BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

December 8, 1978

STRICTLY CONFIDENTIAL (FR)
CLASS I - FOMC

TO: Federal Open Market Committee

FROM: Murray Altmann

President Black has asked me to distribute the attached memorandum entitled "Improving Control Over M-1 Growth".

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Office Correspondence

To Members of the Federal Open Market Committee Date December 5, 1978

From Robert P. Black
Alternate Member
Federal Open Market Committee

Subject Improving Control Over M_1 Growth

For most of this year the Committee's efforts to reduce gradually the rate of growth of M_1 have not been successful. Indeed, the growth rate appears to have accelerated during much of this period. Growth in the full year ending in the first quarter of 1978 (1Q78) was 7.7 percent. It was 8.1 percent in the year ending 2Q78 and 8.0 percent in the year ending 3Q78.[1/] It is true that the growth rate of M_2 has moderated during this period--to a large extent because of the effect of rising interest rates on the demand for commercial bank time deposits. Nonetheless, the behavior of M_1 in most recent quarters must be a source of serious concern to anyone interested in bringing the growth in the money supply under control to reduce inflation, unless he is prepared to give this particular aggregate a very low weight.

We believe that one important source of the recent control problem is the Committee's failure to establish an operational linkage between the long-run target for M_1 and the two-month tolerance ranges. Specifically, no element in the Committee's existing control procedures forces it to set two-month tolerance ranges that maximize the probability of hitting, or at least approximately hitting, the long-run targets.[2/] The consequences can

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[1/] These and comparable growth rates elsewhere in this memorandum are calculated on the basis of quarterly averages of monthly data.

[2/] The Bluebook regularly provides projections of quarterly averages for each of the four quarters in a given long-run target period. It seems clear, however, that these projections are not offered as an operationally meaningful tracking path to be followed to the long-run targeted value. Obviously, one can set down any of a variety of paths leading to a given point in the final quarter of the target period. As a practical matter,

be seen in Table 1, earlier versions of which I have distributed at recent meetings. Each row of the table shows target ranges and actual growth rates for the full-year period indicated. All of the data above the horizontal line are actual. The data below the line show Richmond's preferred growth paths as explained below. As the figures above the line show, the actual growth of M_1 has exceeded the upper limit of the original target range in each of the five year-long periods up to and including the year ending 3Q78.

In developing our positions on policy at recent meetings, we in Richmond have tried to arrive at two-month tolerance ranges that are consistent with the Committee's longer run goal of gradually reducing the trend rate of growth in M_1 and thereby bringing actual growth back into closer alignment with the announced targets. Essentially our approach sets a near-term objective for M_1 growth in the current quarter that serves as an intermediate goal linking the long-run target and the two-month tolerance range. It should be emphasized that we regard this approach as an ad hoc supplement to the Committee's existing procedures and not as a substitute for a thorough reevaluation of these procedures. We share the belief of many both inside and outside the System that the Committee should adopt an improved target-setting procedure, perhaps along the lines of the one outlined in the memorandum by William Poole that Frank Morris distributed in July.[3/] Further, we believe there should be a shift away from the use of the Federal

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the important questions are, first, what Federal funds rate movements are required to move along a given path and, second, whether or not the Committee is prepared to accept these movements. In practice, it seems to us that the Bluebook projections usually set out paths assumed to be consistent with near-term movements in the Federal funds rate that are likely to be acceptable to the Committee rather than realistic paths that are likely to lead to the achievement of the Committee's stated long-run targets.

[3/] See Poole's memorandum, "One Year Money Growth Targets," July 12, 1978, pp. 8-16.

funds rate as an operating target to some sort of a reserve target consisting of the volume of reserves needed to support the likely growth in government, interbank, and time and savings deposits plus an additional amount to support the desired rate of growth in the deposit component of M_1.

The remainder of this memorandum illustrates the approach with a description of how Richmond developed its policy recommendations for the October 1978 meeting. Using this particular meeting has some disadvantages because of the uncertainties associated with the introduction of automatic transfers that the Committee confronted at that meeting. On the other hand, the meeting is still fresh in the minds of participants, and most of the money supply data available immediately before the meeting have not yet been revised.

Description of the Approach

Consider the data for the four target periods beneath the line in Table 1. Look first at the columns headed "M_1 Without ATS," which show the targets and growth rates Richmond would have preferred had automatic transfers not been initiated.[4/] At the time of the October meeting, the target growth ranges for the first three of the four periods had already been set. As shown on the last line, we felt that the M_1 target range should be renewed for the 3Q78-3Q79 period, the period for which long-run targets were set at the October meeting.

The "desired actual path" (7.5 percent, 7.0 percent, 6.5 percent, and 6.3 percent) is the path that Richmond felt M_1 should trace over the next four quarters, expressed in terms of successive full-year growth rates.

[4/] It is necessary to abstract from the effect of ATS initially to establish continuity with previous target settings.

This path is admittedly an arbitrary one, but one that we believe is both defensible and attainable. Beginning with the period ending 4Q78, the path reduces each successive full year growth rate by one-half percentage point up to the final period, when the rate is reduced two-tenths of a percentage point. This path seems to us to represent a gradual and therefore realistic reduction in the longer run rate of M_1 growth. It would not bring actual M_1 growth within the previously announced ranges for the periods ending 4Q78 and 1Q79. It would, however, bring the actual rate down to the top of the range in the period ending 2Q79 and slightly within a renewed 4.0-6.5 percent range in the period ending 3Q79. Note that from the standpoint of the October meeting, an important element in this strategy was that it established a clearly defined objective for the quarterly average level of M_1 in 4Q78.

Consider now the columns headed "M_1 With ATS." The figures shown here are simply the figures shown in the "M_1 Without ATS" column adjusted to take account of the expected downward effect of ATS on M_1 growth. We agreed with the Board staff's estimate in the October Bluebook that over the 3Q78-3Q79 period, ATS would reduce M_1 growth by 3 percentage points. Hence the 6.3 percent actual M_1 growth desired for this period without consideration of ATS becomes 3.3 percent when account is taken of ATS. The other figures in the revised growth path (7.2 percent, 5.8 percent, and 4.4 percent) were derived by assuming that the shifts from demand to savings deposits induced by ATS would be evenly distributed over the full-year period. The staff believed a target range of -1/2 to 5 percent for the year ending 3Q79 would be equivalent to maintaining the old range in the absence of ATS. (See Alternative B on p. 5 of the October Bluebook.) We agreed with this estimate and favored its adoption as the long-run target.

The Short-Run Tolerance Range

For our suggested strategy to succeed, it is essential that the two-month M_1 tolerance ranges be set in such a way as to insure to the greatest extent possible that the intermediate quarterly target will be hit. At the October 1978 meeting, this meant setting an October-November tolerance range that would maximize the chances that the desired quarterly average M_1 level for 4Q78 would be hit.

We derived the October-November tolerance range as follows from the data shown in Table 2.[5/] First, our desired 7.5 percent actual longer run growth path in the absence of ATS implied that the M_1 level in 4Q78 should be $362.2 billion (the 4Q77 level of $336.9 billion x 1.075). We assumed that the ratios of the monthly levels to the quarterly average level would be the same in 1978 as in 1977. This assumption produced the pattern of monthly levels shown in the left-hand column of Table 2. The right-hand column of Table 2 shows the monthly pattern with the November and December levels adjusted for the estimated effect of ATS. As indicated, our analysis suggested that a November M_1 level of $360.4 billion would be consistent with attaining the desired quarterly average M_1 level for 4Q78 after taking account of ATS. Since the actual September M_1 level shown in the October Bluebook was $360.9, the desired November level implied that the two-month tolerance range for October-November should be essentially flat.

On these grounds we recommended an October-November tolerance range for M_1 of -2 to +2 percent. This range was well below the range suggested by most of the Committee members and other participants and well below the range eventually adopted. It was derived, however, directly from a target level for the current quarter that is itself consistent with a gradual decline

[5/] All short-run data mentioned in what follows are seasonally adjusted. Short-run growth rates are seasonally adjusted annual rates.

in the long-run growth of M_1. The range appeared low relative to the desired long-run path because (1) the September level, which is the base, was high in relation to surrounding months and (2) the introduction of ATS affected the end month (November) but not the base month (September). While the difference between the two-month range and the desired longer run growth rate is not normally as great as in this particular instance, we have encountered differences of several percentage points fairly frequently in using this approach over the last six months or so. The general reason, of course, is the considerable sensitivity of the two-month growth rates, when annualized, to fairly small differences in the dollar levels of the base and end months.

Conclusion

While the approach outlined in this memorandum is in no sense an adequate substitute for more rigorous improvements in the Committee's control procedures, we believe it might help the Committee to control the aggregates more effectively in the existing procedural environment.[6/] Essentially, the approach would add two important elements to the Committee's existing procedures: (1) it would provide an intermediate objective for the current quarter that would be linked to both the long-run target and the two-month tolerance range and (2) it would derive the two-month tolerance range directly from the longer run growth objectives.

[6/] We recognize that the recently enacted Humphrey-Hawkins legislation may require changes in the way long-run targets are established and reported to the Congress. We believe, however, that the approach described in this memorandum would be relevant to any procedure that generally resembles the current procedure.

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Table 1

LONGER RUN RANGES FOR THE MONETARY AGGREGATES AND ACTUAL GROWTH RATES IN SUCCESSIVE PERIODS

Base Period	Target Date	M_1 Target %	M_1 Actual %	M_2 Target %	M_2 Actual %
2Q 75	2Q 76	5.0-7.5	5.4	8.5-10.5	9.6
3Q 75	3Q 76	5.0-7.5	4.6	7.5-10.5	9.3
4Q 75	4Q 76	4.5-7.5	5.8	7.5-10.5	10.9
1Q 76	1Q 77	4.5-7.0	6.4	7.5-10.0	11.0
2Q 76	2Q 77	4.5-7.0	6.8	7.5-9.5	10.8
3Q 76	3Q 77	4.5-6.5	7.9	7.5-10.0	11.1
4Q 76	4Q 77	4.5-6.5	7.9	7.0-10.0	9.8
1Q 77	1Q 78	4.5-6.5	7.7	7.0-9.5	8.8
2Q 77	2Q 78	4.0-6.5	8.1	7.0-9.5	8.4
3Q 77	3Q 78	4.0-6.5	8.0	6.5-9.0	8.2

		M_1 Without ATS		M_1 With ATS	
		Announced Target %	Desired Actual Path %	Announced Target %	Desired Actual Path %
4Q77	4Q78	4.0-6.5*	7.5	4.0-6.5*	7.2
1Q78	1Q79	4.0-6.5*	7.0	4.0-6.5*	5.8
2Q78	2Q79	4.0-6.5*	6.5	4.0-6.5*	4.4
3Q78	3Q79	4.0-6.5	6.3	-½-5	3.3

*target range previously announced

Table 2

Monthly M_1 Paths in 4Q78

	Monthly M_1 Path Without ATS ($ billions)	Monthly M_1 Path With ATS ($ billions)
1978 October	361.1	361.1
November	361.5	360.4
December	364.0	361.9