve should lend to the primary dealers in U.S. securities as well as to member banks.

Question 8.

- a. Discount rates should be uniform nationally.
- b. The rates should be uniform on all types of paper offered.
- c. The rates should not be graduated.
- d. The present method of changing discount rates should be maintained.
- e. "The announcement effects" of discount rate changes should be preserved.
- f. The frequency and size of credit changes should be determined by economic conditions. In general I would see no need for a marked change in present practice.

g. I believe there might be merit in studying the possibility of interest on reserves held in the form of deposits. Such a practice might be accompanied by granting permission to member banks to pay interest on their own demand liabilities. The Federal Reserve System might also consider accepting time deposits.

Richard T. Selden

University of Virginia

The following responses to Professor Chandler's suggested questions are rather brief and assertive; unfortunately I have not been able to spend the amount of time on these subjects that would be necessary for a full and carefully reasoned treatment. I nevertheless hope that these responses will be of some help to the Board in its timely study of the discount mechanism.

Question 1. In my judgment the discount mechanism does not, and should not, play a major role in the United States. Its only importance would seem to flow from the following considerations:

a. Member bank borrowing constitutes a "leakage". It tends to undermine the effectiveness of monetary policy since it weakens Federal Reserve control over the volume of bank reserves and hence over the volume of money (and credit); this is especially apt to be true if discount rates are changed only infrequently, while open market rates are experiencing fairly wide swings.

b. On the other hand, a change in the discount rate is a dramatic and well-publicized action which is noted throughout the economy. Moreover, because it is a point of contact between the Federal Reserve and member banks, the discount window may provide useful information about the economic climate. Finally, the mere existence of the discount facility probably exerts some calming effect on the economy, somewhat in the same manner as deposit insurance.

None of these considerations seem terribly significant. Perhaps the supposed advantages under (b) could be retained while most of the disadvantages in (a) are eliminated by converting the discount rate into a true penalty rate which would be kept approximately 2 percentage points above the rate on Treasury bills. Another possible means of checking abuses of the discount privilege would be to prohibit all growth in a bank's earning assets so long as it is in debt to the Federal Reserve. However, such a prohibition would be inferior, in my opinion, to the establishment of a flexible penalty rate.

Question 2. I do not believe that complete elimination of the discount facility would have any drastic effect on individual bank operations, in view of the wide range of alternative sources of funds. Initially there would probably be an increased desire to hold excess reserves, but I would not expect wide fluctuations in excess reserves over time. It is possible, however, that some small banks would be hit hard by elimination of discounting; participation in the Federal funds and CD markets would be expensive or impossible for many of our smallest banks. Hence, any such proposal would undoubtedly encounter strong resistance.

I see no reason why the discount mechanism should not be preserved, as suggested in question 1 above, as a source of funds that would be attractive only to banks that are faced with bona fide emergencies,

With respect to the use of discount policy as a form of selective credit control, experience elsewhere indicates that such an



approach could have substantial effects on the pattern of allocation of credit. Nevertheless I would be disturbed by any tendency for discount policy to evolve in the direction of selectivity, because of the danger that the end result would be pervasive public controls over the allocation of capital. In general I am not impressed by the alleged need for regional or other selectivity in economic policy, and insofar as there is such a need I would prefer that it be realized by means other than monetary and credit policies.

Question 3. In my judgment the discount mechanism should operate as nearly as possible in accordance with clearly stated objective rules that apply to all banks. Aside from the possibility mentioned in question 1, that a bank should not be permitted to expand its earning assets while it is in debt to the Federal Reserve, I would recommend virtually complete reliance on the discount rate as a rationing mechanism. It would be wise, perhaps, to maintain the distinction between a "right" and a "privilege," so that Federal Reserve credit could be shut off in the event of unforeseen contingencies. However, I see no reason why the notion of "reluctance" should be nurtured by Federal Reserve officials. Set the rate and allow banks to borrow as much as they see fit.

Question 4. I believe that the Federal Reserve should be empowered to buy and sell a wide range of financial claims, including commercial paper, corporate and municipal bonds, and mortgages. It is conceivable that on some future occasion the Federal Reserve's power to determine the volume of bank reserves would be impaired under

present rules. However, I regard this as a very remote possibility.

While I have no firmly held views with regard to "bills only," for two reasons I would favor primary reliance on Treasury bills for open market operations. First, the immediate effects on the prices of the securities traded is much less important than the impact on the availability of bank credit through the creation or destruction of bank reserves; the latter impact can be achieved by operations in either bills or bonds. Second, since the market for bills is much broader and much more active than the markets for long-term securities, the Federal Reserve can best carry out its open market operations without disrupting normal trading drastically if these operations are confined to bills.

Question 5. I favor the proposed amendment to the Federal Reserve Act which would permit the Federal Reserve to accept any bank asset as collateral for discounts and advances. Indeed, I see no reason why the Federal Reserve should not be permitted to make unsecured loans to member banks.

Question 6. As I have already indicated, under a flexible penalty rate, the volume and frequency of borrowing would be determined by the borrowing bank, although the Federal Reserve would maintain the right to refuse accommodation. I see no need to alter the present rules regarding the maturity of borrowings.

Question 7. I would like to see the Federal Reserve have authority to lend to a wide range of nonbank lenders, purely as an

emergency measure that might come in handy during some future crisis. Extension of borrowing privileges to nonmembers during normal periods would seem to eliminate the principal advantage that a bank now gets from membership. Under these circumstances membership would become largely meaningless.

Question 8.

- a. Uniform nationally.
- b. Uniform for all collateral.
- c. Graduated rates would be unnecessary under my proposal.
- d. I would favor weekly establishment of the discount rate by the Board of Governors. I would recommend that the Board normally set the rate 2 percentage points above the weekly auction rate on 182-day Treasury bills; however, this margin would be determined by the Board, not by any legislative mandate.
- e. The announcement effects should be reduced and, more generally, the mystique that enshrouds central banking should be removed. The principal means of reducing the announcement effects of discount rate changes is to make such changes much more frequently than at present.
- f. More often, by smaller steps.
- g. At present member banks are, in effect, being taxed for the privilege of operating in a regulated industry which, as a matter of public policy, is protected from certain normal business risks. Moreover, if the Federal Reserve were to begin paying interest on reserve balances, present holders of bank

stock would enjoy very sizable capital gains. Hence I am not enthusiastic about paying interest on total member bank reserves.

However, the payment of interest on excess reserves only is a proposal that merits closer study. The gains conferred upon bank owners would be comparatively small; yet the functioning of monetary policy might be improved somewhat since banks would have much less incentive than at present to vary their excess reserves in a cyclically de-stabilizing manner. It might be wise to limit interest payments to individual banks to (say) the prevailing discount rate as applied to the first 4 or 5 per cent of excess reserves (taken as a percentage of required reserves).

Eli Shapiro and William L. White

Harvard University

The Federal Reserve discount mechanism and discount policies should have as their purpose the provision of liquidity to the commercial banks in this country. Banks' needs for liquidity arise at three levels:

- (1) There may be a national liquidity need arising from either domestic or external events which could be characterized as a systemic need for liquidity.
- (2) The banks in a region may find themselves pressed for liquidity arising from economic events that affect the entire region.
- (3) The individual bank may need liquidity for any of a variety of reasons.

1. National Liquidity Needs

Discount policy by the Federal Reserve System should deal only with the last two of these problems, but not the first. In the event of the need for systemic liquidity, the Federal Reserve System should follow Bagehot's dictum and move with alacrity, vigor, and courage by engaging in open market operations in any assets and in a sufficient order of magnitude to avert a liquidity crisis.

2. and 3. Liquidity Needs of Individual Banks and of Banks in a Region

For an individual bank or for banks in a region subject to needs for liquidity, there are three sources of liquidity:

- (1) The liquidity of the portfolio. (As explained later, our suggestion for discount policy would still provide incentives for the bank to be concerned about the liquidity of its portfolio, since it would secure liquidity by discounting at the expense of growth in its assets so long as it is in debt to the Federal Reserve.)

- (2) The banks' ability to compete for funds. In this connection we would urge the complete elimination of the interest ceiling on time and savings deposits, thereby freeing the banks to plan to incur additional costs in competing for funds when their portfolio provisions are inadequate to meet their liquidity needs. We are ambivalent about eliminating the prohibition of the payment of interest on demand deposits. However, if pressed, we would opt for the elimination of this prohibition. Payment of interest on demand deposits would allow individuals and businesses to treat money as an earning asset in their portfolio choices and would lessen uneconomic switches from demand deposits to time and savings deposits and vice versa.
- (3) We have developed a viable national market in Federal funds which enables individual banks or banks in a region to secure temporary access to liquidity.

It is in terms of these existing capacities for meeting the liquidity needs of individual banks or banks in a region that discount policies should be formulated. Our views are as follows:

- (1) Discount policy should be changed to provide individual banks or banks in a region subject to liquidity needs with the right to obtain the necessary liquidity by discounting any asset they hold with the Federal Reserve Bank. It is imperative that we eliminate the notion of eligible paper which is a vestigial remain of the commercial loan theory which has plagued central banking in this country since 1913.
- (2) In giving the individual banks the right to discount any asset, we must insure that the Federal Reserve does not lose active control over the reserve base. Therefore, any bank in debt to the Federal Reserve should not be allowed to increase its assets so long as it remains in debt. This would assure that discounting is used to meet liquidity needs as opposed to supporting asset expansion.

Since the bank in debt is punished by not being able to expand its assets, the interest rate at which it can discount is not critical. But to encourage the individual banks to use the proceeds of loan repayment or new deposit inflows to retire their

indebtedness to the Federal Reserve, we would tie the discount rate to the Treasury bill rate and have it move automatically with changes in the bill rate.

While we appreciate that the bill rate is subject to a whole series of influences and therefore may not be a perfect measure of underlying money market conditions, it is adequate for our needs. Such a tie would have the added advantage of avoiding the current problems of the "announcement effects" of changes in the discount rate by the Federal Reserve.

An alternative proposal would be to use a punitive schedule of rates where the punishment is a function of both the size and the duration of the discounting. This policy would require open-market operations by the Federal Reserve to assure control over the overall reserve position of the banking system. In our judgment the punitive rate(s) is a less desirable choice than the proposal outlined above.

A third choice would be to pay interest on commercial bank reserve balances at the Federal Reserve. We think this is even more awkward and less certain to provide liquidity than either of the two alternatives above.

- (3) We recognize that the small bank would find it more difficult than would a large bank to secure liquidity by using promissory notes, CD's, or borrowing in the Federal funds market. Moreover, if the liquidity need pertains to a region, the individual bank in that region will have even more difficulty in securing liquidity through the financial markets. Thus, the right to rediscount with the Federal Reserve is a necessary concomitant of the banking structure in the United States and the need to provide liquidity to the individual banks.
- (4) The allocation of credit among banks, regions, and types of uses should be made by the individual banks, not by the Federal Reserve System. Discriminatory discount policy should not be used for this purpose.

- (5) The right to discount should be available to all commercial banks in the United States. However, as a condition for the availability of this right, the banks must join the Federal Reserve System. Such a proposal would preclude the existence of the "dual banking system" from interfering with the provision of liquidity to commercial banks by the Federal Reserve System.



Edward C. Simmons  
Formerly of  
Duke University

Question 1. Unfortunately there is widespread confusion as to what is meant by monetary policy. To me monetary policy means controlling the size of the stock of money. It is really the only reason to have a central bank in a market economy. Without a central bank the volume of money would behave capriciously because money today consists primarily of demand deposit claims against profit-seeking commercial banks.

When the central bank acts to control the size of the stock of money, money rates may tend to shift about and also the ease with which borrowers can obtain funds for various purposes may alter. But it must be understood that the central bank does not exist to produce such phenomena. They are merely incidental, although some persons have tried to make out that the central bank has as its principal concern the "cost and availability of credit."

Obviously in this memorandum we cannot discuss the ultimate goals of monetary policy. We must stop short of that and simply say that we need a central bank because we have fallen into the unfortunate position of using debt claims on commercial banks as means of payment. It is an absolute necessity for government somehow to control the aggregate amount of such debt claim. We have

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devised a fairly effective way of doing this within the framework of our fractional reserve banking structure. In simple terms we control the aggregate amount of member-bank reserves, and we prescribe a minimum reserve ratio. Thus there is fixed an upper limit to the expansion of bank deposits.

Central banks have usually been encumbered with powers to do many things which are only remotely related to their primary task -- seeing that the stock of money behaves appropriately. To accomplish this purpose their principal weapon is open market operations. This weapon is impersonal and unquestionably effective. On rare occasions minimum reserve requirements may have to be changed. The rest of the weapons of central banking are superfluous and some are even irrelevant.

Obviously this view leaves no role for discount policy.

Why then does the discount mechanism exist?

It is one of those vestigial historical survivals which abound in our dynamic society. Because this country has long had a fragmented banking structure with thousands of banks, smaller banks have come to lean in bigger banks, borrowing and obtaining other forms of aid from them. When the Federal Reserve came upon the scene, borrowing from the central bank seemed perfectly natural. Indeed at times the new central banking institutions acted much as if they were themselves just bigger commercial banks. In the days before we had a large national debt and a highly organized government

securities market, borrowing by commercial banks to adjust reserve positions was probably indispensable. But since at least the end of World War II there has been no genuine reason for banks to use this means of reserve position adjustment.

Banks emerged from World War II liberally endowed with government securities. An entire generation of bankers had grown up without knowing what it was to borrow at the Federal Reserve. They began to borrow toward the close of World War II simply because the configuration of money rates shifted in such fashion that the use of the discount facility became advantageous. It was a major mistake of Federal Reserve policy to allow this to happen.

Although many commercial banks have shifted out of government securities since that time, all banks have the opportunity to hold adequate secondary reserves in the form of short-term government securities. These they can use to adjust reserve positions as funds flow out. When funds flow in, obviously secondary reserve assets must be acquired. However, when it is easy to borrow at the Federal Reserve, many banks find it preferable to meet reserve drains by borrowing.

Abrupt withdrawal of discount privileges would create chaotic conditions in the money market, but it is still true that the discount mechanism should never have been revived after World War II.

Borrowing in the course of normal banking operations is not necessary. Many banks have demonstrated this. Perhaps in the face of an incipient panic, direct loans by the central bank may be called for, but this memorandum is not intended to delve into such matters.

I do not believe that raising or lowering discount rates or altering the terms on which the central bank lends to member banks is needed to control the size of the stock of money. To put it bluntly, I see no role for discount policy in monetary management.

The Federal Reserve should look toward the gradual atrophying of discount operations. Each time money market conditions ease, some additional obstacle should be placed in the way of borrowing by member banks. Gradually discounting will then vanish with a minimum of disturbance.

[ In the remainder of this memorandum we discuss some aspects of how the discount mechanism should function during the fade-out phase.]

Question 2. It is assumed here that if they do borrow member banks do not remain long in debt. They borrow only to meet reserve drains that threaten them with a reserve deficiency penalty.<sup>1/</sup> They

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<sup>1/</sup> We shall pass over the absurd notion that borrowing for longer periods permits banks to meet seasonal demands for loans in particular areas, such as agriculture. There is no magic by which the central bank in manufacturing money in response to discounting can bring into existence new capital goods and then destroy these capital goods when the peak has passed. From the outset the Federal Reserve has been obsessed with the idea that it exists to meet seasonal needs. Actually it appears that the System's founders confused a seasonal "need" for hand-to-hand money with a seasonal "need" for loans.

must dispose of earning assets fairly quickly to pay off their borrowings. Thus deposits and assets move about from bank to bank, facilitated possibly by the ability of banks to borrow, but in a fashion no different than if borrowing were not possible.

If an entire region faces a reserve drain, borrowing by that region's banks can do no more than delay briefly the asset liquidation in that area which the deposit migration calls for. In the case either of the region or of the individual bank, if banks follow adequate secondary reserve practices, drains can be met without borrowing and without hardship.

Obviously there is no net creation of liquidity by reason of short-term borrowing, provided the general level of member-bank indebtedness remains constant. If more liquidity is needed, and that can mean only more money, open-market operations will suffice. To permit commercial banks on their own initiative to force the Federal Reserve to create additional bank reserves seems a curiously inefficient way of managing the nation's money. To the individual banker the thought of being able to borrow may be reassuring, but it might be well to eliminate such encouragement of imprudent extension of resources.

At least since the 17th century the notion has been current that banks are remarkable institutions that permit persons banded together to increase the liquidity of the economy by issuing

generally acceptable debt claims based on the wealth of the "company." Dosing the economy with liquidity in this fashion proved disastrous in the land bank era. But the idea persists today in variant form. Now it is in the form that the central bank improves the lot of mankind by responding favorably to the requests of the commercial banks for loans.

Discount policy should certainly not be employed to influence the allocation of loanable funds (credit) among banks, regions, or types of use of funds. The market mechanism can perform the task of allocating scarce resources, of which capital is one, among alternative uses. What is more, the market mechanism can perform this task better than any board or commission of experts.

Question 3. The change I propose is to gradually eliminate discounting and thus to rely more and more upon open market operations. Because for some time discounting would continue, the matter of the discount rate calls for brief comment.

I would urge that the Federal Reserve rely on price rationing rather than on other types of rationing along with some price rationing. Other types of rationing are such things as "eligible paper" definition, "acceptable paper" definition, and "judgment," that is, "direct pressure."

Where there are thousands of banks, all profit-seeking, the only fair and workable rule is to set a price on accommodation that will not encourage so many to borrow so much that arbitrary rationing will need to be imposed. The Federal Reserve never seems to have understood one of the most elementary economic propositions, namely that the market achieves rationing of scarce things through the price mechanism.

Specifically the recommendation here is that the discount rate be made a true penalty rate. There is ample precedent for this recommendation in central banking history. And it would accomplish the one most essential reform, the elimination of discretion in the granting of accommodation. A further necessary step is to eliminate discretion in the setting of the rate itself. This may be done by establishing a fixed differential between the discount rate and the Treasury bill rate, say 2 or even 4 per cent.

Question 4. Ideally the central bank should be permitted to deal in all sorts of assets at will. Historically limitations were imposed because of the idea that the central bank's own liquidity depends on its being able to sell its assets to someone. But since the central bank's liquidity, unlike that of the commercial banks, does not derive from the ability to shift assets to others, but from the central bank's unique ability to create money, there is really no logic to the customary restraints.

The only real concern is that the central bank can buy enough of whatever it is authorized to deal in to keep member-bank reserves at the desired level. With a national debt of the present size, the supply of assets would seem to present no problem. Restricting the Federal Reserve to dealing in national debt securities minimizes the need for "experts" who can determine the correct relative prices for a wide range of assets. Even in the government securities case, as was learned during the "bills only" controversy, there is the thorny problem of the relative price of long-term as against short-term government securities.

The idea advanced in some quarters that the central bank should buy and sell a wide range of assets simply to alter their relative prices, while intriguing to many persons, is not to be entertained. The market mechanism must be relied upon to determine the relative price structure. Although someone can always point to episodes in which the market mechanism worked sluggishly, its performance in the long run is likely to be a good deal better than that of any board of experts. Modern socialism provides abundant examples of mismanagement in the area of relative price structure.

Question 5. Whatever lending is done by the central bank should be only on member banks' own short-term notes secured with short-term U.S. government securities. This requirement would stimulate bank interest in maintaining good secondary reserves. If there is to be a panic provision, such as section 10(b) of the 1933 Emergency Banking Act, a broader list obviously will apply in such instance.



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The entire eligibility and acceptability doctrine is a sad and confused piece of business. Here the broom should be used vigorously, even ruthlessly. There is no deeper mystery anywhere than that which surrounds "eligibility" and "acceptability" to say nothing of "appropriate" and "inappropriate" uses of Federal Reserve credit. The matter approaches the level of religious doctrine.

Question 6. This question indicates how far we have gone toward accepting the idea that nonprice rationing should be practiced by the central bank. Instead of this approach, it is proposed in this memorandum that a price be set high enough to perform the requisite rationing. Any other kind of rationing will, as Federal Reserve history demonstrates, be arbitrary, inconsistent, and even ineffective.

Federal Reserve people seem to delight in administering various homemade rationing techniques. I was amazed in visiting several Reserve Banks during the late 1950's to find that discount officers took positive joy in devising rules and schemes to govern the amount of accommodation to be granted. One suspects this sort of thing stems from a bureaucratic love of possession of some small kingdom over which sovereignty may be exercised.

Question 7. I do not see that there is really any need for any lending to any one, but if the Federal Reserve must lend, let the member banks be the only customers.

There is no problem unless we delude ourselves, as many persons interested in economic development do, with the idea that the central bank should function as a source of funds for building dams and other social betterment projects. Once we grasp the essential truth of the idea that the central bank exists only to control the size of the stock of money, clearly all of its dealings should be of the minimum and at its own discretion and confined to monetary institutions. If for no other reason than to simplify its task, it should exclude all others except member banks and government security dealers. It must have contact with the latter to engage in open market purchases and sales, but it must not, of course, make loans to them. Even repurchase agreements with government security dealers should be eliminated, if possible.

Question 8a. If we are to go on forever with the present awkward structure of a duodecimally fragmented central bank, there should be only one discount rate for the entire nation. The compartmentalization suggested by Federal Reserve district boundaries is meaningless, and any other identification of "regions" would be equally lacking in sense.

Question 8b. There should not be several classes of paper. The proliferation of types of paper is the delight of the bureaucratically minded whose unawareness of his faith in the effectiveness of non-price rationing is pitiful.

Question 8c. No. All this is rationing by some criterion other than price.

Question 8d. The rate should be a penalty rate, well above the highest rate earned on any class of assets. I propose a rigid differential above the Treasury bill rate. The discount rate, however, should be changed only once a week simply to simplify record keeping. The ceremony of changing the rate by administrative process ought to be eliminated. What useful purpose does it serve to have a weekly Board meeting and the recording of a vote, which is reported in the press? Let those who say that this is a way for the Board to exert an influence on the economy consider alternative ways of communicating economic intelligence.

Question 8e. By making the rate a penalty rate at a fixed differential above the Treasury bill rate, to be changed once each week, the announcement problem would disappear.

Question 8f. This question is irrelevant if the recommendation made in this memorandum is accepted.

Question 8g. An interesting point is raised here, although the relevance of the subpoint to the main question is not apparent.

There is some advantage in paying interest on member-bank deposits in Federal Reserve Banks; the commercial banks would be mollified. However, there is no substance to the proposal.

The commercial banks are frequently unable to see any real difference between a balance of the Federal Reserve and any other asset. Practical bankers find it hard to understand that reserves at the Federal Reserve are a device to control the size of the money stock. To understand the matter one need only ask himself how the money stock could behave if bankers were left to their own devices. Late 19th century English banking demonstrates what mischief can arise even in a moderately well-run banking system under circumstances where there is not even a convention as to holding to some minimum ratio in terms of some scarce asset.

To pay interest on reserve balances would be simply to take one step toward denying that the Federal Reserve is a central banking institution. It would not enhance the effectiveness of monetary control, and no step which does not lead in that direction should be considered.

To pay interest on excess reserves is to accomplish by indirection something that can be done directly. If excess reserves threaten to bring about an undesired expansion, they should be eliminated by open market operations or in extreme case by changing reserve requirements. Payment of interest on excess reserves is another gadget, something to delight those who see virtue in complexity.

Question 9. It is alleged in some quarters that the discount mechanism enhances the ability of the Federal Reserve to manage money. When these claims are examined they are seen to rest on the view that monetary management means concern with amount and kind of lending that banks (and even other lenders) do.

It is argued in this memorandum that concern with such matters represents a mistaken view of the purpose of the central bank. Whether the claims themselves are true or false are not discussed here. Commonly employed is the doctrine that it is good for banks to be in debt to the Federal Reserve when "tight money" conditions are appropriate because this condition makes the banks "reluctant". This doctrine is said to support the usefulness of the discount mechanism as a device of monetary restraint.

In its modern form this is a modified version of W. W. Riefler's "reluctance theorem," which, it will be recalled, was advanced to explain money-rate movements. In recent years the index used to measure the condition of the money market has been "free reserves" rather than "member-bank indebtedness." It should be observed that even the combining of the indebtedness of all member banks yields an aggregate that must be interpreted with care. This is true because member banks differ widely from one another as well as from one time to another in their reaction to being in debt. This caution becomes even more significant when "free reserves" replaces member-bank indebtedness as the index because there is an added

factor. The algebraic adding together of the excess reserves of some banks and the borrowing of others yields a purely synthetic magnitude that measures nothing that is operationally meaningful. No bank is ever (except by accident) both a holder of excess reserves and a borrower at the same time.

Less significant is the consideration that making the center of focus the dollar amount of free reserves places the real objective in the shadows. The debate becomes one over whether the degree of tightness or ease in the money market is correct rather than one over whether or not the stock of money is behaving appropriately.

Although it may possibly be demonstrated that the rate at which the money stock changes bears some measurable relationship to the volume of free reserves, such a demonstration does not lead to the conclusion that the best possible way to control the money stock is to manipulate with one hand the volume of member-bank **borrowing** and with the other the volume of excess reserves so as to obtain some given level of **free** reserves. That there are enormous difficulties in this approach is apparent when one reflects that member-bank reactions are highly variable. Member-bank borrowing patterns and responses seem almost to deny rational explanation, depending as they do on a host of nonprice restraints. Some banks will not borrow under any circumstances, others borrow at every opportunity. The Federal Reserve's discount policy contains a vast

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array of restraints of one sort and another including the so-called "tradition against borrowing" -- a tradition about as venerable as those enshrined on the campuses of colleges founded in 1913. (It is amusing to note how the Federal Reserve labored in the 1950's to revive this tradition.) Some banks do not borrow because they have become angry with the Federal Reserve's persuasiveness. Some banks do not borrow because they wish to exhibit a spirit of independence. Some do not because they believe it is not profitable. And unquestionably many borrow less than they would because someone in the Federal Reserve has talked them out of it or because of a fear of being interrogated.

If the nonprice restraints were constant over time forecasting would be less difficult than it is. The behavior of banks cannot be forecast reliably. A given amount of free reserves will produce one effect at one time and a quite different effect at another.

There is no virtue in trying to use the discount mechanism to control the size of the stock of money. Were open market operations unknown and were the variable reserve ratio unknown, then, as in fact during the early days of the Federal Reserve, discount policy would be the important central bank weapon as it was in a long-closed era. The Federal Reserve, however, harks back to that time possibly because all bureaucracies are incapable of surrendering any piece of territory, no matter how inconsequential, once sovereignty over it has been won.

Comments on

The Federal Reserve Discount Mechanism and Discount Policies

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1. The continuity of monetary mechanisms - A monetary instrument, is a means to an end. There is no uniformity in the way such instruments are applied by the various central banks, and any identities in their terminology may be highly misleading and of little help for comparing their forms and uses in different countries and at different times.

There has been, however, a definite continuity in the way each central bank has handled its own tools of monetary policy. Instruments are adapted in a gradual way to the structure of financial markets, in day-to-day operations, and to the objectives of national policy, to the attainment of which they are intended to contribute. Radical changes in monetary instruments, like in the institutions to which they are related, are more likely to prove disruptive of existing relationships than constructive of a more efficient system. There is, nevertheless, a continuing need on the part of the authorities to refurbish their tools, in line with changing market practices and policy objectives.

The special role of the discount mechanism in monetary policy derives, in my opinion, from the flexibility of its application by central banks as they pursue their purposes and functions. This is



related, in turn to a triple nature of this facility, in the sense that:

(a) through its rate, the discount mechanism provides a yardstick of the cost of money that influences the market pattern of interest rates; (b) through the eligibility of the paper on which it is extended, it can be focused on setting credit standards of "soundness" and "selectivity," in accordance with economic considerations; and (c) through the discretion given to the central bank, each operation provides an occasion for a review of the lending practices of the applicant bank and the establishment of common credit practices in the banking system.

In accordance with these principles, and in view of recent market changes and current credit problems at this time (1966), I assume that the questions in the Board memorandum have been formulated having in mind the problem of how to influence the allocation of credit among users, given a policy framework of over-all credit restraint, and as a related objective the maintenance of an orderly interest-rate structure. I assume also that, as a matter of terminology, the emphasis on "discount" and the absence of any reference to "advances" in the memorandum do not imply a distinction between discount and advances in the lending mechanism of the Federal Reserve.

2. The role of discount and its adaptation as a qualitative mechanism - Advances and discounts have found a proper place in Federal Reserve policy as the most appropriate instrument for meeting temporary and specific needs of individual banks; open-market operations are used

to make short run but continuing and general adjustments in the liquidity of the financial markets, and reserve requirements provide for longer-run changes in the reserve level of the banking system. I see little to be gained from any basic change in this arrangement, but see advantages to be obtained by introducing greater flexibility in the complementary uses of these instruments.

Through the years discount mechanisms have been adapted in many qualitative ways. During the 1920's, for instance, the Reserve Banks applied differential discount rates, eligibility criteria, and credit lines with a view to local or external objectives--agricultural financing, exchange stabilizations--with mixed results. Even under current policy, the broad discretionary principles enunciated in the Board's Regulation A have a distinct qualitative flavor, in their reference "to the purpose of the credit and to its probable effects upon the maintenance of sound credit conditions, both as to the individual institution and the economy generally" - though in actual application the use of the facility has been restricted to short run adjustment with little evidence of "qualitative" selectivity.

In more recent years, and particularly in the postwar decade, some central banks of European continental countries (France and Belgium, for instance) have relied on the discount mechanism for assuring an adequate provision of credit to certain sectors or purposes (such as short-term export credit and intermediate equipment financing). Their

experience was mixed, but generally the discount commitments underlying such policy led to a greater expansion of credit than the monetary authorities would have extended otherwise, or conversely made their task in restraining credit that much more difficult. Principally, for this reason, these central banks have since cut back the granting of discount commitments, except for specified types of paper arising from foreign trade, subject to special advance review of the underlying transaction.

In developing countries, particularly in Latin America, the discount mechanism has been used for various purposes, such as introducing new credit instruments, channelling bank credit toward sectors dependent on money lenders, and altering the distribution pattern of bank credit. For instance, negotiable commercial and mortgage credit instruments found their way in various markets following their acceptability for discount by central banks. This has been in line with a prevailing trend toward more uniform and lower interest rates, a redirection of credit from commerce to development, and the promotion of new financing practices and institutions. Success has been greater where limited and specific purposes have been sought through the discount mechanism-- in Mexico and Costa Rica for instance--while global goals have generally met with unsuccess. On the other hand, policies pursued by certain central banks in the 1950's to regulate through the discount mechanism the over-all distribution of bank credit (by combining discount quotas and differential rates, as in Colombia and Chile) led to serious

administrative complications and inflationary monetary expansions, which caused such policies to be abandoned in stabilization programs during the 1950's.

These experiences give rise to doubts as to whether the use of the discount mechanism for regulating credit allocation among users - so as to give proportionately more to some and less to others - could be of any general effect and to concern that its use might prove particularly inconsistent with the conduct of a stable monetary policy.

3. The discount as an enforcement instrument - The granting or withholding of the discount, being applied as a "privilege" and not a "right," may, on the other hand, prove effective for enforcing other and more direct forms of credit regulation. That is, by determining the conditions under which a bank could have access to the discount window, the Federal Reserve may induce and give effect to "qualitative" concepts of credit policy. Such a procedure would seem consistent with existing principles of the System's discount policy and with precedents set by other central banks.

Direct regulation of credit expansion, set forth in the forms of percentage ceilings on over-all increase and of limitations on particular types of credit, has become widely recognized as a most effective instrument of policy, where qualitative objectives are sought jointly with an over-all quantitative restraint. Its application has spread among advanced and developing countries, ever

since it was first introduced, between the late 1950's and the early 1960's, by the Bank of Mexico, with respect to the acceptance of short-term accounts and the extension of mortgage lending, and by the Bank of England, with respect to consumer and inventory financing. In Mexico this direct regulation came as part of a long-range economic development policy, in Britain it was part of a balance of payments stabilization policy, and in both cases the limitations were extended to financial institutions in general, whether banking or others. This type of regulation has been last applied, among others, by the Swiss authorities since 1964, for containing the expansion of bank credit in general, and in particular of mortgage financing and the offering of securities on the capital market. Of course, the Federal Reserve itself has used it, quite successfully, for holding back the expansion of bank lending to foreigners.

Direct credit regulation has naturally a compensatory effect: any limitation of credit with respect to certain purposes (regarded as speculative or marginal) releases credit for other purposes (generally classified as "productive" in domestic or balance of payments terms); thereby this type of regulation softens the impact of the restrictive policy. If these special credit-claiming sectors of the economy were to be given, instead, a privileged access to discount facilities, the central bank would in turn be compelled to find recourse to alternative measures for compressing correspondingly other types of financing.

The point of view that the discount facility could be best used for the enforcement of qualitative regulation, rather than as a qualitative instrument itself, finds support, for instance, in the practices of the Bundesbank of Germany and the Bank of Italy. Since the introduction of guiding ratios concerning the use of capital resources and the liquidity structure, the Bundesbank has made compliance with such ratios a condition for giving banks and other financial institutions access to its discount and related credit facilities, under the general principle that whether or not an advance "can be granted in an actual individual case will be decided according to the general credit situation and the individual circumstances of the would-be borrower." The Bank of Italy is not committed by any formal statement or regulation, but administers its discount policy on a flexible, day-to-day basis, with very sparing use of changes of the discount rate and close coordination with other types of credit accommodation. In actual operations, the Bank of Italy attaches great importance to an informal review of lending practices, whenever a banking institution approaches it for the use of the discount facility.

4. Redefining the role of the discount mechanism - The view that direct regulation of credit can be more effective by enforcement through the discount facility does not exclude the advisability of re-considering the scope of the mechanism itself within the framework of

present practices and policies. Its temporary use appears particularly appropriate to certain specific purposes, carrying broad qualitative implication, such as:

i. Where the nature or term of the credit need by a bank is seasonal or local, and particularly under conditions of a tightening policy, the provision of reserves to banks through the discount mechanism appears distinctly superior to open market operations. In the first place, by bringing the bank in need to the "discount window," the discount procedure provides an opportunity for a review of its lending practices by Reserve Bank officers, independently of any formal credit regulation. In the second place, the discount operation, while effectively meeting a specific need, places the borrowing bank under the definite commitment to reduce its borrowing as the need terminates, either by reversing the operations that gave rise to it or by earmarking new resources to such purpose;

ii. Where a bank, or a group of banks, suffers an unexpected loss of deposits (and reserves) through no fault of its own (due, for example, to the exodus of business from the area, or a poor crop, or a worsening of the terms of trade of the region vis-a-vis other parts of the country), the discount mechanism can be used to "lend time," making available the credit necessary to such banks while adjusting their loans and investments to the new position;

iii. Where a bank, or a group of banks, in a certain area is faced with an unexpected loan demand of high priority (due, for example, to an unusually large crop, a sudden inflow of defense orders, or Federal actions involving business participation in "depressed area" programs), the discount mechanism could be used to "anticipate time," by extending credit that the banks would repay out of the expected inflow of new funds into the area.

These three cases above may be regarded as more or less typical of the application of the discount mechanism as ad hoc instrument with a qualitative purpose. In all cases, its temporary use could be strengthened by the application of graduated discount rates, progressively rising to a sharp penalty level the longer a bank uses the facility; the rising rates would induce the bank to make prompt repayments consistently with the nature of its need, the limit set to the operation, and intent of the authorities. This approach is in line with the established principle that the use of the discount facility, as a privilege but not a right, rests on the judgment and discretion exercised by the Reserve Bank in each particular case, within the framework of the System's general policy. Such a procedure might need to be strengthened by closer coordination between the discount practices of the individual Reserve Banks and the monetary policy decisions of the System as a whole, particularly during tightening phases requiring the exercise



of greater discrimination in the review of discount applications from member banks in the various Reserve districts.

5. The complementary use of other instruments - These purposes could admittedly be served by some modified use of other instruments. For instance, greater flexibility in the reserve requirement would enable the Federal Reserve to make temporary and case by case adjustments for any bank or group of banks by:

i. Lowering requirements to the extent and period necessary to enable such banks to meet temporary, local, or other special needs of the type indicated above;

ii. Raising requirements, in order to "freeze" temporarily a concentration of excess liquidity in one or some banks, so as to prevent the excess liquidity from spreading through the banking system.

Such adjustments of reserve requirements could just as well be done by a combination of discount and reserve requirements: for instance, by the Reserve Banks lending to banks in need against their reserves, at the discount rate or at a penalty rate, and by the System borrowing excess reserves from banks by offering to pay interest at the discount rate, or at the prevailing Federal funds rate.

As a matter of fact, a combination of discount mechanism, reserve requirements, and open market operations could open the way for the System's intervention in the Federal funds market, thereby

adding a tool that might at times facilitate the transmission of its day-to-day operations to the market. By using these existing procedures the System may extend its "repurchase agreements" for day-to-day accommodations to Federal funds' dealers on any week or day when undue pressures would seem to develop, or when the easier conditions that are being sought are in the market. By adopting a reverse procedure, the System could enter "borrowing orders" for Federal funds in days or weeks of liquidity outburst or when a tightening effect is sought, so as to maintain the degree of liquidity or tightness consistent with its policy and also with orderly market conditions. This would, in effect, be a way for the System to pay interest on excess reserves offered by banks, without assuming a definite commitment to pay a fixed interest on all or any predetermined part of the excess reserves of the entire banking system. In times of easing policies, the extension of the System's credit facilities to banks through Federal funds market would lessen the reliance on the discount window and also on the need of the System to purchase Treasury bills; in time of tightening policies, the borrowing of excess reserves by the System would compel more "deficit" banks to the discount window, thereby enhancing the effectiveness of the discount mechanism without resorting to sales of bills.

The adjustment of reserve requirements (or liquidity coefficient) for very short-terms for seasonal purposes (crop movements, tax payments) has been used extensively in such countries as France, New Zealand, and

some Latin American countries. Similarly, the borrowing of liquid funds from individual banks at the discretion of the central bank finds a precedent in the Treasury Deposit Receipts (TDR), which acquired great importance in the United Kingdom during and for a period after the war. Also, the extension of "Lombard Loans" (against the collateral of Government securities), for providing day-to-day liquidity to the market, is used by European central banks; such loans carry a somewhat higher rate than the normal discount, because of their occasional and short-term nature, in contrast to the somewhat longer period required of discount operations.

6. Flexibility and reversibility of discount operations -

These approaches to monetary policy follow the philosophy that the Federal Reserve should avoid any definite commitment, but should maintain complete discretion and flexibility in the use of instruments and the setting of terms and conditions, so as to preclude any automatic access of banks to its discount window. In the exercise of its discount authority, a Reserve Bank should also be free (as I believe it has always been) to apply special conditions upon a borrowing bank; for instance, that it should reduce its securities' holdings or seek participation of other banks in its loans, as a prerequisite for the granting of the use of the facility.

These principles are consistent with the view that neither the kind of paper offered by the borrowing bank nor differences in

rates based on such paper are of significance, as are the need for which the discount is sought and the lending practice of the bank seeking it. The principle that the discount is not to be used as a permanent addition to a bank's own resources should remain firm, but the temporary nature and reversibility of the need giving rise to demand for the discount should continue to be the guiding element in the Federal Reserve decision. A time-progressive rate structure could be applied, that, without taking the place of, would nevertheless strengthen the repayment provisions stipulated in the discount operation.

If the System and the banks were to abide by these principles, I see little to be gained from arbitrarily setting any shorter discount limits than the nature of each operation requires and the law stipulates. The System could, therefore, extend its discounts to its full permissible limits, up to the 9-months allowed for agricultural paper and notes-- always subject, however, to the rule that each discount operation should not be constrained within any shorter, nor be allowed to extend over any longer, period than the time required for the reversibility of the need for which the discount was granted.

Along with this flexibility of maturities and repayment conditions, similar discretion would seem warranted with respect to quantitative limits. Discount ceilings, as have been set by certain central banks on the basis, for instance, of the capital of commercial banks, may be justified on pragmatic grounds but bear no relation to

the need for which a bank might seek rediscount nor to the purpose which the authorities might intend to meet. Moreover, they tend to undermine the monetary policy itself, as such ceilings or quotas have generally become identified with minimum or normal credit lines, giving the banks an expectation and claim of automatic and permanent access to discount. In such cases, the central banks have found themselves induced or compelled to provide additional discount facilities whenever the banks reached a "fully-borrowed" position; discounts above, not under, the discount line have thus become the decisive factors of monetary policy. Central banks in advanced countries like France and Japan and in developing countries like India and those in Latin America have had this experience; neither these experiences nor that the System in the 1920's has much to recommend in favor of a return of the discount facility to quota or ceiling systems.

7. Extension of discount facilities to other institutions -

The working of the discount mechanism in the United States involves a co-responsibility of policy and operations: The Reserve Banks extending discounts, as part of the implementing process of monetary policy, to member banks that meet the guiding principles set forth by the Board. In this interrelation between the authorities and the members of the System, the discount is, in effect, a counterpart for compliance with policy rules, exemplified by reserve requirements, interest rates, and portfolio regulation. The extension of this facility to other institutions

(whether nonmember banks or nonbanking financial intermediaries) could hardly be considered outside of this reciprocal context: the discounts could not and should not be regarded as a gratuitous benefit to be conferred without regard to the acceptance by the recipients of correspondent policy rules.

The financial system of the United States, with its pluralistic and shifting pattern of banking and other institutions, gives rise to problems that are not so common in other countries, where the financial structure is usually closely integrated with a few large and stable banks, diffused in their organizations and diversified in their functions. Where specialized institutions exist to any significant extent, the central bank has established contacts - whether by giving banks access to its discount facilities, or by intervening in the markets of their securities (by operations or regulations), or by requiring them to maintain minimum balances or liquidity coefficients (whether by law or more frequently by gentleman's agreements), or, finally, by the influence that its direct regulations, letters of request, moral suasion, or simple advice usually carry. In all cases, the extension of discounts by the central bank is but a part of this policy interrelation that extends in some countries far beyond banking institutions, to cover, directly or indirectly, offerings of corporate securities to the market and investments in securities by financial institutions.

The Federal Reserve, by joint Board and Bank decisions, has considerable leeway in its formulation of discount policies and extension of discount facilities to others than member banks - not excluding individuals, partnerships, and corporations ' in unusual and exigent circumstances." The question of extending the discount facility beyond the banking system is obviously related to changes in the financial structure. Pending a resolution of the broad and difficult problem related to the "specialization" or the "mixing" of banking and nonbanking institutions, any extension of discount might be considered primarily with respect to those institutions closet in their functions to member banks: that is, nonmember banks, the intermediate credit system and the savings and loan system. In a limited and circumscribed way, the Federal Reserve is authorized to open the "discount window" to nonmember banks, and in a more direct and explicit way to the Federal Intermediate Credit Banks: powers that the Reserve authorities have exercised very sparingly, the former only occasionally in recent years and the latter not since about the 1920's.

The repeal of Section 13-b in 1953 brought to an end the Federal Reserve experience with direct lending to industrial and commercial businesses. In view of the role of the System as monetary authority, the nature of the discount as monetary instrument, and the adequacy of the financial structure in providing to the credit needs of the economy, no purpose would be served by any resumption of direct

lending to business. This involves technical and risk judgments for which the System is hardly equipped; there is also danger that a too broad or loose expansion of lending practices outside of the banking structure would make it more difficult for the System to contain its operations when a tightening of credit would be called for.

Any extension of the discount facility within the financial system should be viewed from the standpoint of its contribution to the Federal Reserve responsibility for maintaining a viable monetary system based on the orderly functioning of financial markets. The discount instrument may be particularly effective in bringing about closer coordination between Federal Reserve and financial institutions in general, and Federal lending agencies in particular, and in making them more responsive to changes that would help in the direction and degree of monetary policy. This subject has been widely discussed and has attracted great attention within and outside the System, and has already induced positive steps and measures toward such coordination.

These purposes and the principle that the extension of the discount facility should be tied to policy conditions could both be achieved by appropriate amendments to the pertinent legislation. The same purposes, however, might as well be attained by the Federal Reserve offering access to its discount window by certain institutions (nonmember banks, Federal intermediate credit banks), and Federal home loan banks), upon their acceptance of such stipulations as:



a. Nonmember banks would maintain deposit balances with the Reserve Bank in lieu of the reserves required of member banks. Nonmember banks could be expected to maintain minimum balances at ratios to deposits equivalent to those of comparable member banks. The amount of balances to be held by the Federal intermediate credit and home loan banks could be stipulated by agreement (between their respective Boards and the Federal Reserve Board), on the basis of pertinent considerations, such as that these Federal agencies would in turn obtain correspondent balances from productive credit associations and savings and loan associations.

b. Nonmember banks would be expected to abide by the interest-rate limitations and other pertinent regulations on savings and time deposits and market borrowing issued by the Federal Reserve with respect to member banks; the Federal intermediate credit and home loan banks would be expected to enter into agreements with the Federal Reserve Board with respect to their rates on lending to member associations and to the exercise of regulatory powers on interest rates and accounts of such associations.

c. Nonmember banks, when admitted to the discount window, would be expected to provide information on their operations, as the Reserve Banks might require; the Federal intermediate credit and home loan banks to consult with the district's Reserve Bank and the Reserve Board on matters of common policy and to exchange information (on

reciprocal and advance basis) with regard to any decision or rulings pertinent to their operations.

The admission of nonmember banks and Federal agencies to the discount facility should not give them any automatic or continuing right of use; the extension of each operation should be subject, as for member banks, to discretionary and case-by-case review and decision by the Reserve Bank and to the general policy of the Board with respect to the exercise of the function.

8. Extension of discounts to other instruments - There are relatively few binding restrictions on instruments that the Federal Reserve can discount, or lend against, or purchase, that might effectively impede its function of providing credit to institutions or the market under changing conditions. Therefore and in view of the universal recourse to Government securities, the active use of bankers' acceptances, the eligibility of obligations of certain Federal agencies, and the emphasis on the purpose and terms of each operation, the type of paper eligible for discount would appear to be of secondary, if any, importance. An expanded eligibility schedule would necessarily include any loan classified as "productive" and normally carried by banks (agricultural, industrial, commercial, foreign trade, and possibly others), so that any new definition could hardly be significant in influencing banks in their lending: except perhaps, in selecting some particular paper, for form rather than substance. Conversely, the

exclusion of any specified type of paper from the discount facility (for instance, loans for inventories, securities transactions, consumer purchases) could hardly deter a bank from such lending - no matter how many loans ineligible to discount a bank would carry, its portfolio would always hold a volume of "eligible" paper amply sufficient to cover its discount needs at the Federal Reserve.

A question might be raised as to whether the eligibility or use of any instrument should be discontinued from the discount (or purchase) operations of the Federal Reserve. It might be noted that eligibility to discount (or purchase) does not in any way commit the Federal Reserve to any specific course, as it remains entirely free to choose the instrument and scope of its operations on a time-to-time basis. The shift back and forth from long- to short-term Government securities and the flexibility currently maintained in open market operations confirm this approach.

More specifically, the question might be raised, for instance, concerning banker's acceptances. It could be argued that the original reasons for discounting and purchasing acceptances no longer exist, now that the market is well established and the Federal Reserve support is no longer needed. On the other hand, the banker's acceptance is the prime instrument not only in trade financing, but also in the investment portfolio of international private banks and foreign central banks. In its correspondent relations with foreign central banks, for

instance, the Federal Reserve Bank of New York is frequently asked to purchase acceptances for investment of dollar balance of these banks, and the fact that it is in the market facilitates this courtesy function on behalf of such institutions. Moreover, the extent to which this arrangement helps to keep in the United States funds which otherwise might seek investment elsewhere is of some importance in the present balance of payments situation. Last but not least, now that monetary authorities tend to depend increasingly on regulations, any actual market contacts with and operations in credit instruments give these authorities more immediate and sensitive "feeling" of trends and conditions than does statistical compilation. Continuation of these operations, therefore, seems warranted, if for nothing else than to keep the System's initiative in the market on a continuing and flexible basis.

9. Discount policy determination and effects - Nor does there seem to be any justification for departing from established procedures in the determination of the discount rate and policy. The present procedure of joint decision on rates by each Reserve Bank and the Board has the advantage of combining national and regional considerations. In fact, no discount rate could be set, nor any significant change made in policy, that would not take into account other policy organs and instruments - particularly open market operations and the Open Market Committee.

A major purpose of a discount decision is its "announcement effect," which is regarded by most central banks as an important monetary action in itself. Such effect cannot be abandoned or decreased without weakening the influence of the authorities on the market and the economy. It is through its announcement that the Federal Reserve is in a position to convey an indication of purpose and degree of tightening or easing. The moral suasion that goes with a change of the rate has an important function in guiding and helping the banks in transmitting the official restraint or ease to their customers and to the economy in general. Needless to say, such "announcement effect" tends to wear out as the market becomes adjusted to the new level of rates and needs, therefore, to be supported by follow-up actions and operations, in order to hold the impact past the time of the decision.

A significant element in the "announcement effect" is the extent of the rate change. The Federal Reserve tradition has been one of narrow and infrequent changes - more usually as adjustment to prior market changes made effective by other actions (through open market operations, in particular), with a tendency to minimize the announcement effect. This practice differs from that of other central banks (such as those of England and Japan), which rely on sharp changes and the use of the rate as a signal to the market of an impending policy change. On the other hand, the Federal Reserve practice - with greater reliance on the discretionary power than on the cost of money as determinant of its discount policy - finds closer correspondence with

other central banks, such as France with its narrow variations and Italy with its infrequent changes. The interesting and theoretically appealing experience of Canada that linked the discount rate on a "penalty basis" to the weekly auction yield of Treasury bills, failed to satisfy the Bank of Canada itself - such a linking could hardly be politically acceptable in this country and might actually result in a tendency to depress artificially the bill rate in order to hold bank changes in the discount rate.

For these and other reasons, it would be hazardous to suggest how often or by how much discount rates should be changed, or at what level they be held in relation to others. The timing and extent of each change need to be related to market conditions, policy objectives, and the political climate and to be reviewed in the light of alternatives open to the central bank in lieu of the change, at the moment when the decision is to be made.

Professor Lester Chandler  
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Dear Les:

I would like to dissent from the views expressed by some economists who are highly critical of the present discount rate system and advocate a system of floating discount rates.

First, I think that many of these critics exaggerate the awkwardness and perversity of the announcement effects. Sometimes changing the rate is a good symbol of the Federal Reserve's diagnosis and intentions, especially important for international interpretations. The possibility that Federal Reserve actions will be misinterpreted exists for its other instruments too--note the weekly commentary on net free reserves and on the Treasury bill and flow of funds rates. The general lesson is that the Fed should be more open and less delphic regarding its intentions and aims. But this lesson is no reason to discard any particular instrument.

Second, let us consider the main difference between a floating discount rate regime and the present system. The main difference is this: The floating rate system is tighter. That is, a given size open market operation will have more effect on market interest rates and on quantities of "money" and credit. Less of the open market operation will be dissipated by borrowing from or repaying the Fed.

This might be considered an advantage, although I don't understand why. After all, nothing prevents the Fed's Governors from making bigger open market operations if they want to, or from changing the discount rate if they don't want to.

But there is another side of the same coin. A floating rate system will also respond more radically to outside shocks and oppose them more strongly. Thus suppose there is a boom which increases demands for bank loans. Under the present system the availability of loans at a fixed discount rate at the Fed permits the banks to meet some of these demands, and limits the rise in interest rates. Under the floating rate system interest rates would shoot up and quantities would be much less elastic.

The question is: do you want more built-in stabilization in the monetary system? As in the fiscal area, built-in stabilizers are great if you are being stabilized at the right place. They are a nuisance when they stick you in the wrong place.

I am certainly not convinced that a tighter system, with stronger built-in stabilizers, is a good idea. I think the safety valve of discounting is probably good. It gives the Fed time to react to events, whether the events are its own policies or external shocks.

Third, I suspect that the willingness to throw away the discount rate reflects the quantitative bias of a large number of monetary economists. The discount rate is, or at least could



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be, a powerful regulator of interest rates. In my view the Fed cannot ignore interest rates in favor of any quantitative rules for reserves, or for M [money] in any of its various definitions. Moreover, I would like to see the Fed's control of rates strengthened, and the allocative efficiency of the banking system improved, by making the discount rate applicable to positive excess reserves.

In any case, is it wise to advise a government agency to throw away a control instrument? There may be times when a multiplicity of goals and constraints would make the lost instrument valuable. [One may maintain the same bill rate either by a high discount rate and lots of free reserves or by a low discount rate and negative free reserves. The implications for domestic activity, the balance of payments, and the cost of the public debt are not the same.]

Fourth, under most proposals, a floating discount rate would float at a fixed differential above the market rate on Treasury bills. These are some real conceptual difficulties in this idea of a "penalty rate." For how long can a bank borrow at today's discount rate? Only overnight? If so, a constant spread from the 3-month bill rate means a different thing depending on rate expectations. If rates are expected to go down, it would be worth borrowing to buy bills even at an apparent penalty rate. Not so with neutral or opposite expectations. Perhaps the penalty should be a differential above a

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market rate for comparable liquidity and maturity? Then if the discount rate is geared to the 3-month bill rate, the Fed's loan at the rate prevailing today would be for 3 months.

Sincerely,

James Tobin  
Springbrook, Wisconsin  
July 28, 1966

Henry C. Wallich

Yale University

The following principal forms of discount may be distinguished.

a. The British. There is no quantitative limitation upon the market's access to the central bank. Control of reserves is purely through the discount rate, aside from instruments other than the discount mechanism. One corollary of this is that the volume of discounting in practice will be very small. So long as the money market rate is below the discount rate, there is no incentive to borrow; when it goes above, the volume of borrowing would become very large, unless the central bank raises the discount rate.

A second corollary is that the discount rate must be changed frequently under this system, unless other instruments are used actively to keep the market rate below the discount rate. In practice the Bank of England does use open market operations very actively, at times to the extent of virtually pegging the bill rate.

A third corollary is that the discount rate is always a penalty rate with respect to money markets rates but not, of course, with respect to customer loan rates.

b. The American. The American system has in common with the British that only a small part, if any, of total bank reserves is supplied through the discount window. The great bulk comes through open market operations and the balance of payments. In the American system,

however, there are quantitative restraints, through Regulation A. Hence the discount rate need not be a penalty rate. Nor does the volume of discounting become so large, once the market rate goes above the discount rate, as it would if there were no quantitative restraints.

The American system does to the member banks what the member banks do to their customers: it rations credit. Since this seems to be a basic part of banking technique, I see no great evil in its being applied at the central bank level as well as at the commercial bank level. It must be recognized, however, as a form of market imperfection. On the other hand, a perfect market, regulated only by price, may have to undergo larger rate fluctuations than the American system. Wide fluctuations in interest rates have their own drawbacks. When the balance of payments is sensitive in one direction or another, wide fluctuations in interest rates may even be inadmissible. A rate held stable at some level to achieve a balance of payments objective, on the other hand this would greatly reduce the scope for domestic monetary policy of a monetary control mechanism relying wholly on rate and not at all on rationing.

c. Discount ceilings. Some monetary systems operate with a very large volume of permanent rediscounts. Here a significant part of total reserves originates from the discount window. The French and Japanese systems are of this sort and also several Latin American countries, such as El Salvador and Colombia. This system, generally though not always, requires rediscount ceilings. Each bank is assigned

a rediscount quota which very often it utilizes rather fully. The effective control then flows, not through the discount rate, but through the control of these ceilings. This system can be combined with a penalty rate device for discounts in excess of the ceiling, as in France.

An alternative version of this system, including the ceiling device, leads to a relatively low exhaustion of rediscount quotas, even though a substantial part of reserves is supplied by rediscounts. Germany is an example. German banks, in contrast to French, usually discount for only a fraction of their quota. Nevertheless, a substantial part of their reserves is derived from discounts. To some extent the level of discounting seems to be governed by the rate, given the reserves supplied by other policy tools. At the same time, a kind of "reluctance" to exhaust the quota seems to be operative, which makes the German system a mixture of the French, American, and British.

The French system, with its tight ceilings, requires great agility of the central bank in the "open market" to avoid extreme sudden tightness. This tendency toward an unstable degree of tightness was enhanced by the absence, until quite recently, of required reserves in France, as well as by the absence of a good money market.

d. The Canadian floating rate system had too little time in operation to permit much generalization. Discounts under such a system should always be small, since discounting will be profitable only, assuming bankers have adequate supplies of bills, when the bill rate

during the week rises above the bill auction rate at the beginning of the week by more than the margin fixed between the discount rate and the auction rate. In Canada this meant a rise of 0.25 per cent, the system operated to my recollection.

This procedure is halfway on the road to closing the discount window altogether. Its operational implications for the central bank are likely to be: (1) The impediment to access to the discount window makes money market rates more unstable. (2) If the central bank wants to avoid unstable rates, its open market operations must be agile than when discounting is feasible. With a good money market, as in Canada, and with access to the New York market, the instability of interest rates should nevertheless not be too pronounced.

e. Differential discount rates to subsidize particular purposes exist in many parts of the world. One aspect is eligibility. To make a credit instrument ineligible is equivalent to putting a very high discount rate upon it.

Another version is a preferentially low rate. Many countries practice or did practice this, and in developing countries it is the rule. The question is whether the subsidy or penalty for the discounting bank is passed on to the customer who generates the paper. Generally this will be true only if the bank is discounting or planning to discount, and possibly not even then. Thus the system presupposes that a substantial volume of bank reserves is derived from rediscounts.

From the foregoing, some conclusions can be drawn as to institutional changes in the United States.

a. I do not think that a system where discounting is regulated purely by price is desirable for the United States. Such a system implies wide swings in rates, and there is widespread resistance in this country to high rates. Wide swings required by domestic standards may be at odds with the balance of payments situation, which has shown itself to be sensitive. The American economy seems better served with a system involving some rationing.

b. The same arguments can be made against the Canadian system. It is true that this system is designed to take the central bank off the hook as far as announcement effects are concerned. But since it is the central bank which in part determines the state of the market, it cannot really plead "not guilty." Its critics certainly will not be swayed by such a plea.

c. Since the volume of rediscounts ordinarily is not great, preferential discount rates would have no great effect. It is true that we have the habit of subsidizing various sectors by Federal action influencing interest rates. I hope that, in view of the low efficacy of the discount mechanism in providing such subsidies, the Federal Reserve can stay clear of the complications, political and otherwise, that would result.

To wind up, a few selective and, I fear, superficial comments on your questions.

Question 1. The CD technique has greatly altered the nature of banking. It seems clear that this should affect discounting. So long as CD's are an alternative source of funds, the need to keep the discount window open seems to have diminished, at least for banks capable of issuing CD's.

If large banks have less need for the discount window it should be considered whether the discount window should give favorable treatment to banks too small to issue CD's, to maintain competitive equilibrium.

In the short run, however, the immediate effect of the CD's may well have been to destabilize the banking system. Certainly it is uncomfortable to see banks operate with heavy short-term maturities and no obvious sources of meeting them other than the central bank. Until we have learned more about the likelihood of "panics" under the CD system, nothing should be done that suddenly reduces banks' access to rediscounts.

Question 2. A regional differential was the original intent of the Federal Reserve Act. Experience has shown its limitations. Preferential discounting for small banks may be a logical consequence of the evolution of CD's.

Question 3. My answer to this was given above. Some degree of rationing seems desirable in the American context.



Question 4. I think this is a bad idea in principle. Purchasing municipal bonds, corporate securities, or whatever is unlikely to have a significant effect on interest rates, given the small volume the Federal Reserve could buy. To the extent that there is an effect, it involves subsidization. The problem of discrimination among issuers would be tremendous. If the Federal Reserve can resist the politicians on this, it ought to resist.

Question 5. The fact that many banks seem to have run out of unpledged government bonds is a problem, but more liquidity than for the ability to borrow. For banks that really have no free government securities, the existing range of eligible instruments ought to be sufficient. It would have to be shown that some banks are prevented from discounting within the terms of Regulation A by lack of eligible assets before changes are made. In an emergency, all reasonable assets should be eligible, as is the case now.

Question 6. This question can be answered best by people familiar with the problems of banks that come to the discount window.

Question 7. Lending to nonmember banks seems reasonable, if such banks meet certain conditions even though not meeting all. This possibility could be examined. Mutual savings banks can become members; the nature of their business suggests that they should have access to the Federal Reserve only in emergencies, but in that case liberally.

Savings and loan associations do have their own central bank, although I sometimes wonder whether the financing of long-term lending by the home loan banks is very desirable. Provision should be made for availability of funds in an emergency. This may involve some kind of recourse, direct or indirect, to the Federal Reserve.

Question 8a. Experience shown this to be useless.

8b. Probably useless as explained above.

8c. Worth examining, in order to minimize the rationing aspect of our system.

8d. As pointed out above I do not regard the Canadian technique as desirable. I question the wisdom also of other alternative methods on the general grounds that, while such methods often may give good results and frequently may protect the Federal Reserve from criticism, occasionally they may mislead very badly.

8e. The announcement effect is sometimes desirable and at other times not. I do not believe that a general formula for weakening or strengthening it should be sought. The Federal Reserve should try to make its intentions clear by accompanying statements.

8f. More frequent changes would have many advantages, such as to: (1) reduce the announcement effect, (2) minimize changes in the relationship of discount and market rates, and (3) minimize the

need to overcome effects of such changes by means of other techniques. They would also serve to loosen the relationship between discount rate and prime rate as well as time deposit rates. On the other hand, if these relationships are regarded as valuable, for instance as a means, for the Federal Reserve, of directly influencing prime rate and deposit rates, changes cannot be made frequently. The Federal Reserve probably will have to make up its mind in which direction it wants to go.

Question 9. The logical corollary of interest paid on reserves is to allow banks to pay interest on demand deposits. Given the experience with time deposit rates, I do not consider this move advisable. Certainly it would strengthen the tendencies toward concentration in American banking. Hence payment of interest on reserves seems undesirable. [In view of the rise in short-term rates since early 1966, I am compelled to question my belief as of that date that no interest should be paid on demand deposits.]

C. R. Whittlesey

University of Pennsylvania

The remarks that follow make no attempt to touch on all the questions asked. Omissions tend to reflect a feeling that the particular issues raised are less fundamental or that my views on them are likely to prove less useful than on the others.

I take discount policy to refer both (1) to changes in the rate and (2) to operations as conventionally carried on at the discount window with the Reserve Banks standing ready to meet emergency needs (construing this somewhat broadly) but trying not to become an easy source of supplementary capital for speculative or ordinary banking purposes. The first is of very little use and may be positively injurious. Discount policy in the second sense is a useful device for effecting reserve adjustments, particularly for banks less well served by more sophisticated money market techniques. It permits the other instruments to be used more freely, without providing an escape that seriously blunts their effectiveness. There is little likelihood, happily, that discounting to fulfill the role of lender of last resort in the historical sense will be necessary. But its continuing availability for this purpose should nevertheless have a valuable therapeutic--that is, tension relieving--effect.

Discount policy in the second sense is primarily a means of supplying the liquidity needs of individual banks. It would contribute to doing the same for a region to the extent that conditions affecting

the individual banks would be common to that area. (That happened a number of years ago when there were adverse weather conditions in the north central region.) The success in recent years of efforts to alter the structure of interest rates indicates that views often expressed as to the ready substitutability of different kinds of credit are exaggerated. The evidence suggests that discounting may be able to alter the allocation of credit among banks, regions, and uses. It is less clear that it ought to be used for this purpose, but I should not like to preclude the possibility.

Primary reliance should be on open market operations where the Federal Reserve wishes to play an active role, and on discounting (advances approximately as at present) where it wishes to play a passive role. Discount policy is ancillary to open market operations and not, as was once held, the other way around. While I do not foresee any urgent need for changing reserve requirements, the case against the instrument has typically been badly made. I am not in favor of abandoning the instrument and should like to see it made the subject of full and careful analysis. I should also like to see some consideration given, by study or otherwise, to the possibility of discretionary administration of the discount window. I am not particularly attracted to the idea of paying interest (at a variable rate?) on member bank deposits including excess reserves but should welcome a fuller exploration of the suggestion.

Most of the questions on the second page of the request memorandum turn on the adoption of rules of various kinds. The only

hard-and-fast rule that I favor is to avoid hard-and-fast rules. Some of the limitations and criteria suggested or implied strike me as quite objectionable (for example, Questions 6, 8a, 8c). Others might be worth experimenting with, while retaining freedom to alter or abandon them if it should seem desirable to do so (Questions 8d, 8f). Still others seem to call for elaboration with a view to indicating more precise assumptions before expressing a specific judgment (Questions 7, 8b).

In general, I am opposed to fixed rules and administrative formulas. Officials of the Federal Reserve should have authority to do a great many things, far more than at present. And they should be free from inhibiting and enervating limitations on that power, other than the sense of responsibility that goes with their office and with the knowledge that they share obligations and accountability with other agencies of the Government. I do not believe that granting greatly expanded standby powers would lead, over the long run, to more intervention and should hope that it might mean less.

"Announcement effects," including others than those related to discount rate changes, are by no means to be condemned out of hand. A great deal more study could well be given to the whole question of the psychological effects of Federal Reserve policy. The Federal Reserve compares extremely well with other central banks and with itself in the past with respect to providing the public with information. But still further progress can be made in the same direction.

In particular, there is a strong presumption, despite all that has been said against it, for fuller disclosure of Federal Reserve actions and the reasoning on which they are based.