

For Release on Delivery
Monday, October 28, 1968
10:00 a.m., E.S.T.

FEDERAL RESERVE DISCOUNT POLICY IN
PERSPECTIVE

A Paper Presented

By

Andrew F. Brimmer
Member
Board of Governors of the
Federal Reserve System

Before the

54th Annual Fall Conference
of the
Robert Morris Associates

Sheraton Hotel
Philadelphia, Pennsylvania

October 28, 1968

FEDERAL RESERVE DISCOUNT POLICY IN
PERSPECTIVE

By
Andrew F. Brimmer*

Changes in the discount rate and policies governing discounting together constitute the oldest instrument of monetary management. Yet, discount policy remains today one of the most useful tools available to the central bank. At the same time, the discount mechanism provides for the individual bank an opportunity to meet temporary reserve needs which are inherently difficult to anticipate. Moreover, because of the contact through the discount window, the Federal Reserve and member banks have a direct avenue of communication; thus, the System has a ready means of keeping abreast of trends and developments in the banking system and in the money market. Member banks in turn can keep in touch with System thinking with respect to monetary policy.

Compared with other principal instruments of monetary policy, the discount mechanism has several advantages (although these are clearly not so great as to justify abandoning the other tools). In the first place, the discount arrangement allows the central bank to serve as a lender of last resort through the monetization of a wider range of debt than would be the case if reliance were solely on open market operations.

*Member, Board of Governors of the Federal Reserve System. I am indebted to several members of the Board's staff for assistance in the preparation of this paper. Miss Elizabeth L. Carmichael supervised the search of the records to establish the order of Reserve Banks' requests for approval of discount rate changes. Miss Priscilla Ormsby helped with the summary of recommendations and issues raised by the proposal to revamp the discount mechanism, and Miss Mary Ann Graves calculated the lags in discount rate changes at Reserve Banks.

Secondly, it enables the central bank to make reserves available directly and immediately to individual banks most in need of assistance. This could not be accomplished via open market operations. Finally, the existence of the discount mechanism permits open market operations or changes in reserve requirements to be undertaken much more vigorously, since the impact on individual banks can be cushioned through borrowing from the central bank.

This historic role of the discount function is widely appreciated. However, much of the current interest in this instrument stems from the role it may play in the future. As is generally known, the Federal Reserve has underway a basic re-examination of the discount mechanism. This re-appraisal centers on a set of recommendations advanced by a special System Committee which spent about three years on a comprehensive inquiry into the performance of the discount instrument. Although the Committee's proposals have been available for public comment since mid-summer, it may be well to summarize them here. Furthermore, it may be particularly helpful to sketch the kind of schedule the Federal Reserve Board may follow, if it decides to revamp the discount function along the lines suggested by the System Committee.

In the meantime, however, a number of questions can be raised about the current functioning of the discount mechanism which are of major significance for the execution of monetary policy under present circumstances.

For example:

- When the Federal Reserve Board approves a change in the discount rate at one or more Reserve Banks, do other Banks adjust their discount rates in a manner sufficiently timely to insure that a consistent monetary policy will be followed throughout the

System? The evidence accumulated since the mid-1950's leaves some doubt in my own mind.

- Is the present statutory authority of the Federal Reserve Board to review and determine the discount rates established by Reserve Banks really meaningful? Interpreted literally, I personally think it is not. Yet, in the context of the actual experience in the System over the years, I am convinced that the ultimate responsibility of the Federal Reserve Board for the discount rate has enhanced the efficiency of the discount mechanism.
- Nevertheless, several steps could be taken (aside from the basic revamping now under consideration) to strengthen the contribution of discount policy to monetary management. For instance, the existing machinery for System-wide consideration of discount policy should be further developed, and a much clearer policy should be evolved with respect to discount rate adjustments once the Federal Reserve Board has approved a rate change for one or more banks. A fuller explanation of rate changes by the Board would enhance the public's understanding of the aims of monetary policy.

Finally, it may be helpful to examine the pattern of member bank borrowing from Federal Reserve Banks during the current period of monetary restraint, compared with the experience in 1966.

Re-examination of the Discount Mechanism

As I mentioned above, the Board has recently published for comment the report of a System Committee recommending changes in the Federal Reserve discount mechanism. In addition to reflecting almost three years of intense study throughout the System, the report was strengthened by contributions from a number of outside sources. While the Board at this stage has not made any binding decisions on the recommendations, the report obviously represents one of the most important

documents of recent years in the field of banking and monetary policy, and the proposals it contains will be weighed seriously.

Very briefly, the proposed revamping of the discount arrangement would establish four categories of credit extension to member banks. Perhaps the most innovative of these would be the "basic borrowing privilege;" this would enable each soundly operated member bank to borrow a limited amount of funds from its Reserve Bank on request in as many as half its weekly reserve periods. The second category would be the "seasonal borrowing privilege;" under this plan a member bank foreseeing seasonal needs for credit exceeding some specified minimum could arrange for loans from its Reserve Bank to meet that excess. These arrangements would be more explicit and more liberal than currently provided and, it is hoped, would be of significant help to banks with wide seasonal swings in fund availability.

Thirdly, it is fully expected that member bank needs for discount credit would arise, perhaps frequently for some banks, which because of their size or nature could not be accommodated under either of these borrowing privileges. In such cases, short-term adjustment credit would continue to be available under essentially the same kinds of administrative procedures as currently apply. The fourth category of credit to member banks might be termed emergency credit. Such credit would be available, as at present, to member banks caught in special regional or local adversities for as long as reasonably needed for the banks to work out of their circumstances. In addition, the report reaffirms the role of the Federal Reserve as "lender of last resort" to the entire financial system in the event of serious and widespread emergency.

A final major new idea proposed by the report is to make the discount rate -- the interest rate charged by Federal Reserve Banks on their loans to member banks -- more flexible than heretofore and thereby to make it a more significant influence on the volume of borrowing.

As I mentioned, the Board has not yet taken any action on these proposals. We are currently receiving and analyzing comments on them from member bankers and from a variety of other interested groups. On the whole, the comments we have received so far have been quite sympathetic to the over-all proposal. Of course, there have been questions raised and changes suggested with regard to some of the specific features of the recommendations. Views expressed within the System have been similar. There is general sympathy with the proposal as a whole, but we are also continuing to consider and study some of the details.

Our current timetable calls for formal Board action to publish in the Federal Register by mid-winter a proposed revision of our Regulation A covering borrowing by member banks. This publication would then be followed by another period for public comment on the revised proposal; it would also represent a concrete action on which a Congressional review of the matter could be based, if that is desired. Thereafter, we would hope that a final agreed-upon version of the new Regulation A would go into force. While I cannot be definitive about the schedule, it is expected that the process will be completed before the end of next spring.

Looking at the proposal against the background of monetary policy in general, I can see two major issues which deserve special attention in any review. The first of these is the relationship of the redesigned

discount mechanism with Federal Reserve open market operations. The latter tool is presently the preponderant means of System reserve provision and the leading edge of monetary policy implementation. This dominant role would not be changed under the proposal. However, the suggested redesign would be expected to increase somewhat the volume of reserves injected through the discount window, chiefly as this tool assumes an increased part of the burdens of intra-monthly and seasonal reserve adjustment.

We believe that this partial realignment of the two tools will result in their operating in a more complementary fashion than they do now. As the discount window provides for an increasing part of necessary day-to-day reserve adjustment, for which the initiative would then rest largely with the individual member banks, System open market operations could be undertaken with greater attention to longer-run concerns. The generally higher level of borrowings which this would entail is not conceived to mean a corresponding increase in total reserves or a loss of control in this area. The Federal Reserve would retain the ability to bring about and maintain the desired level of over-all credit availability (taking into account the relatively small increase expected in credit outstanding at the window) through purchases and sales of securities in the open market. Thus, it is expected that the proposed changes in the discount mechanism would not cause any special problems for open market operations. In fact, the changes would increase the long-run effectiveness of such operations.

The second major issue which I would cite is that of discount rate policy. The level and the role of this rate are important for a

variety of reasons, not the least of which is insuring that discounting and open market operations, in fact, complement one another as I have just outlined. The proposal for redesign of the discount mechanism contemplates, as I mentioned, that the discount rate will play an increased role as an influence on the volume of member bank borrowing. This would come about as a result of a rate kept reasonably closely in line with the movements in other money market rates. Such a policy would require more frequent changes in the discount rate than have typically been made in the past. In a period of changing financial conditions and rapidly moving market rates, changes might be necessary as often as every several weeks.

This increase in the frequency of discount rate changes will present challenges to both the Federal Reserve and the financial community -- the former with regard to actually accomplishing the changes and the latter with regard to learning to interpret what the changes mean under the new rules. As far as our own role in this area is concerned, the proposal recommends that the current mechanics of setting discount rates be retained. Thus, the rates in the various Districts would continue to be set by the Reserve Bank Boards of Directors, subject to review and determination by the Board of Governors. The more frequent use of this mechanism would call for more active communication within the System than currently obtains in setting rates. But, as I mentioned at the outset, it would be beneficial to develop such communication independently of the outcome of the proposals to reshape the discount mechanism.

The proposed arrangement has no special provisions to insure uniformity of discount rates from District-to-District. While the proposal

assumes a single System-wide discount rate under most circumstances, the Committee did not feel it was necessary to include any special arrangements for achieving this result. Thus, under the proposal, there would be a possibility of short-run inter-District differences. However, the Committee thought that the use of the requirement for periodic Board of Governors approval of each discount rate could be relied upon, if it were ever to be needed to resolve non-uniformities among Districts. In any case, the Committee felt it is somewhat unrealistic to contemplate the maintenance of wide inter-District discount rate differentials for a long time in today's highly interdependent economy. I personally share this view, and I think a policy should be evolved to cope with this possibility -- short of relying solely on the Federal Reserve Board to review and determine the rate .

The proposed movement to a more flexible discount rate would undoubtedly impose some burden of readjustment on participants in the financial community. Actually, once the new procedures are established and recognized, the typical discount rate movements, generally following market rate movements, should become regarded as normal and self-explanatory. However, I recognize that in the past a change in the discount rate has been a comparatively infrequent and meaningful event -- even if that meaning was sometimes cloudy and debated -- and I assume that for a time there would be attempts to read equal significance into the smaller and more frequent changes. One of the goals of these more frequent changes would be a dampening of these often troublesome announcement effects, and the adoption of this recommendation might be helpful in this regard. On the other hand, as I

stressed above, a better job of explanation by the Board of discount rate changes needs to be done in any case.

Lags in Reserve Bank Discount Rate Changes

Once the Federal Reserve Board has approved a change in the discount rate for one or more Reserve Banks, the remaining Banks normally follow suit rather quickly. Consequently, a situation is ordinarily avoided in which different discount rates would prevail at various Federal Reserve Banks. However, the period over which adjustments in discount rates have occurred has not been uniformly short. From time-to-time, one or more Reserve Banks have lagged considerably behind others in establishing the new rate. The most recent example was provided by the reduction in the discount rate from 5-1/2 per cent to 5-1/4 per cent in mid-August of this year. Initially, the lower rate was established only by the Federal Reserve Bank of Minneapolis, and three days later the Richmond Bank also fixed the lower rate. However, a week passed before another four Banks made the adjustment, and still another week lapsed before the last four Banks took the same step. Although this situation did not produce any concern about artificial segmentation of the money market or about the possible disturbance of the flow of funds, it did help to create doubts and uncertainty. A similar situation arose on a few other occasions in the past.

In order to put these events into better perspective, an examination was undertaken of the pattern of adjustment to discount rate changes

among Federal Reserve Banks during the years 1955-1968.^{1/} The general pattern is displayed in Table 1.

During the nearly 14 years covered, the discount rate level changed 26 times. Eight of these changes were decreases and 18 were increases. About two-thirds of the adjustments (17) involved changes of 1/2 per cent, and the remainder (9) were for 1/4 per cent. However, in the last decade (since August, 1958), all discount rate adjustments -- except the most recent one in August of this year -- involved changes of 1/2 per cent.

It will also be noted that there has been considerable variation in the amount of time the Reserve Banks have taken to bring their discount rates into line once a change has been approved by the Federal Reserve Board. In the typical case, about five Banks posted rate changes effective on the initial day, and others followed fairly promptly. However, in five cases, only one Bank made the change initially. On eight occasions, one or more Banks allowed 14 days to elapse before making the adjustment. In three instances, the time span was 21 days, and in one case four Banks did not make the change for 28 days. On that same occasion, two Banks took even longer -- one waiting 35 days and the other 39 days.

In an attempt to summarize this experience, weighted averages of the time lag (measured in days) involved in these adjustments were calculated, using as weights the number of Reserve Banks posting the change on a given day. The calculations were performed for all 12 Reserve Banks taken

^{1/} The analysis began with 1955 because that was the year of the last major revision in the Federal Reserve Board's Regulation A governing discounting by member banks.

TABLE 1

Pattern of Adjustment to Discount Rate Changes, Among Federal Reserve Banks,
1955-1968 (Number of Banks)

Dates of		4-14	8-4	8-26	11-18	4-13	8-24	8-9	11-15	1-22	3-7	4-18	8-15	10-24	3-6	5-29	9-11	6-3	8-12	7-17	11-24	12-6	4-7	11-20	3-15	4-19	8-16
Initial		'55	'55	'55 ^a	'55	'56	'56 ^b	'57	'57	'58 ^c	'58	'58	'58	'58	'59	'59	'59	'60	'60	'63	'64	'65	'67	'67	'68	'68	'68
Change:																											
	0	1	4	1	6	11	4	4	4	1	3	5	1	5	4	5	8	2	4	7	5	2	10	10	10	4	1
	1	7	5	.	.	.	.	.	.	6	.	.	.	.	.	.	.	.	.	3	1	2	.	.	.	.	.
	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	2	.	1	.	.	6	1	.	.	.	.	.	3	.	1	.	4	.	1	.	1	1	1
	4	.	1	1	3	.	4	3	1	.	1	2	.	1	1	2	.	.	1	.	.	7	.	.	.	2	.
	5	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.	.	1	.	2	1	.	1	1	.	.	.	.	.	.	2	.	.	.	.	.	.
	7	.	.	1	.	1	1	.	3	.	5	3	1	1	4	2	1	8	3	1	.	1	1	1	1	5	4
	8	3	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	1	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.	1	1	.	.	.	.	.	.	.	1
	12	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
	13	.	.	.	.	.	.	.	.	.	.	1	.	1	.	1	.	.	.	.	.	.	.	.	.	.	1
	14	.	.	6	.	.	.	2	3	.	1	.	1	1	.	2	.	.	.	.	.	.	.	.	.	.	4
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	17	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	18	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	21	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.	.	.	.	1	.	.	.	.	.	.	.
	22	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	23	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	24	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	26	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	27	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	28	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	1	.	.	.	.	.	.	.
	29	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	31	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	33	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	34	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	35	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	37	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	38	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	39	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Weighted		4.1	1.6	11.8	1.9	0.6	2.6	5.7	7.0	5.7	5.2	5.3	21.7	5.5	4.8	5.3	1.3	6.4	7.3	1.8	2.1	3.3	0.8	0.7	0.8	3.8	9.2
Average:																											
(Days)																											

^aThe Cleveland Bank did not raise its rate. In the previous period, they raised it a full 1/2 point.

^bThe Minneapolis and San Francisco Banks did not raise their rates. In the previous period, they raised them a full 1/2 point.

^cThe San Francisco Bank did not lower its rate. In the subsequent period, they lowered it a full 1/2 point.

NOTE: Circled figures indicate in what group the New York Bank can be found.

together, and separate calculations were done for the Federal Reserve Banks of New York, Chicago and San Francisco, the three largest banks in the System. In addition, the time lag was estimated separately for instances of discount rate increases and instances of rate reductions. The results are shown in Table 2.

Several conclusions stand out in these results. On the whole, Reserve Banks do adjust their discount rates rather quickly after the initial announcement by the Federal Reserve Board has signaled a change in the direction or intensification of monetary policy. During the last 13-1/2 years, the average time lag before all Banks adopted the new rate was just under 5 days. For the Federal Reserve Bank of New York and Chicago, the average time lag was somewhat shorter -- being about 4 days; at the San Francisco Bank it was slightly over 5 days, or somewhat longer than the average for the System as a whole.

As a group, the Federal Reserve Banks seem to bring their discount rates into line somewhat more rapidly when rates are increased than when reductions are effected. For all Banks combined, the average time lag for rate increases was 4.4 days, compared with an average of 5.9 days for occasions when discount rates were reduced. The pattern for the Chicago and San Francisco Banks was roughly the same as that for the System as a whole. The New York Bank generally changed its discount rate more quickly in cases of rate reductions than in those instances when rates were raised.

In Table 3, the time lags in rate adjustments for these three Banks and for all Reserve Banks combined are shown more fully. Again the

Table 2. Time Lags in the Adjustment
of Federal Reserve Bank
Discount Rates, 1955-1968
(Number of Days)

<u>Type of Change</u>	All Federal <u>Reserve Banks</u>	<u>Selected Banks</u>		
		<u>New York</u>	<u>Chicago</u>	<u>San Francisco</u>
All Changes	4.8	3.9	4.0	5.2
Rate Increases	4.4	4.4	3.7	4.1
Rate Decreases	5.9	2.9	4.6	9.7

NOTE: Time lags are weighted averages of days involved in the adjustment to discount rate changes, using as weights the number of Federal Reserve Banks posting the change on a given day.

Table 3. Distribution of Discount Rate Adjustments,
Ranked by Size of Time Lags (in days)
1955 - 1958

Period (Effective date of initial rate change)	Rate Change	New Rate	Rate Adjustment Time Lag (in days)			
			All Reserve Banks*	New York	Chicago	San Francisco
8-15-58	+1/4 %	2 %	21.7	28	21	0
8-26-55	+1/4	2-1/4	11.8	14	14	14
8-16-68	-1/4	5-1/4	9.2	14	7	14
8-12-60	-1/2	3	7.3	0	7	21
11-15-57	-1/2	3	7.0	0	14	14
6- 3-60	-1/2	3-1/2	6.4	7	7	0
8- 9-57	+1/2	3-1/2	5.7	14	0	6
1-22-58	-1/4	2-3/4	5.7	2	2	**
10-24-58	+1/2	2-1/2	5.5	14	7	13
4-18-58	-1/2	1-3/4	5.3	0	0	13
5-29-59	+1/2	3-1/2	5.3	0	0	13
3- 7-58	-1/2	2-1/4	5.2	0	0	6
3- 6-59	+1/2	3	4.8	0	0	6
4-14-55	+1/4	1-3/4	4.1	1	8	8
4-19-68	+1/2	5-1/2	3.8	0	7	0
12- 6-65	+1/2	4-1/2	3.3	0	0	4
8-24-56	+1/4	3	2.6	0	0	**
11-24-64	+1/2	4	2.1	0	0	3
11-18-55	+1/4	2-1/2	1.9	0	0	0
7-17-63	+1/2	3-1/2	1.8	0	2	2
8- 4-55	+1/4	2	1.6	1	0	1
9-11-59	+1/2	4	1.3	0	0	0
4- 7-67	-1/2	4	0.8	0	0	0
3-15-68	+1/2	5	0.8	7	0	0
11-20-67	+1/2	4-1/2	0.7	0	0	0
4-13-56	+1/4	2-3/4	0.6	0	7	0
Average Time Lag			4.9	3.9	4.0	5.2

* weighted average

** periods of split rates where San Francisco did not change its rate.

greater tendency for the Banks to respond more rapidly when rates are advanced is clearly demonstrated. The explanation for this behavior pattern is not readily evident. However, from an operating viewpoint a Reserve Bank might be reluctant to maintain its existing rate once one or more other Banks have posted higher discount rates. Behind this reluctance may be the apprehension of exposing itself to excessive borrowing by member banks -- perhaps to satisfy an enlarged demand for funds by customers in Districts where interest rates may have advanced in response to higher discount rates. The Reserve Bank would not necessarily face the same situation when discount rates are reduced in one or more other Districts.

On the other hand, from the viewpoint of monetary management, the asymmetrical response of Federal Reserve Banks to changes in the discount rate is not a matter of indifference. Given the breadth and resiliency of our national money market, once it has been decided that a change in the discount rate is appropriate, it is obviously desirable that the impact of the new rate be transmitted as expeditiously as possible to all sectors of the economy. The maintenance of split discount rates for any length of time -- especially when the large Reserve Banks are among those whose rates remain unchanged -- would clearly make it more difficult to achieve the objective sought.

Still another conclusion can be drawn from the above data, especially from Table 1. It appears that the New York Bank is typically among the first to adjust its discount rate when a change has been decided

upon. Yet, it is also clear that, if the New York Bank is reluctant to make the change, it is likely to delay for two weeks or more -- and a few other Banks may well follow suit. Thus, the New York Bank was included in the lead group during 16 of the 26 discount rate changes over the period. There were four occasions during which 4 or more Banks delayed adoption of the new rate for 14 days or more, and the New York Bank was among the last on three of these instances.

Potentially Adverse Effects of Split Discount Rates

As I observed above, under most circumstances, the existence of different discount rates at Federal Reserve Banks for a short while is of no consequence from the point of view of monetary management. So, while the pattern of rate adjustments sketched above may be interesting, it is generally not a cause for deep concern. However, on a few occasions in the past this has not been the case. Once in 1955 and again in 1958, a substantial number of Reserve Banks -- for a fairly long time -- resisted an increase in the discount rate. On both occasions, the Federal Reserve Board felt the change was needed and demonstrated its conviction by approving the establishment of the higher rate by at least one Reserve Bank. In both of these earlier periods, participants in the financial markets became aware of the differences within the System over the appropriateness of the particular action. As a result, confusion and uncertainty over the

probable course of monetary policy prevailed for some time. The third situation arose this year and centered on the discount rate changes effective in mid-March and in mid-August, especially on the latter. Putting aside the change in March of this year, the other three occasions represented the longest delays among the 26 discount rate adjustments made during the last 13-1/2 years. The first experience, in August and September, 1955, involved a weighted average time lag of 10.8 days; the second period, in August and September, 1958, involved a weighted average time lag of 21.6 days, and the most recent episode involved a weighted average time lag of 9.2 days. Each of these experiences is reviewed briefly. The following comments on the two earlier are based primarily on the published record of the Federal Open Market Committee. For the most recent case, they reflect my own personal experience and observations.

In the summer of 1955, the Federal Reserve concluded that the recession of 1953-54 was over, and a period of sustained expansion lay ahead. However, there was a difference of opinion within the System about the vigor of the recovery and about the timing of actions and the steps needed to restrain the growth of bank credit. The situation was further complicated by the Treasury's need to finance a sizable amount of maturing debt. Against this background the Board of Directors of the Federal Reserve

Bank of Cleveland concluded in late July, 1955, that economic conditions in their District necessitated an increase in the discount rate by 1/2 per cent to 2-1/4 per cent. However, before they established this rate, the President of the Cleveland Bank inquired informally as to the views of the Federal Reserve Board. The Board was inclined to support such a step but it thought it best that the Treasury's reaction be ascertained in view of the fact that a major Government financing effort had just been concluded. Although Treasury was sensitive to the impact of such a move on the Government securities market, and thought a change of 1/4 per cent would be preferable, it accepted the proposed change of 1/2 per cent as necessary to combat inflation. Satisfied that Treasury could go along with the change, the Board informally indicated to the Cleveland Bank that an increase of 1/2 per cent was acceptable. With this assurance, the Cleveland Bank on July 27 established a new discount rate of 2-1/4 per cent and formerly requested the Board's approval. However, the Board felt that the matter might better be postponed until it could be discussed from a System viewpoint, which could be done at the August 2 meeting of the Federal Open Market Committee (FOMC).

At this meeting, it developed that all except one of the Reserve Bank Presidents strongly opposed a 1/2 per cent increase in the discount rate. On the other hand, all of the other 11 Presidents, except one, supported an immediate increase of 1/4 per cent (and the one exception would have accepted it reluctantly), putting the rate at 2 per cent. They thought this step should be re-inforced by a more restrictive open market

policy, and another rate increase of 1/4 per cent might be made later in the fall if economic conditions continued to strengthen. The opposition to the one-step increase, led by the President of the Federal Reserve Bank of New York, rested partly on concern over its impact on the Government's securities market and partly on doubts about the pace and sustainability of recovery. Among Federal Reserve Board members, however, there was a conviction that inflation was the real issue to be confronted, and they were willing to risk some weakness in the securities market -- if that were the cost of combating inflation. The Board was strongly supported by its staff -- which, in fact, advocated the 1/2 per cent increase as a move to transform the discount rate into a penalty rate. At the conclusion of the August 2 FOMC meeting, the System remained deeply split.

While this internal debate was in progress, knowledge of it seeped into the public domain, and the effects were considerably adverse. This was especially true in the Government securities market which was still trying to digest the recent Treasury debt offering. The deterioration in the market situation persuaded the Treasury to reverse its early indication that an increase of 1/2 per cent would be acceptable. This shift in the Treasury's position apparently strengthened the reservation expressed by those opposed to the move.

Nevertheless, on August 3, 1955, one day following the FOMC meeting in which the depth of the System policy split was revealed, the Federal Reserve Board approved a 1/2 per cent increase in the discount rate at the

Federal Reserve Bank of Cleveland, raising it to 2-1/4 per cent, effective August 4. However, no other Reserve Bank established the same rate. Instead, eight Banks (including New York) raised the rate by 1/4 per cent to 2 per cent, and the Board approved all of these -- five effective August 5 and the other three effective between that date and August 12. Two Reserve Banks made no change at all in their discount rate at this time.

Then, following another meeting of the FOMC on August 23 during which the split rate situation was discussed further, the second 1/4 per cent change in the discount rate was made. Effective August 26, the Federal Reserve Bank of Atlanta (which had not raised its rate to 2 per cent) posted a rate of 2-1/4 per cent. Other Banks began to move into line gradually. However, six Banks (including New York) waited two weeks, and one Bank waited 18 days. So, it required almost two months to resolve the issue of what discount rate should be set for the System.

In retrospect, it is clear that the Federal Reserve Board's assessment of the economic situation was correct, although it is hard to express a judgment about the weight which should have been assigned to the problem of Treasury financing. But, in the context of this experience, the differing appreciation of economic developments on the part of the Federal Reserve Board and the Boards of Directors of the Reserve Banks -- to a considerable extent reflecting difference in the amount and quality of information available to each -- was clearly an obstacle to the determination of monetary policy. While a greater awareness of current developments would not necessarily result in the same judgments on monetary actions, it

would enable such different judgments to be introduced into the policy process without being hampered by questions of uneven information.

To some extent, the second split discount rate episode of August and September, 1958, closely paralleled the 1955 experience. This time, the economy was recovering from the 1957-58 recession, and a policy of monetary ease had been in effect since late in 1957. However, the pace of recovery was quite uneven among Federal Reserve Districts. Moreover, in the nation at large, considerable excess capacity still existed, and the unemployment rate in August, 1958, was over 7 per cent. Yet, the economy was advancing on a broad front, with gains in industrial production and construction being particularly sharp. Since mid-June wholesale prices had been rising and by August exceeded the peak reached in March, 1958. Partly reflecting these improved economic conditions -- but also the prospect of a large Federal deficit for that fiscal year -- the Federal Reserve Board concluded that there had been a sharpening of expectations with regard to a renewal of inflationary pressures. During mid-July, monetary policy was diverted temporarily to the correction of a disorderly condition in the Government securities market, and, effective August 5, margin requirements had been raised to 70 per cent to dampen the sharp expansion of stock market credit. Although open market policy had been modified at the end of July and in early August, 1958, to recapture and avoid redundant reserves, there was no general expectation within the Federal Reserve System that a policy of monetary restraint was called for in the near future.

Thus, the surprise was considerable when the Federal Reserve Bank of San Francisco on August 13, 1958, raised its discount rate by 1/4 per cent

to 2 per cent and requested approval from the Federal Reserve Board. The reaction at the Board was not unfavorable, but there was also a feeling that it would be preferable to postpone the decision until the matter could be discussed at the next FOMC meeting set for August 19. However, within a day following the action by the San Francisco Directors, rumors asserting that they had acted were circulating widely. Under the circumstances, the Board approved the new rate effective August 15.

At the FOMC meeting of August 19, all Board members present supported their prior approval of the rate increase at the San Francisco Bank. However, only two Reserve Bank Presidents (other than the San Francisco representative) endorsed the move; one President gave reluctant support, and one made no comment on the rate change. On the other hand, six Reserve Bank Presidents and the First Vice President of the Federal Reserve Bank of New York expressed strong opposition to raising their own discount rates at that time. While several of them thought a rate advance might be appropriate later in the year, they generally held that the recovery from the previous recession had not gone far enough to justify such a move during the summer.

Following the Board's approval of the rate change at the San Francisco Bank, a week passed before another Bank made the move. Two weeks after the initial change, only three additional Banks had posted the higher discount rate, while eight still maintained their previous rate. In the meantime, the split rate situation again led to market uncertainty and confusion.

It was against this background that the next meeting of the FOMC was held on September 9, 1958. By this time, two more Reserve Banks had

adopted the higher rate, but six still had not done so. At this meeting, the difference in view between the Board members and some of the Presidents was -- if anything -- even sharper. Three Presidents still felt that an increase in the discount rate was not called for in their Districts, and two Presidents stated they would -- reluctantly -- recommend the change to their Directors in the near future. This time, however, unlike the situation in 1955, virtually all of the Board members took the view that the persistence of split discount rates could not be defended and strongly urged the remaining Banks to bring their rates into line at the earliest opportunity. The need to do this, some Board members suggested, was supported not only by continued strengthening of economic activity and the growing threat of inflation but also by the prospect of another Treasury financing operation in the early fall.

Under these circumstances, three of the remaining Banks (including New York) raised their discount rate within a few days following the FOMC meeting of August 9. However, by this time, four weeks had passed since the rate was changed initially by the San Francisco Bank. Nevertheless, one Reserve Bank (Philadelphia) delayed the step for a total of 35 days, and the last Bank to move (Boston) delayed for a total of 39 days.

The third episode to be discussed occurred this year. As mentioned above, this experience is still unfolding, and one can say much less about it than was true of the events in the 1950's. It will be recalled that, effective last August 16, the Federal Reserve Board approved a reduction in the discount rate by 1/4 per cent -- from 5-1/2 per cent to 5-1/4 per

cent -- at the Federal Reserve Bank of Minneapolis. In approving the change, the Board stressed that it was primarily technical and was undertaken to bring the discount rate into alignment with money market conditions -- which had strengthened somewhat in response to the adoption of the various fiscal restraint measures last June. However, there was some feeling in the financial community (some of which was shared within the Federal Reserve System) that no reduction in the discount rate was necessitated at the time. Reflecting this sentiment, only one other Bank changed its discount rate within a few days. About a week after the initial change, four additional Banks adopted the slightly lower rate. The last four Banks (New York, Atlanta, St. Louis and San Francisco) waited two weeks to establish the new discount rate.

Again, because this experience is still so close to us, I think it is best to refrain from saying much more about it. However, it will be recalled that the delayed response of some of the Reserve Banks was a matter of considerable comment. Although other factors were involved, this delay also contributed to some uncertainty and confusion in the financial community. In my personal opinion, the latest situation was heightened to some extent by the experience last winter when the discount rate was raised by 1/2 per cent to 5 per cent at ten Reserve Banks, effective March 15. A few days later, another Bank adopted the same rate. This left only one Bank (New York) at the old rate of 4-1/2 per cent which had been set following the devaluation of Sterling last November. The mid-March increase of 1/2 per cent in the discount rate, it will be recalled, was one of several moves designed to

cope with the extremely difficult situation then prevailing in the gold and foreign exchange markets. These moves included closing out the London Gold Pool and the establishment of the two-tier market for gold. There has been considerable comment on the fact that the New York Bank was not included when virtually all the other Reserve Banks made the move on the initial effective date of the change. Some of this public comment has suggested that the Directors of the New York Bank felt that an increase in the discount rate larger than 1/2 per cent was required in light of the serious international situation. Without focusing on whether these comments are well-grounded or not, I would like to stress that the information available to the Federal Reserve Board about the other elements in the package of measures designed to deal with the gold and foreign exchange problem at the time could not be shared fully with the Directors of the Federal Reserve Banks. By their very nature, these measures involved Government-to-Government proposals which had to be closely held -- even among Government officials. While I obviously cannot know how different Reserve Bank Directors actually viewed that experience last March -- nor how they would have reacted with respect to the discount rate if they had known more about the other proposals under consideration -- I did want to call attention to the fact that sometimes changes in the rate are necessary for reasons (especially those associated with international developments) that only become completely apparent later. It should be noted that the discount rate was raised in the latter part of April to 5-1/2 per cent but because of circumstances which had developed subsequent to the March action.

But let me emphasize again that I believe such occasions are likely to be rare. Under most circumstances, I would anticipate that proposals to change Reserve Banks' discount rates would be established by their Directors

and submitted to the Board for approval in the usual way. Again, in most situations, the amount of time the Banks take in responding to discount rate changes need not be a matter of concern to the Federal Reserve Board.

A Unique Case of Discount Rate Determination

Having reviewed the above instances of delays in some Reserve Banks' adjustment to discount rate changes, one might naturally ask why the Federal Reserve Board did not exercise its statutory authority to review and determine the rate. This is especially true with respect to the situation that developed in the summer of 1958 when the Board was virtually unanimous in its conviction that all Reserve Banks should bring their discount rates into line more promptly. Actually, it appears that the question of using such authority was never considered by the Board.

In fact, there has been only one occasion in the entire history of the System when the Federal Reserve Board determined the discount rate over the opposition of the Board of Directors of a Reserve Bank. That was during the late summer of 1927, or 41 years ago, and it involved the Federal Reserve Bank of Chicago. Well before then, however, the right of the Board to take such an action had been questioned by the Federal Reserve Bank of New York, but an opinion of the U.S. Attorney General in 1919 had definitely established the Board's legal authority in the matter. Yet, until 1927, the Board had not actually found it necessary to use it.

The experience concluding in the determination of the Chicago rate on September 6, 1927, began at the end of the preceding July, when a decision was made to bring about a national policy of lower interest rates through a

System-wide reduction in Federal Reserve Bank discount rates (then called re-discount rates) from 4 per cent to 3-1/2 per cent. At a joint meeting of the Federal Reserve Board and the Open Market Investment Committee (OMIC) on July 27, it was concluded that lower interest rates in the United States were appropriate in light of both national and international developments. To insure that a 3-1/2 per cent rate would be effective, it was suggested that it might be desirable to make further purchases of a substantial amount of securities.

At that time, the OMIC was composed of five Governors of the Federal Reserve Banks (now called Presidents), including the Governor of the New York Reserve Bank. In addition to the Committee members, the Governors of the St. Louis and Minneapolis Banks also attended.

While there was some slackening in U. S. business and commodity prices were continuing to decline, the immediate objective was to widen the spread between interest rates in New York and London. It was felt that, because of the drain of gold from a number of European central banks, rates in Europe might rise significantly during the coming months. The German and Australian central banks had already raised their lending rates, and there was the possibility of a 1 per cent advance in the Bank of England's rate. If European rates were to rise further, the effects on U.S. exports would be adverse. To help forestall this development, a policy of seeking lower interest rates in the U.S. was adopted. Although it was recognized that conditions in some interior Districts (judged by the small volume of rediscounting) might not appear to indicate a demand for a rate reduction -- and some bankers opposed such a move -- all participants in the joint meeting agreed that national objectives called for the move. At the conclusion of the meeting, the Board took the unusual step of directing that the minutes

of the meeting and the report of the Chairman of the OMIC be sent on a confidential basis to each Federal Reserve Bank for presentation to its Board of Directors.

In preparation for the moves to implement the decision to strive for a System-wide interest rate policy, the Federal Reserve Board on July 28 voted to delegate to a member or members of the Board present to approve any recommendations received from Reserve Banks to reduce the discount rate from 4 per cent to 3-1/2 per cent. The expected response came quickly from some Banks. The Federal Reserve Bank of Kansas City led the move with a rate reduction effective August 2. By mid-August, all the Reserve Banks -- except four -- had adopted the lower rate. The four maintaining the 4 per cent rate were Philadelphia, Chicago, Minneapolis, and San Francisco. (It will be recalled that the Governor of the Minneapolis Bank had participated in the joint Board-OMIC meeting and had not voiced objections to the policy decision).

In the case of each of these four Banks, their Boards of Directors or Executive Committees met during the month of August to consider the proposed rate reduction and explicitly voted not to adopt it. In each instance, it was argued that conditions in their respective Districts did not call for a lower rate. In light of the action by the other three Banks (none of which changed its rate until after the Chicago rate was determined) it may not be readily apparent why the Board felt so strongly about the situation at the Federal Reserve Bank of Chicago.

On closer examination, however, the Board's concern is quite understandable. Then, as now, Chicago was the principal financial center

in the country behind New York. It was widely felt that if a national trend toward lower interest rates were to be achieved, the Chicago Reserve Bank had to assist in bringing it about. Beyond that fact, however, the Directors of the Chicago Reserve Bank reacted early, frequently -- and negatively -- to the proposition. On July 29, two days after the basic policy change was adopted by the Federal Reserve Board and the OMIC, the Chicago Board voted not to reduce its rate from 4 per cent to 3-1/2 per cent. On August 5, the Executive Committee of the Chicago Board also voted to maintain the 4 per cent rate. Chicago's full Board met on August 26 and again voted against a reduction, and this was followed on August 30 by another vote of the Executive Committee to retain the 4 per cent rate.

By this point, the Federal Reserve Board, acting through its Executive Committee, decided that enough time had been allowed the Chicago Reserve Bank to bring its rate into line. So on August 30, the Board's Executive Committee voted formally not to approve re-establishment of the 4 per cent rate which the Chicago Directors had voted on August 26. On August 31, the Chairman of the Chicago Bank was informed by telephone of the Board's action. The Chairman reported that he was reasonably confident that a favorable vote to reduce the rate would be forthcoming at the regular meeting of his Bank's Executive Committee set for September 9, until which time he was hopeful that the 4 per cent rate would be allowed to stand. He was told that any change would have to be made by September 2.

A special meeting of the Chicago Bank's Executive Committee was held on September 2, but only three of the six members attended. The Chairman of the Chicago Bank's Board of Directors moved that the rate be reduced to 3-1/2

per cent, and it did not carry. The other two members indicated that, while they were personally disposed to respond favorably to the Federal Reserve Board's request, there was not a majority of the Committee present. Since they already knew that the remaining three members of the Executive Committee opposed the rate reduction, they thought it best to hold the matter over until the Committee's regularly scheduled meeting on September 9.

News of this action was not received warmly at the Federal Reserve Board. Although the Chairman of the Chicago Bank thought a favorable vote by his Executive Committee might still be possible on September 9 -- if the status quo were maintained until then -- the Federal Reserve Board found the situation unacceptable. A special meeting of the Board was held on September 6 to consider the rediscount rates at the Federal Reserve Banks of Chicago and San Francisco. After considerable discussion, a motion was made and passed (although not unanimously) to fix a rediscount rate for the Federal Reserve Bank of Chicago of 3-1/2 per cent effective at the close of business on the same day. No decision was made to fix the rate for the San Francisco Bank; instead it was decided to advise the Chairman of the San Francisco Bank that the Federal Reserve Board felt its rate should be reduced and requested that its Board of Directors or Executive Committee consider the matter promptly. Following the Board's determination of the rate at Chicago, the other three Reserve Banks reduced their rates to 3-1/2 per cent. Board approval was given on September 7 to the Philadelphia Bank's action, and the Minneapolis and San Francisco Banks established the lower rate effective September 14, 1927.

I have reviewed at some length this single case of discount rate determination by the Federal Reserve Board because I find it most instructive.

Undoubtedly, the entire System was so chastened by the experience that it has never been repeated. From the vantage point of 40-odd years, it is clear that much more was involved in the controversy than whether the discount rate should be reduced by 1/2 per cent at a particular Reserve Bank. The fundamental issue was whether the System should try to pursue a common monetary policy in the national interest -- or whether mainly regional considerations should be given the most weight. But there were also questions about the availability of information and the relevance of international factors in the determination of monetary policy. Moreover, as is usually the case, there were strong personalities involved -- both at the Federal Reserve Board and in the various Reserve Banks. Thus, this episode, as a first class drama should, helps us to understand how vital -- but also how fragile -- is our basic discount mechanism. Its significance should not be missed because of a lack of historical perspective.

Strengthening the Contribution of Discount Policy to Monetary Management

Returning to the current scene, I am personally convinced that a number of steps can be taken to enhance the role of discount rate changes as instruments of monetary policy. I think a special opportunity exists for expanding the contributions which the Reserve Banks' Boards of Directors can make.

In the first place, we need a more efficient mechanism for keeping the entire System abreast of the way in which different parts of the System are reading those economic and financial developments which influence judgments about possible changes in discount rates. Of course, I fully

realize that each Reserve Bank provides for its Board of Directors ample information and analysis not only of developments in its own District but in the national economy as well. Moreover, the regular meetings of the FOMC enable each Reserve Bank President to participate with his colleagues in a full discussion of the economic and financial outlook and weigh the key factors bearing on monetary policy. Members of the Federal Reserve Board and its Senior Staff also share fully in this exchange. While the FOMC does not have any responsibility to review or fix discount rates, it does serve as a forum for the consideration of monetary policy generally -- including possible changes in discount rates. Thus, under current arrangements, it is difficult to anticipate that a discount rate adjustment would come as a surprise.

Nevertheless, there is still room for further improvement in our communications system. As is generally known, the FOMC meetings are conducted on a confidential basis. While Reserve Bank Presidents undoubtedly share with their Boards of Directors their own appraisal of economic and financial trends, this almost certainly does not extend to the results of the deliberations of the FOMC. While there is more or less frequently communication between a few Directors and one or more members of the Federal Reserve Board, this network is not very extensive. Finally, while once each year Reserve Bank Chairmen and new Directors meet separately as a group with the Federal Reserve Board, these are not occasions best suited to the discussion of discount rate changes or other aspects of current monetary policy.

Thus, I am in favor of further strengthening our network of communication. As noted in the recently published report on the discount mechanism,

several procedures now exist for the formal exchange of information and experiences among the discount departments of the 12 Reserve Banks and the Board staff. For a number of years now, a two-day conference of discount officials has been held early each Fall. This provides an opportunity for intensive discussion of the broad issues currently facing the discount officers or expected to arise in the near future and has proved to be a most useful forum for this purpose.

In addition, a series of telephone conference calls was instituted approximately two years ago for interim exchanges of ideas and experiences. These calls were begun with the issuance of the System's September 1, 1966, letter regarding discounting and restraint of business lending, with the original intent of coordinating the program established by that letter. They were held first on a weekly basis and then biweekly for the duration of that program. When the letter was rescinded in December, 1966, it was decided that the calls had proven of such value for the exchange of more general information than originally contemplated that they should be continued. Since that time they have been held approximately once a month, with the exact scheduling depending on current conditions.

It will be noted, however, that so far the discount conference, for the most part, has involved technical personnel, and the focus has been primarily on the functioning of the discount window within the framework of a given discount policy. I would like to see the participation in this conference broadened considerably. In my opinion, it would be helpful to include more policy-oriented staff in the Reserve Banks and at the Board. From time-to-time, Reserve Bank Presidents and Board Members might also

join. Such a concentrated focus on the performance of the discount function should certainly improve the chances for the emergence of a commonly understood discount policy throughout the System. It would enable the officers of each Reserve Bank to keep its Directors more current with respect to the trend of thinking in relation to the possible need for a change in the rate.

Being better informed about national and international as well as regional developments, the Directors would also be in a better position to decide more quickly whenever a rate adjustment seems called for. Having said this, I certainly am not suggesting that all Directors will agree more readily to support a particular rate action. Quite the contrary, each Director would obviously retain his right to vote for or against any proposed change. What it does mean is that he would be in a much better position to express his judgments about policy less hampered by questions concerning the adequacy of information. By the same token, the Federal Reserve Board would be in a better position to perform its own responsibilities to review and determine the rate established by a Reserve Bank. In making its own decision, the Board would have greater assurance that the Bank Directors, in fact, had acted against the background of a full awareness of the requirements of the nation's monetary policy.

In the meantime, the administration of the discount function would also be improved if the arrangements under which the Directors of the Reserve Banks transact their business were refashioned to permit a more rapid consideration of discount rate issues. A review of the current by-laws of the Reserve Banks covering the frequency of meetings of their Boards of Directors and of their Executive Committees shows a variety of practices. For example, the

by-laws of only three Banks provide explicitly for a meeting of their full Boards approximately every 14 days. Eight of the Banks provide for a full Board meeting roughly every 30 days. The remaining Bank simply states that the Board of Directors should fix the date; currently the schedule calls for a meeting about every 30 days. The by-laws of all Reserve Banks authorize the calling of special meetings of the Boards of Directors. All of the Banks seem to provide for a schedule of meetings of their Executive Committees which insures that either the Committee of the full Board meets at least once approximately every two weeks. However, while all of the Reserve Bank Executive Committees have authority to act on discount rates, their authority to change rates varies somewhat. Thus, the by-laws of six Banks specifically authorize Executive Committees to act on discount rates in the same manner open to the full Boards. But the Committee in one Bank may not make a change in rates unless it communicates with all of the Directors and obtains the consent of the majority. Although none of the Reserve Banks' by-laws contain express authority for telephone meetings of the Boards of Directors, three of them do specifically authorize telephone meetings of their Executive Committees. Yet, in one case no change can be made in the discount rate.

From the examination of the arrangements at Reserve Banks, I conclude that they might well be reviewed with an eye on their flexibility with respect to discount rate changes. Certainly, if the proposal to make smaller and more frequent changes in discounts is adopted, the Reserve Banks would have to adopt their own procedures.

As I also mentioned above, I think a fuller explanation of rate changes provided by the Federal Reserve Board would enhance the public's understanding of the aims of monetary policy. While the situation has improved greatly in recent years, there is still leeway for doing better. Until the announcement of the discount rate change effective in July, 1963, the Board had issued a statement indicating that it had approved action by the Directors of a particular Reserve Bank establishing a new specified discount rate, effective on a given date; the previous rate was also indicated. Apparently this type of non-explanatory statement was used from the beginning of the System (perhaps on the ground that a central bank's actions spoke for themselves. By 1960, however, the situation had clearly become unsatisfactory. Between August 11 and September 8 of that year, the Board issued a series of announcements, following past practices, contained no written explanation. A Board spokesman did provide some oral background, as had been done for a number of years, but the burden of dealing with the press had now become heavy, and the difficulty of explaining fully what the Board was really trying to achieve was considerable. To correct the situation, the Board adopted a new policy calling for an explanation of the reasons underlying its approval of a rate change. However, since the next discount rate adjustment did not occur until the summer of 1963, the policy was not put into practice for almost three years.

Since then, the amount of explanation provided has been somewhat uneven. For example, in the first application of the policy in connection with the rate changes in July, 1963, the press release was particularly ample in explanations. Again, when the rate was raised in December, 1965,

the factors influencing the action were reviewed at some length. On other occasions, the extent of the explanatory material provided has varied greatly. The statement explaining the most recent rate reduction last August was one of the more limited variety. The Board did stress "that the change was primarily technical to align the discount rate with the change in money market conditions which had occurred chiefly as a result of the increased fiscal restraint and a lower Treasury demand for financing resulting from the enactment of the tax increase and its related expenditure cuts."

However, in view of the variety of comments (and some criticism) which have been focused on the action, I am personally convinced that it would have been better if the Board had spelled out more fully the extent to which it considered the rate adjustment in relation to its own assessment of prospective economic conditions. Hopefully, this can be done in the future.

Recent Trends in Discounting

Let me conclude this review of Federal Reserve discount policy with a brief look at the pattern of discount window use in the 1968 period of monetary restraint, as compared to that in 1966. In general, the patterns in these two periods have been somewhat similar. In fact, during the first half of 1968, movements in the level of borrowing at the discount window were virtually a repetition of those in the comparable period of 1966. However, as shown in Table 4, the peak of discount window use this year came in the late Spring, while the upward trend continued until the Fall of 1966. The result is that, while this year's borrowing exceeded that for the like week in 1966), the peak this year was earlier and lower than the earlier-period peak. Moreover, the aggregate level of activity for the calendar year 1968

Table 4. Member Bank Borrowing
From the Federal Reserve
Quarterly, 1966-1968
(Amounts in Millions of Dollars)

<u>All Member Banks</u>				
<u>Year</u>	1st qtr	2nd qtr	3rd qtr	4th qtr
1966	481	875	753	633
1967	316	119	89	166
1968	422	704	531 ^P	
<u>Reserve City Banks</u>				
	1st qtr	2nd qtr	3rd qtr	4th qtr
1966	333	389	460	443
1967	247	84	39	101
1968	283	405	319 ^P	
<u>Country Banks</u>				
	1st qtr	2nd qtr	3rd qtr	4th qtr
1966	148	286	293	190
1967	69	35	50	65
1968	139	299	212 ^P	

p -- preliminary figure

will apparently be significantly lower than in 1966.

The number of banks borrowing at the discount window in any given week likewise moved upward in the first half of 1968, as it had in 1966. However, in this case the absolute level remained consistently below 1966 figures. The number borrowing also reached a peak in the second quarter and has fallen further below 1966 levels since then. Final data on the number of banks using the discount window at some time during the year will not be available until after year end, but preliminary indications are that this figure will also be significantly below the 1966 level. This suggests that, contrary to some expectations, the use of the window has not become more widespread among member banks. Offsetting this suggestion, however, is a qualitative feeling on the part of some within the System (thus far unsupported by hard data) that, while the number of banks which have turned to the window may not be unusually high, this group includes some banks which have not in the recent past been regular borrowers at the window.

The absolute level of borrowing referred to above is perhaps more meaningful if it is related to some measure of bank reserves. When taken as a percentage of total bank reserves, the 1968 figures are consistently below those of 1966. This is to be expected, since borrowing levels in the current year were somewhat lower and total reserves had of course increased in the two-year period. More interesting, however, has been the contribution of discount credit to the growth in total reserves during the two periods of restraint. Using quarterly averages for the fourth quarters of 1965 and 1967 and the third quarters of 1966 and 1968, the amount of growth accounted for by an increase in

borrowing levels is about the same in the 1968 period as in 1966 -- 31 per cent and 30 per cent, respectively. However, the difference becomes striking if one shifts back one quarter in the current period (third quarter, 1967 to second quarter 1968), a change justified by the earlier peak of 1968 borrowing levels. On this basis, approximately 37 per cent of the 1968 increase in total reserves was attributable to the higher discount window use.