

STRICTLY CONFIDENTIAL (FR)
CLASS I - FOMC

March 20, 1991

To: Federal Open Market Committee

Subject: Discount rate and

From: Staff Task Force¹

Open Market Operations

The Task Force was established to examine the interaction between changes in discount rates by the Board of Governors and open market operations under current operating procedures and directives of the FOMC. The question was raised in the context of how discount rate changes should show through to levels of the federal funds rate expected in the execution of open market operations.

History

Practice in regard to the relationship between discount rate and federal funds rate changes has varied over the last several decades. As noted in Appendix A, expected federal funds rates have tended, for the most part, to move closely with changes in the discount rate in the 1980s, usually by the full amount of the change. This relationship arose as a result of targeting nonborrowed reserves from 1979 to 1982, and borrowed reserves explicitly through the latter part of 1987. This is because the borrowing level (which was also implicit in a nonborrowed reserve procedure) determined the spread between the discount rate and the federal funds rate. Unless a decision were made to change the objective for open market operations, a change in the discount rate would be reflected in a similar sized change in the federal funds rate over time.

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The practice of having changes in the discount rate show through to federal funds rates was carried into the latter portion of the 1980s, even as borrowing objectives came to be viewed more flexibly and greater attention was paid in open market operations to expected federal funds rates. On several occasions in recent years, decisions to adjust policy were implemented for a day or so through open market operations, and the change in the borrowing level was reversed when a subsequent adjustment to the discount rate was made. Viewed over the span of several days, the change in the discount rate was echoed in the expected federal funds rate. (The action following the December 1990 FOMC is an exception to this general tendency.)

Procedures in the 1970s were somewhat different. In that decade, the relationship of changes in the federal funds rate and the discount rate appears to have been considerably more variable and discretionary. This probably reflected in large measure the focus on the federal funds rate as the operating target of open market operations, and the increasingly narrow range permitted for that rate as the decade went on. Still, as noted in the appendix, through much of the decade the two rates tended to move together, but with the discount rate often changing by more than the federal funds rate--that is the change in the discount rate was used in part to adjust the spread. In the latter part of the 1970s the discount rate adjustments more frequently were not allowed to affect the federal funds rate, but only the spread.

As might be expected from this shifting practice, there is little guidance in the legislative history of the Federal Reserve Act,

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including the 1935 amendments establishing the FOMC in its current form, concerning the interactions between open market operations and the discount rate. (Appendix B discusses the evolution of the role of the Board of Governors in open market operations.) Under the Act, the discount rate is to be fixed with a view to "accommodating commerce and business" (Section 14, original language), while open market operations are to be "governed with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country" (Section 12A, 1933). The last phrase carries over from the Board resolution of 1923 creating the Federal Open Market Investment Committee to coordinate open market operations among Reserve Banks, when some did not recognize that such operations, as well as the usual discount rate tool, did have a bearing on credit conditions more generally. The Act instructs both "The Board of Governors of the Federal Reserve System and the Federal Open Market Committee ... [to] maintain long-run growth of the monetary and credit aggregates commensurate with the economy's long-run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates" (Section 2A, 1977).

Current Situation

The reference in the current directive to "the degree of pressure on reserve positions" is imprecise and ambiguous as to the proximate target of open market operations. A borrowing target would seem to imply a fairly routine passing through of discount rate changes since it would maintain the spread of the funds rate over the discount rate, as

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has usually been the case since 1979; a funds rate target would seem to imply the need for a more discrete decision each time, as in the 1970s. The Task Force did not take its charge to be a resolution of this ambiguity. Clearly FOMC members have in mind, and discuss explicitly, the federal funds rates they expect to see as a consequence of their instructions to the manager. At the same time, numerous discussions over the past few years have emphasized the desire to avoid the sort of explicitly stated federal funds targeting with tightly prescribed ranges that evolved in the 1970s. It may be that the policy of allowing discount rates to feed through most of the time to federal funds rates by about the amount of the discount rate change has been one element that has enabled the Federal Reserve to avoid the rigidities of the late 1970s.

Discount rate changes without any associated change in federal funds rates could be seen as diminishing the importance of the discount rate instrument and the perceived role of the Reserve Bank directors. On the other hand, virtually automatic pass-throughs of discount rate changes to the funds rate could be seen as an over-riding of what has come to be, substantially, the FOMC's policy instrument; on occasion, there has been discussion at FOMC meetings of possible or likely forthcoming discount rate changes and an at least implicit sense has emerged as to how desired funds rate behavior might develop in the event of a discount rate action.

On balance, it might be advantageous to continue the presumption that changes in the discount rate would show through to the federal

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funds rate. Such action normally would be consistent with the general policy posture of the FOMC, including its rationale for possible changes between meetings. Changes in the discount rate usually would be based on the types of new information or developments discussed by the Committee or specified in the directive for intermeeting policy adjustments. Moreover, discount rate changes are made on the basis of Reserve Bank director recommendations, which often reflect the analysis and recommendation of Reserve Bank Presidents.

Often, perhaps even typically, the full change could be expected to show through. However, there could be occasions when the discount rate move was essentially intended to catch up with funds rate changes and associated movements in other market rates, and not intended to initiate fresh movements in those rates. At those times, and also when a discount rate change, combined with previous discount rate movements or changes in open market operations, would tend to produce an especially large movement in federal funds rates over an intermeeting period, a process of enhanced consultation among members of the FOMC would be appropriate. Such consultation would enable the Chairman and other members of the Committee to assess any reasons why a discount rate move should or should not be allowed to show through entirely to market rates.

Appendix A

Summary of Historical Changes in the Discount Rate and the Expected Federal funds Rate: 1971 to 1991¹

The following table lists all changes made to the discount rate from 1971 to the present along with changes in the expected level or trading range for the Federal funds rate. (Another supplementary table is provided that lists the dates and sizes of all the discount rate changes in this period.) A few comments on the way the table was put together and some general observations on movements in the discount and expected funds rate are given below.

The date that each discount rate move was announced appears in boldface; the date that follows in parentheses is when the discount rate change became effective at the New York Fed. In all but three cases, the vote and the announcement of each discount rate change occurred on the same day (the vote took place one day earlier for the three exceptions).

All changes to the expected Federal funds rate made on or near dates when the discount rate was changed are listed. In cases where the change to the expected funds rate appears on the same line as a discount rate move, the date of the funds rate change corresponds to the day that the discount rate action was announced. When a long time lapsed between discount rate changes, several movements in the expected funds rate may have been collapsed together in the table. Also, in some cases when a change in the expected funds rate did not coincide with a discount rate move, a general time frame instead of an exact date is given for the funds rate action. Sources for changes in the expected Federal funds rate include various weekly/biweekly Open Market reports, and domestic policy directives from FOMC meetings. For each date that a discount rate action was taken, these sources were checked to determine whether a change was made to the expected funds rate.

The table shows how closely the discount rate and the expected Federal funds rate moved together in the past. On several occasions changes were made to the expected Federal funds rate on adjacent or nearly adjacent trading days which, when added together, equal the size of the discount rate move made in the same time period. In these instances, there is probably room for some difference of interpretation about whether a discount rate change was "immediately" carried through to the funds rate, even though the changes to the funds rate may appear as separate actions in the table.

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From 1984 to the present, a change in the expected Federal funds rate coincided, at least within a day or so, with each of the thirteen discount rate moves. For the most part these actions were of the same order of magnitude, although there were some instances when the size of the discount rate move exceeded the change in the expected funds rate.

In reading various weekly/biweekly reports that covered dates of discount rate actions in this period, discount rate changes were usually cited when movements to the expected Federal funds rate were presented. For example, the May 22, 1985 report reads, "Following the discount rate cut on Friday, it was expected that Federal funds might center around 7 3/4 percent."

In the period October 1979 through 1982, there were eighteen changes to the discount rate (the rate was not changed in 1983). From late 1981 through 1982, discount rate actions were always closely followed by changes to the expected funds rate, and the sizes of the moves were usually, though not always, the same. From late 1979 through mid 1981, the two rates moved broadly together, though often with modest differences in timing and precise size of changes. Most discount rate actions were accompanied or closely followed by expected funds rate moves, but some were not. Also, the order of magnitude of the moves to the different rates, even when they did coincide in their timing, was sometimes different. However, over much of this time, the expected funds rate moved in a very wide range, and often expected ranges were not well specified in the documentation.

From 1977 through mid 1979 there were twelve discount rate changes, only about half of which were accompanied within a couple of business days by a change to the expected Federal funds rate. The sizes of the funds rate moves were typically less than the discount rate changes when the two actions did take place simultaneously.

Looking at some weekly reports from this period (1978), when changes in the expected funds rate and discount rate coincided, the two events were usually not linked in the writing of the reports. Changes in the expected funds rate were typically tied to the receipt of unexpectedly strong or weak money data. Discount rate actions were usually taken in recognition of recent moves in other short term interest rates and, often, with an eye towards their potential impact on the dollar.

There were twenty-one discount rate changes from 1971 through 1976, and most times these actions were accompanied by a change to the expected Federal funds rate, at least within a day or so. When the two rates were moved in close proximity, the magnitude of the discount rate change often exceeded the change to the expected funds rate--although this is sometimes hard to pin down because changes to the range of the expected funds rate frequently would allow for potential funds rate movements no greater than, but which could be less than, the size of the discount rate change.

Looking at weekly reports from the early to mid 1970s covering dates when discount rate changes were made, these changes were sometimes noted in the text, but they were not usually directly linked to movements in the expected Federal funds rate (though sometimes they seemed to be). Changes to

the funds rate were usually tied to the receipt of data or new projections that showed unexpected weakness or strength in some monetary aggregate (like M1 or private nonbank deposits). Nonetheless, adjustments to the expected funds and the discount rate were often made on the same date--often on a Friday following the receipt of new money information.

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Changes to the Discount Rate and the Expected Federal Funds Rate
1971 to 1991

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1971</u>				
Jan 7(Jan 8)	cut 1/4	5 1/4	-	-
Jan 8			cut 1/4	4 1/2
Jan 12			cut 1/4	4 1/4
Jan 18(Jan 22)	cut 1/4	5	-	-
late Jan			cut 1/4	4
early Feb			cut 1/4	3 3/4
Feb 12(Feb 19)	cut 1/4	4 3/4	-	-
Feb 19			cut 1/4	3 1/2
March to early Jul			raised gradually in many small steps to...	5 to 5 1/2
early Jul			cut 0 to 1/4	5 to 5 1/4
Jul 15(Jul 16)	raised 1/4	5	raised 0 to 1/4	5 to 5 1/2
mid Aug			raised 1/2 to 1/4	5 1/2 to 5 3/4

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1971 (cont.)</u>				
Sep to Oct			cut in three steps to...	5 to 5 1/8
days prior to Nov 10			cut 0 to 1/8	5
Nov 10(Nov 19)	cut 1/4	4 3/4	-	-
Nov 12			cut 1/4	4 3/4
late Nov			cut to midpoint of...	4 1/4 to 4 7/8
Dec 10(Dec 17)	cut 1/4	4 1/2	cut to slightly below midpoint of...	4 1/4 to 4 7/8
Dec 16			cut to...	4 1/8
Dec 17			cut 1/8	4
mid Dec to Feb '72			cut in two steps to...	3 1/2
<u>1972</u>				
Mar to late Dec			raised gradually in many steps to...	5 1/2 to 5 3/4

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1973</u>				
early Jan			raised 1/4 to 0	5 3/4
Jan 12(Jan 15)	raised 1/2	5	raised 0 to 1/8	5 3/4 to 5 7/8
Jan 19			raised 1/4 to 1/8	6
late Jan			raised in two steps to...	6 3/8
mid Feb			raised 1/8	6 1/2
Feb 23(Feb 26)	raised 1/2	5 1/2	raised 1/8 to 1/4	6 5/8 to 6 3/4
early Mar			raised 1/8 to 0	6 3/4
mid Mar			raised 0 to 1/4	6 3/4 to 7
late Mar			raised 1/4 to 0	7
Apr 20(May 4)	raised 1/4	5 3/4	raised 1/4	7 1/4
May 4			raised 0 to 1/4	7 1/4 to 7 1/2
May 10(May 11)	raised 1/4	6	raised 1/4 to 0	7 1/2
May 18			raised 3/8	7 7/8
late May			raised 3/8	8 1/4
Jun 8(Jun 11)	raised 1/2	6 1/2	raised 1/4	8 1/2

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1973 (cont.)</u>				
Jun 29(Jul 2)	raised 1/2	7	raised 3/4 (over several following days)	9 1/4
Jul 6			raised 1/4	9 1/2
mid Jul			raised in two steps to...	10 to 10 1/4
late Jul			raised 1/2 to 1/4	10 1/2
Aug 13(Aug 14)	raised 1/2	7 1/2	-	-
late Aug			raised 1/2	11
Sep to Feb '74			cut gradually in many steps to...	9
<u>1974</u>				
Mar to mid Apr			raised in four steps to...	10
days prior to Apr 24			raised 1/2 to 3/4	10 1/2 to 10 3/4
Apr 24(Apr 25)	raised 1/2	8	-	-
Apr 25			raised 1/2 to 1/4	11
late May to mid Jul			raised in several steps to...	13

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1974 (cont.)</u>				
late Jul to late Nov			cut in many steps to...	9 1/4
late Nov			cut 1/4 to 0	9 to 9 1/4
Dec 6(Dec 9)	cut 1/4	7 3/4	cut 0 to 1/4	9
Dec 9			cut 1/4 to 0	8 3/4 to 9
mid to late Dec			cut in two steps to...	8 1/4
late Dec			cut 1/4	8
<u>1975</u>				
Jan 3(Jan 10)	cut 1/2	7 1/4	cut 1/2	7 1/2
Jan 10			cut 1/4	7 1/4
mid Jan			cut in two steps to...	6 3/4 to 7
days prior to Feb 4			cut 1/4 to 1/2	6 1/2
Feb 4(Feb 5)	cut 1/2	6 3/4	-	-
Feb 6			cut 1/4	6 1/4
late Feb			cut 1/4	6
Mar 7(Mar 10)	cut 1/2	6 1/4	cut 1/4	5 3/4
Mar 21			cut 1/4	5 1/2

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1975 (cont.)</u>				
late Apr			cut 1/4	5 1/4
early May			cut 1/4 to 0	5 to 5 1/4
May 15(May 16)	cut 1/4	6	-	-
early Jun			raised 1/4 to 0	5 1/4
mid Jun to mid Sep			raised gradually in several steps to...	6 1/4 to 6 1/2
Oct to early Jan '76			cut in many steps to...	4 7/8
<u>1976</u>				
Jan 12			cut 1/8	4 3/4
Jan 16(Jan 19)	cut 1/2	5 1/2	-	-
Apr 21			raised 1/8	4 7/8
May			raised in several steps to...	5 1/2
Jul to early Oct			cut in several steps to...	5 1/8
mid Oct			cut 1/8	5

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1976 (cont.)</u>				
Nov 19(Nov 22)	cut 1/4	5 1/4	cut 1/8	4 7/8
Nov 26			cut 1/8	4 3/4
early Dec to early Aug '77			raised in several steps to...	5 7/8
<u>1977</u>				
mid Aug			raised 1/8	6
Aug 29(Aug 31)	raised 1/2	5 3/4	-	-
mid Sep			raised 1/8	6 1/8
Sep 20			raised 1/8	6 1/4
mid Oct			raised 1/4	6 1/2
Oct 25(Oct 26)	raised 1/4	6	-	-
<u>1978</u>				
Jan 6(Jan 9)	raised 1/2	6 1/2	-	-
Jan 9			raised 1/4	6 3/4
Apr 19			raised 1/4	7
Apr 26			raised 1/8	7 1/8
Apr 27			raised 1/8	7 1/4

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1978 (cont.)</u>				
May 11(May 11)	raised 1/2	7	-	-
May 17			raised 1/4	7 1/2
Jun 21			raised 1/4	7 3/4
Jun 30(Jul 3)	raised 1/4	7 1/4	-	-
Jul 19			raised 1/8	7 7/8
Aug 16			raised 1/8	8
Aug 18(Aug 21)	raised 1/2	7 3/4	raised 0 to 1/8	8 to 8 1/8
Aug 25			raised 1/4 to 1/8	8 1/4
Sep 8			raised 1/8	8 3/8
Sep 20			raised 1/8	8 1/2
Sep 22(Sep 22)	raised 1/4	8	raised 1/8	8 5/8
Sep 29			raised 1/8	8 3/4
Oct 13(Oct 16)	raised 1/2	8 1/2	-	-
Oct 18			raised 1/4	9
days prior to Nov 1			raised 1/2 to 3/4	9 1/2 to 9 3/4
Nov 1(Nov 1)	raised 1	9 1/2	-	-

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1978 (cont.)</u>				
mid Nov			raised 3/8 to 1/8	9 7/8
Dec 20			raised 1/8	10
<u>1979</u>				
late Apr			raised 1/4	10 1/4
Jul 20(Jul 20)	raised 1/2	10	raised 1/4	10 1/2
Jul 27			raised 1/8	10 5/8
Aug 15			raised 3/8	11
Aug 16(Aug 17)	raised 1/2	10 1/2	-	-
late Aug			raised 1/4	11 1/4
Aug 31			raised 1/8	11 3/8
Sep 18(Sep 19)	raised 1/2	11	-	-
Sep 19			raised 1/8	11 1/2
Oct 6(Oct 8)	raised 1	12	-	-
Oct 8			raised 1 1/2 (also, a broad tolerance range was set-11 1/2 to 15 1/2)	13

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1979 (cont.)</u>				
late Oct			raised 2 1/2	15 1/2
Nov to Dec			cut in several steps to...	12 to 14
<u>1980</u>				
early to late Jan			raised gradually towards...	14
Feb 15(Feb 15)	raised 1	13	raised 1/2 to 1	14 1/2 to 15
late Feb to late Mar			raised gradually towards...	20
Apr to mid May			cut in several steps to...	10 1/2 to 11 1/2
May 22			cut 1 to 3/4	9 1/2 to 10 3/4
May 28(May 30)	cut 1	12	-	-
May 29			no change, but funds expected to test lower bound of range (9 1/2) in upcoming days	
Jun 5			cut 1 to 1 1/4	8 1/2 to 9 1/2
Jun 12(Jun 13)	cut 1	11	-	-
Jul 25(Jul 28)	cut 1	10	-	-

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1980 (cont.)</u>				
Aug 7			raised 1 1/2 to 1/2	10
mid Sep			raised 1	11
Sep 25(Sep 26)	raised 1	11	raised 3/4 to 1	11 3/4 to 12
early Oct			raised 1/4 to 0	12
mid Oct to early Nov			raised in several steps to...	13 1/2 to 13 3/4
Nov 7			raised 1 1/2 to 1 1/4	15
Nov 14(Nov 17)	raised 1	12	-	-
Nov 21			raised 2 to 3	17 to 18
Dec 4(Dec 5)	raised 1	13	-	-
Dec 5			raised 2	19 to 20
Dec 29			cut 2	17 to 18
<u>1981</u>				
early to mid Jan			raised towards...	19 to 20
late Jan to mid Apr			cut in several steps to...	16

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<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1981 (cont.)</u>				
Apr 24			expected to rise "well above 16" over the following days	
May 4(May 5)	raised 1	14	-	-
May 8			raised to...	18 to 20
late May			raised towards...	20
mid Jun to mid Oct			cut in several steps to...	14 1/2 to 15 1/2
Oct 30(Nov 2)	cut 1	13	-	-
Nov 2			cut 1 1/2	13 to 14
mid to late Nov			cut in several steps to...	13
Dec 3(Dec 4)	cut 1	12	-	-
Dec 4			cut 1	12
<u>1982</u>				
early Jan to mid Apr			raised gradually in several steps to...	15
mid Apr to mid Jul			cut in several steps to...	12 1/2 to 13

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1982 (cont.)</u>				
Jul 19(Jul 20)	cut 1/2	11 1/2	-	-
Jul 20			cut 1	11 1/2 to 12
Jul 30(Aug 2)	cut 1/2	11	-	-
Aug 2			cut 1/2	11 to 11 1/2
Aug 13(Aug 16)	cut 1/2	10 1/2	-	-
Aug 16			cut 1	10 to 10 1/2
Aug 26(Aug 27)	cut 1/2	10	-	-
Aug 27			cut 1/2 to 1	9 1/2
early Sep			raised 1/2	10
Oct 8(Oct 12)	cut 1/2	9 1/2	-	-
Oct 12			cut 1/2	9 1/2
Nov 19(Nov 22)	cut 1/2	9	-	-
Nov 22			cut 1/2	9
Dec 13(Dec 15)	cut 1/2	8 1/2	cut 1/2	8 1/2

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1983</u>				
late May to mid Aug			raised gradually in many small steps to...	9 1/2 to 9 5/8
late Aug to early Oct			cut in two steps to...	9 1/4 to 9 1/2
<u>1984</u>				
early to late Mar			raised in two steps to...	9 3/4 to 10
March 29			raised 1/4 to 1/2	10 to 10 1/2
Apr 6(Apr 9)	raised 1/2	9	raised 1/2 to 0	10 1/2
late Jun			raised 1/2	11
late Jul to late Aug			raised in several steps to...	11 1/2 to 11 3/4
early Sep to mid Oct			cut in several steps to...	10
early Nov			cut 1/2	9 1/2
Nov 21(Nov 21)	cut 1/2	8 1/2	-	-
Nov 22			cut 1/2	9
early Dec			cut 1/4	8 3/4
Dec 21(Dec 24)	cut 1/2	8	cut 1/2	8 1/4

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<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1985</u>				
mid Feb to mid Mar			raised in three steps to...	9
late Mar to early Apr			cut in two steps to...	8 1/2
mid Apr			cut 1/4	8 1/4
May 17(May 20)	cut 1/2	7 1/2	-	-
May 20			cut 1/2	7 3/4
mid Jul			cut 1/8 to 0	7 5/8 to 7 3/4
late Jul to late Aug			raised in two steps to...	7 3/4 to 8
Sep 6			raised 1/4 to 0	8
Dec 18			cut 1/4	7 3/4
<u>1986</u>				
Mar 7(Mar 7)	cut 1/2	7	cut 1/2	7 1/4
Apr 18(Apr 21)	cut 1/2	6 1/2	cut 1/2	6 3/4
late May			raised 0 to 1/8	6 3/4 to 6 7/8
mid Jun			raised 1/8 to 0	6 7/8
Jul 10(Jul 11)	cut 1/2	6	-	-

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1986 (cont.)</u>				
Jul 11			cut 1/2	6 3/8
mid Aug			cut 1/8 to 0	6 1/4 to 6 3/8
Aug 20(Aug 21)	cut 1/2	5 1/2	-	-
Aug 21			cut 3/8 to 1/2	5 7/8
late Dec			raised 1/8	6
<u>1987</u>				
late Apr to mid May			raised in two steps to...	6 3/4
Sep 3			raised 0 to 1/4	6 3/4 to 7
Sep 4(Sep 4)	raised 1/2	6	raised 1/2 to 1/4	7 1/4
in the weeks after Black Monday			cut 1/2 to 3/8	6 3/4 to 6 7/8
<u>1988</u>				
late Jan to early Feb			cut in two steps to...	6 1/2
late Mar to late Jun			raised in five steps to...	7 1/2
mid Jul			raised 1/8 to 1/4	7 5/8 to 7 3/4

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1988 (cont.)</u>				
Aug 5			raised 1/8 to 0	7 3/4
Aug 9(Aug 9)	raised 1/2	6 1/2	raised 1/4 to 1/2	8 to 8 1/4
mid Nov			raised 3/8 to 1/8	8 3/8
early Dec			raised 1/4 to 3/8	8 5/8 to 8 3/4
<u>1989</u>				
early Jan to early Feb			raised in two steps to...	9 1/4 to 9 3/8
Feb 23			raised 1/4	9 1/2 to 9 5/8
Feb 24(Feb 24)	raised 1/2	7	raised 1/4 to 1/8	9 3/4
early Jun			cut 1/4 to 1/8	9 1/2 to 9 5/8
early Jul to mid Dec			cut in several steps to...	8 1/4
<u>1990</u>				
Jul 13			cut 1/4	8
Oct 29			cut 1/4	7 3/4
Nov 14			cut 1/4	7 1/2
Dec 7			cut 1/4	7 1/4

<u>date</u>	<u>discount rate</u>		<u>expected Federal funds rate</u>	
	<u>change</u>	<u>new level</u>	<u>change</u>	<u>new level/range</u>
<u>1990 (cont.)</u>				
Dec 18(Dec 19)	cut 1/2	6 1/2	-	-
Dec 19			cut 1/4	7
<u>1991</u>				
Jan 8			cut 1/4	6 3/4
Feb 1(Feb 1)	cut 1/2	6	cut 1/2	6 1/4

	DATE OF:			DISCOUNT RATE MOVE:	
	Vote	Announcement	FRB NY Effective	To	Change
1971	Jan 7	Jan 7	Jan 8	5 1/4	-1/4
	Jan 18	Jan 18	Jan 22	5	-1/4
	Feb 12	Feb 12	Feb 19	4 3/4	-1/4
	Jul 15	Jul 15	Jul 16	5	1/4
	Nov 10	Nov 10	Nov 19	4 3/4	-1/4
	Dec 10	Dec 10	Dec 17	4 1/2	-1/4
1972	no change				
1973	Jan 12	Jan 12	Jan 15	5	1/2
	Feb 23	Feb 23	Feb 26	5 1/2	1/2
	Apr 20	Apr 20	May 4	5 3/4	1/4
	May 10	May 10	May 11	6	1/4
	Jun 8	Jun 8	Jun 11	6 1/2	1/2
	Jun 29	Jun 29	Jul 2	7	1/2
	Aug 13	Aug 13	Aug 14	7 1/2	1/2
	1974	Apr 24	Apr 24	Apr 25	8
Dec 6		Dec 6	Dec 9	7 3/4	-1/4
1975	Jan 3	Jan 3	Jan 10	7 1/4	-1/2
	Feb 4	Feb 4	Feb 5	6 3/4	-1/2
	Mar 7	Mar 7	Mar 10	6 1/4	-1/2
	May 15	May 15	May 16	6	-1/4
1976	Jan 16	Jan 16	Jan 19	5 1/2	-1/2
	Nov 19	Nov 19	Nov 22	5 1/4	-1/4
1977	Aug 29	Aug 29	Aug 31	5 3/4	1/2
	Oct 25	Oct 25	Oct 26	6	1/4
1978	Jan 6	Jan 6	Jan 9	6 1/2	1/2
	May 10	May 11	May 11	7	1/2
	Jun 30	Jun 30	Jul 3	7 1/4	1/4
	Aug 18	Aug 18	Aug 21	7 3/4	1/2
	Sep 22	Sep 22	Sep 22	8	1/4
	Oct 13	Oct 13	Oct 16	8 1/2	1/2
	Nov 1	Nov 1	Nov 1	9 1/2	1
	1979	Jul 19	Jul 20	Jul 20	10
Aug 16		Aug 16	Aug 17	10 1/2	1/2
Sep 18		Sep 18	Sep 19	11	1/2
Oct 6		Oct 6	Oct 8	12	1
1980	Feb 15	Feb 15	Feb 15	13	1
	May 28	May 28	May 30	12	-1
	Jun 12	Jun 12	Jun 13	11	-1
	Jul 25	Jul 25	Jul 28	10	-1
	Sep 25	Sep 25	Sep 26	11	1
	Nov 14	Nov 14	Nov 17	12	1
	Dec 4	Dec 4	Dec 5	13	1
	1981	May 4	May 4	May 5	14
Oct 30		Oct 30	Nov 2	13	-1
Dec 3		Dec 3	Dec 4	12	-1

	DATE OF:			DISCOUNT RATE MOVE:	
	Vote	An ouncement	FRB NY Effective	To	Change
1982	Jul 19	Jul 19	Jul 20	11 1/2	-1/2
	Jul 30	Jul 30	Aug 2	11	-1/2
	Aug 13	Aug 13	Aug 16	10 1/2	-1/2
	Aug 26	Aug 26	Aug 27	10	-1/2
	Oct 8	Oct 8	Oct 12	9 1/2	-1/2
	Nov 19	Nov 19	Nov 22	9	-1/2
	Dec 13	Dec 13	Dec 15	8 1/2	-1/2
1983	no change				
1984	Apr 6	Apr 6	Apr 9	9	1/2
	Nov 21	Nov 21	Nov 21	8 1/2	-1/2
	Dec 21	Dec 21	Dec 24	8	-1/2
1985	May 17	May 17	May 20	7 1/2	-1/2
1986	Mar 6	Mar 7	Mar 7	7	-1/2
	Apr 18	Apr 18	Apr 21	6 1/2	-1/2
	Jul 10	Jul 10	Jul 11	6	-1/2
	Aug 20	Aug 20	Aug 21	5 1/2	-1/2
1987	Sep 4	Sep 4	Sep 4	6	1/2
1988	Aug 9	Aug 9	Aug 9	6 1/2	1/2
1989	Feb 24	Feb 24	Feb 24	7	1/2
1990	Dec 18	Dec 18	Dec 19	6 1/2	-1/2
1991	Feb 1	Feb 1	Feb 1	6	-1/2

APPENDIX B

THE ROLE OF THE BOARD OF GOVERNORS
IN OPEN MARKET OPERATIONS¹

The monetary policy authority of the Federal Reserve System by statute is divided. The Federal Open Market Committee (FOMC) directs the Federal Reserve System's open market operations, and through such operations is able to influence the availability and cost of bank reserves, bank credit, and monetary growth. The Board, on the other hand, establishes reserve requirements and determines the discount rates.

Open Market Operations

Relevant Statutory Provisions.

The powers of the Federal Open Market Committee are set out in Section 12A of the Federal Reserve Act. The Act provides: "No Federal Reserve bank shall engage or decline to engage in open-market operations under Section 14 of this Act except in accordance with the direction of and regulations adopted by the [Federal Open Market] Committee." 12 U.S.C. § 263(b). Section 14 of the Act provides that a Federal Reserve Bank may purchase or sell cable transfers, bankers' acceptances, and bills of exchange "under rules and regulations prescribed by the Board of Governors." 12 U.S.C. § 353. Likewise, Section 14(b)(1) grants Federal Reserve Banks the power to buy and sell (1) bonds and notes of the United States, (2) bills, notes, revenue bonds, and warrants issued by State or local governments in anticipation of

¹ Prepared by the Legal Division (Messrs. Mattingly, Ireland and Baer).

revenue, and (3) obligations of or fully guaranteed by a foreign government -- with all "such purchases to be made in accordance with rules and regulations prescribed by the Board of Governors." 12 U.S.C. § 355.

Thus, Section 12A contemplates that the FOMC will direct and regulate open market operations, and the legislative history of this provision confirms that day-to-day open market operations are to be directed by the FOMC.²

Early History

Prior to 1933, under the Federal Reserve Act each Federal Reserve Bank could conduct open market operations at its discretion within limits set by the Board.³ Although Section 14 of the Federal Reserve Act, as originally enacted, provided that the Board could adopt regulations relating to open market transactions, this power was not understood to include the power to initiate open market operations or direct the Reserve Banks to engage in those operations. Nonetheless, the Board did establish a series of committees to coordinate operations; the last,

² Although Section 14 by its terms continues to grant the Board the authority to regulate the transactions that make up open market operations, that regulatory authority is in conflict with the 1935 amendment to Section 12A that gave the FOMC the power to direct and regulate open market operations. The legislative history is silent as to what residual regulatory authority the Board has over open market operations.

³ The Reserve Banks were authorized by the Board "to purchase Government bonds within the limits of prudence, as they might see fit." Federal Reserve Board, 1st Annual Report 16 (1914). Other regulations issued by the Board with regard to municipal warrants, bankers' acceptances and bills of exchange governed only the eligibility of those instruments for purchase by the Reserve Banks.

created in 1930, was called the Open Market Policy Conference and was made up of representatives of the twelve Reserve Banks.

The Banking Act of 1933.

The Banking Act of 1933 sought to codify the Open Market Policy Conference. The Act established, in a new Section 12A of the Federal Reserve Act, a Federal Open Market Committee, which was comprised of representatives of the twelve Reserve Banks. Section 12A did not state, however, what the powers or functions of the FOMC would be. The Committee report on the bill that passed the Senate stated only that the FOMC was "to supervise the open market operations of the Federal Reserve banks and the relations of the Federal Reserve System with foreign banks, in accordance with regulations adopted by the Federal Reserve Board."⁴

Although silent on the specific responsibilities of the FOMC, Section 12A did prescribe the Board's role in open market operations. While Board members did not sit on the FOMC, the Board was given the power to call meetings of the FOMC and to attend FOMC meetings. The Board was also given additional regulatory authority by the new Section 12A, which provided:

No Federal reserve bank shall engage in open market operations under section 14 of this Act except in accordance with regulations adopted by the Federal Reserve Board. The Board shall consider, adopt, and transmit to the committee and to the several Federal reserve banks regulations relating to the open-market transactions of such banks and the relations of the Federal Reserve System

⁴ S. Rep. No. 584, 72d Cong., 1st Sess., 14 (1932).

with foreign central or other foreign banks.⁵

Pursuant to the authority granted it by Section 12A, the Board issued Regulation M, series of 1933, which governed open market operations. The Regulation provided, "Any open-market policy recommended by the Federal open-market committee shall be considered by the Federal Reserve Board and shall be effective only when and to the extent approved by the Board." Still, by filing a written notice with the Board, the Federal Reserve Banks could decline to participate in operations recommended by the FOMC and approved by the Board.⁶

Under questioning from Senator Glass during hearings on the Banking Act of 1935 Act, Adolph Miller of the Federal Reserve Board shed light on the limits of the Board's authority under Section 12A:

Mr. Miller: Well, in other words, we might stop all open-market operations by refusing to issue regulations; yes. But there is no method, Senator, by which we could order any Reserve bank or all Reserve banks, let us say, to sell securities or buy securities, no matter how much we felt that it would be desirable

* * *

Senator Glass: The Act textually says that the open market committee may engage in open-market transactions only upon rules and regulations adopted by the Federal Reserve Board.

⁵ Act of June 16, 1933 (48 Stat. 168).

⁶ See Regulation M, 1933 *Federal Reserve Bulletin* 502.

Mr. Miller: Yes; but we have never construed, and I question whether it would be proper to construe it, and we have been advised that it would not be proper to construe it, that the power to make rules and regulations gives us power to annex authority not conferred by the act. We can regulate the manner, but we cannot say to them, "You shall not buy \$500,000,000; you shall buy \$200,000,000 or \$700,000,000."

Senator Glass: No; that would be the initiation that you are advocating now.

Mr. Miller: I question whether we have the right to modify their recommendation. We have done it and they have resisted it at times. At the present time they do not resist so much.⁷

As this colloquy demonstrates, even when both Section 12A and Section 14 granted the Board regulatory authority over open market operations, this authority was not viewed as including the power to direct the Reserve Banks to engage in particular open market operations.

The system created by the 1933 Act was criticized for diffusing the power to conduct open market operations and risking paralysis in times of crisis. Governor Eccles testified:

Under existing law open-market operations must be initiated by a committee consisting of representatives of the 12 Federal Reserve banks, that is, by persons representing primarily local interests. They must be submitted for approval or disapproval to the Federal Reserve Board, and after they have been approved by the Federal Reserve Board, the boards of directors of the Federal Reserve banks have the power to decide

⁷ *Hearings Before a Subcommittee of the Senate Committee on Banking and Currency on S. 1715 and H.R. 7617, 74th Cong., 1st Sess., 696, 760 (1935).*

whether or not they wish to participate in the operations.⁸

Eccles concluded that "the existing machinery is better adapted to delay and obstruction than it is to effective operation."⁹

Banking Act of 1935.

In order to address the deficiencies of the system, Chairman Steagall introduced in the House in 1935 a bill that would have vested control of open market operations in a committee consisting of three members of the Federal Reserve Board and two of the twelve Reserve Bank presidents,¹⁰ and would have given that committee authority to make recommendations on discount rates to the Federal Reserve Board.¹¹ This plan was opposed by Eccles and others who favored granting responsibility for open market operations to the Board, and was never acted on by the Banking and Currency Committee. Instead, the House Banking Committee endorsed a new bill, H.R. 7617, which would have given exclusive authority for open market operations to the Board but required that the Board consult an advisory committee of five Reserve Bank presidents.

The Senate Banking Committee rejected the notion of granting exclusive authority to the Board. Instead, the

⁸ *Hearings Before the House Committee on Banking and Currency on H.R. 5357, 74th Cong. 1st Sess., 181-82 (1935).*

⁹ *Id.* at 182.

¹⁰ The chief executive officers of the Reserve Banks were then known as "governors," but for the sake of convenience will be described, as currently, as "presidents."

¹¹ H.R. 5357, 74th Cong., 1st Sess. (1935).

Committee reported and the Senate passed an amended version of H.R. 7617 that gave control of open market operations to a Committee consisting of the seven members of the Board and five representatives of the Reserve Banks -- four to be elected by four groups of three Reserve banks and one to be chosen from the country at large. The Board was thereby given de facto control of open market operations through its majority representation on the FOMC.

The Conference Committee adopted most of the provisions of the Senate bill, deleting only the provision for an FOMC member chosen from the country at large. The Conference Report amended Section 12A of the Federal Reserve Act to read as it does currently, granting the FOMC power to direct and regulate open market operations. The Reserve Banks were prohibited from either engaging or declining to engage in open market operations except in accordance with regulations and direction of the Committee.

The Conference Report was passed by the Senate without debate. On the House floor, Chairman Steagall described the Report:

This means that we fought out in this House, in the Senate, and in the conference the question of Government control of open-market operations, the rediscount rates, and the reserve requirements of the Federal Reserve banks, and as a result of this controversy we have a bill which writes into the law a safeguard that insures the investment of these powers in a Government-controlled board.

79 Cong. Rec. 13705. By making the presidentially-appointed Board a majority of the FOMC, the drafters believed that they

were ensuring that the predominant influence in monetary policy would be the Federal government (through the Board).

Discount Rate

The basic discount rate, and other related rates for more extended borrowing, are established by the Federal Reserve banks and determined by the Board of Governors of the Federal Reserve System. Specifically, Section 14(d) of the Federal Reserve Act states that each Federal reserve bank shall have the power:

To establish from time to time, subject to review and determination of the Board of Governors of the Federal Reserve System, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business

12 U.S.C. § 357. The provision that any rates established by the Banks shall be "subject to review and determination" of the Board has been interpreted to mean that the Board has the power to set the rates itself. An opinion of the Attorney General from 1919 stated:

[T]he Federal Reserve Board has the right, under the powers conferred by the Federal Reserve Act, to determine what rates of discount should be charged, from time to time by a Federal reserve bank, and, under their powers of review and supervision, to require such rates to be put into effect by such bank.¹²

This power was granted to the Board by the Federal Reserve Act as originally passed, but the legislative history of

¹² 32 Op. Att'y Gen. 81, 84 (1919).

the Act sheds little light on the interrelationship of open market operations and the setting of the discount rate. The Act's open market provisions were intended primarily to support the effectiveness of discount rates, as well as to facilitate transactions in foreign exchange and regulation of gold movements, establish a market for commercial bills and bankers' acceptances, and generate earnings for the Reserve Banks.¹³

Conclusion

The authority of the FOMC over open market operations is established by statute and unaffected by the Board's control of other monetary policy tools. To the extent that the FOMC expresses its wishes through a directive, it is to that directive and to past practice that one must look in determining what actions have been authorized.

¹³ See H.R. Rep. No. 69, 63d Cong., 1st Sess., 52-53 (1913); S. Rep. No. 133, Part 2, 63d Cong., 1st Sess., 26 (1913).