



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

October 12, 1976

CONFIDENTIAL (FR)
CLASS II - FOMC

TO: Federal Open Market Committee

FROM: Arthur L. Broida *ALB*

Mr. Eastburn has asked us to distribute the attached memorandum entitled, "Procedures for Setting Longer Run Targets for Monetary Aggregates," which was prepared at the Philadelphia Reserve Bank, together with a cover memorandum from him.

Attachment

FEDERAL RESERVE BANK OF PHILADELPHIA

PHILADELPHIA, PENNSYLVANIA 19105

OFFICE OF THE
PRESIDENT

October 6, 1976

To: Federal Open Market Committee

From: David P. Eastburn

I am enclosing a staff memorandum relating to long-term monetary growth targets which was prepared at my bank. The memorandum is concerned with basic principles underlying the long-term target and is being sent to you for use in setting the long-term target this month. It may also be helpful in the discussion of technical aspects of monetary policy.

This memorandum takes as its point of departure the view that the primary function of longer-run targets is to foster sound monetary policy, but it recognizes also the important role the targets play in communicating the thrust of policy to those outside the System. It suggests that both objectives could be furthered with a fixed-base target. In this context, it recommends that each one-year target path take as its base the midpoint of the previous target rather than the actual level. The effect of this suggestion would be to dissociate the long-run target from transitory market forces and so further refine the Committee's move toward a longer-term perspective on policy. In addition, the dissociation of target from market forces would allow a more accurate communication of the thrust of the Committee's policy to outsiders. An important result would be that the Committee would be less subject to the criticism of allowing drift in target bases.

Based on procedures discussed in the memorandum, M_1 currently is several billion dollars below a suggested fixed-base path. Return to this path would require a one-year target growth range for M_1 of 7 to 9 1/2 percent from current projections of the third quarter figures.

While I would not necessarily favor such an M_1 range, I have found the perspective it provides useful in my reflections on policy. I hope you, too, might find it and the supporting memorandum of some value.

FEDERAL RESERVE BANK OF PHILADELPHIA
PHILADELPHIA, PENNSYLVANIA 19105

CONFIDENTIAL (FR)
October 6, 1976

DEPARTMENT OF RESEARCH

To: Mr. Eastburn
From: Ira Kaminow
Subject: Procedures for Setting Longer Run Targets for Monetary Aggregates

Introduction and Summary of Conclusions

The longer run monetary targets were adopted in recognition of the influence of money on basic economic objectives. There is now widespread agreement that the rate of monetary expansion has a substantial influence on output and inflation. While important details of this influence are subject to controversy, three seem to underlie use of the one-year target:

1. Shorter run trends in monetary growth rates (lasting only a quarter or two) are far less important to the major non-financial variables than longer trends.
2. Cyclical fluctuations in output are related to changes in monetary growth trends of intermediate duration (perhaps a year or two).
3. Inflation trends are linked to longer term (a year or more) trends in monetary growth rates. Indeed, a long-term decline in monetary growth is widely viewed as the most promising method of bringing inflation down to desired rates.

Presumably, then, the primary rationale of a longer run target path is to provide part of the game plan for achieving price and output stability. The particular one-year targets requested by Congress in Concurrent Resolution 133 have the added purpose of providing a concise way for the Committee to communicate its views on appropriate monetary policy. Thus, the procedures for setting longer run targets should be designed first and

foremost to foster sound economic policy. In addition, they should allow easy and accurate communication of the Committee's views on policy.

It would seem from this that macroeconomic factors are the most relevant for determining the longer run path.* That is, the target path should respond mainly to changes in perceptions of the money-output-inflation relation or to changes in the desired mix of output and inflation. Changes in other factors have little if any economic relevance for the optimal monetary growth path. In particular, previous undershoots or overshoots in the aggregates and monetary data revisions in the main ought not to influence the target path except to the extent that they change the perceived relationship between policy and goal variables. Current evidence indicates that monetary growth movements of short duration (under six months or so) as a rule do not change this relation. Therefore, the procedure of allowing the target path base (and hence the whole path) to drift up or down by the full amount of every quarterly miss or data revision would seem to detract from an otherwise sound policy. If a given monetary growth path is in the Committee's judgment the best, there is little if any economic justification for allowing it to change simply because quarterly monetary data differ from anticipations.** With luck, misses and data revisions will cancel over time

*Other objectives of monetary policy could in principle play a role. If, for example, a particular setting was thought to threaten to produce financial market instability or severe disintermediation, the Committee would have to weigh those risks. By and large, however, the time horizon relevant to other Fed objectives is far shorter than the one-year duration of the target path, and so they are not generally considered in setting the long run target. These other objectives may, of course, influence the Committee's success in achieving the target.

**This does not preclude changes in the target path if monetary misses are diagnosed as symptomatic of underlying (i.e. nontechnical and nonrandom) shifts in the economic structure such as the recently hypothesized shift in the demand for money. Even in these cases, however, the path should be revised actively and not allowed to "drift."

so that there will be no consistent bias, even though periods of error long enough to have adverse impacts still could occur. At worst, without the perspective of a fixed base path, errors can cumulate and lead to systematic deviations that impose high costs on the economy.

"Base drift" (in Governor Wallich's terms*) not only has the potential for reducing policy effectiveness, it also detracts from the Committee's ability to communicate policy accurately to the Congress and the public. If the target path moves with every quarterly miss or data revision, the path combines random technical influences with underlying policy. This makes it more difficult for outsiders to accurately gauge the "true" thrust of policy. What may perhaps be worse is the danger that the reporting requirement can feed back into policy effectiveness. After a prolonged series of misses, the Committee might well find itself "locked in" if it is reluctant to report the need for a substantial "make-up" which, under current procedures, might appear to be a major policy change.

It is concluded, therefore, that both economic and communicative goals could be enhanced if the Committee revised its current procedure of specifying monetary targets in terms of growth rates from actual values observed at the beginning of the target period. As an alternative procedure it is recommended that targets be specified in terms of growth rates from predetermined points in the previous target range. The midpoint of the previous target range could be used as the base for this purpose.**

*Henry C. Wallich, "Some Technical Aspects of Monetary Policy" remarks presented at the Sixth Annual Washington Roundtable of the Institutional Investor Institute, May 1976.

**A substantively equivalent but formally different alternative to the midpoint of the previous target is discussed later in this memorandum.

It is further suggested that in view of the significant role played by long-term targets, the Committee can most accurately communicate its views on policy by officially voting on these targets.

Current Procedure

Since the introduction of the Concurrent Resolution, the Committee has adopted six target growth-rate ranges each for M_1 , M_2 , and M_3 . Chart 1 plots these ranges for M_1 (the wedge shaped areas) along with actual M_1 values. The Chart points out that more or less constant target growth-rate ranges have led, under current procedures, to shifting paths. It could well be difficult to justify this movement in the target. If the wedge adopted early in 1975 was most appropriate to achieving output and inflation goals, it is hard to see how the subsequently adopted targets became more appropriate simply because M_1 growth deviated from anticipations.

To suggest this phenomenon in a slightly different way, we plot in Chart 2 the six successive one-year-out M_1 target ranges reported to Congress. The lower line in Chart 2 plots the actual M_1 values that were observed at the beginning of the corresponding one-year periods. By comparing the time profile of initial M_1 levels with the target ranges, we see that initial M_1 has had as much of an influence on the target as has the Committee.

An Alternative Procedure

The danger of building errors into target paths could be substantially avoided if the Committee chose as the base from which to measure monetary growth the midpoint of the previous target range. Chart 3 illustrates the way this procedure would have worked in 1975-76 had the Committee decided on the same growth-rate ranges it in fact chose. Each wedge shows successive one-year target ranges. Note how the targets stay on a constant track.

CHART 1 ONE-YEAR M₁ TARGET RANGES ADOPTED FROM APRIL 1975 TO JULY 1976

BILLIONS OF DOLLARS,
LOG SCALE

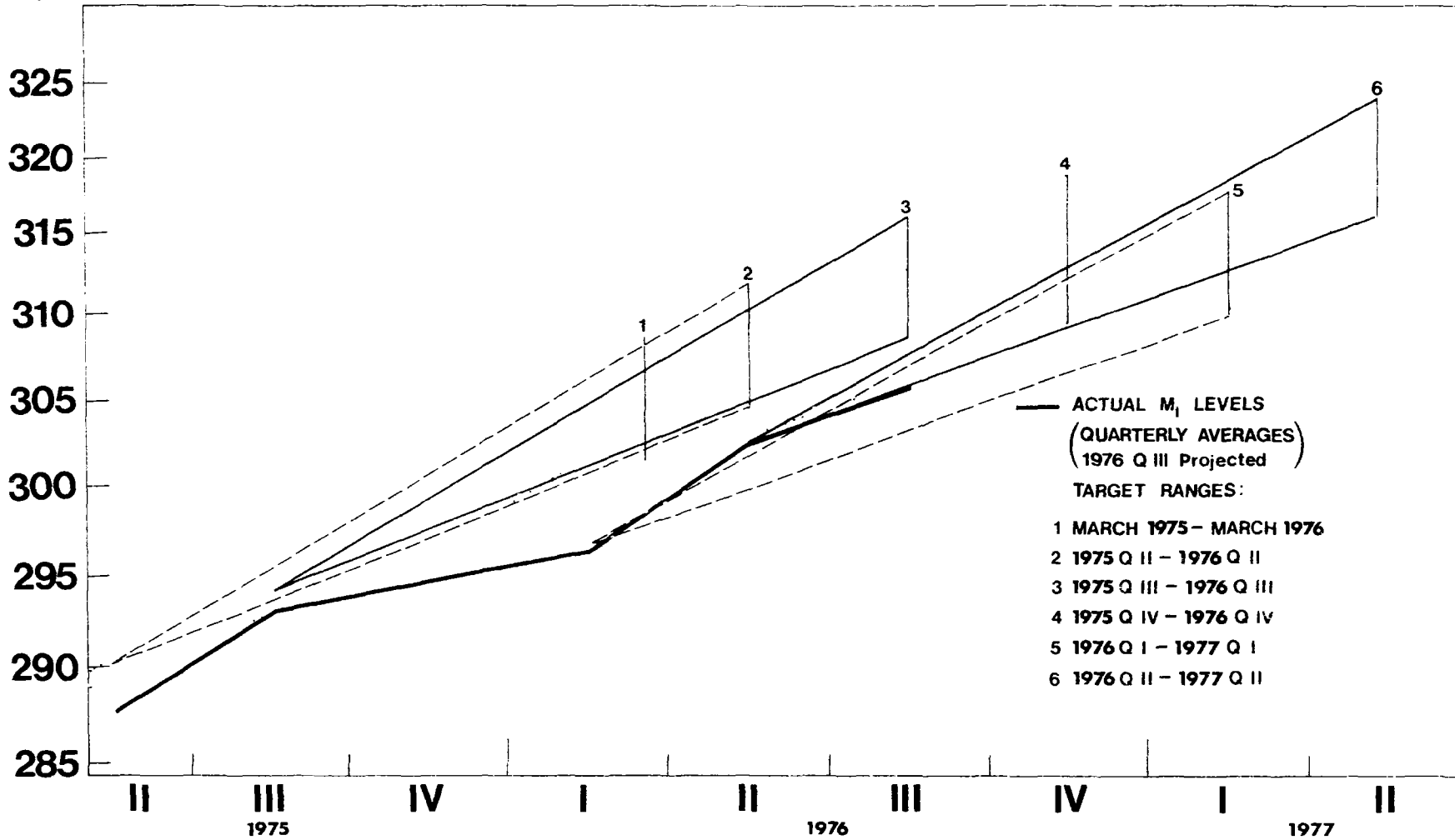
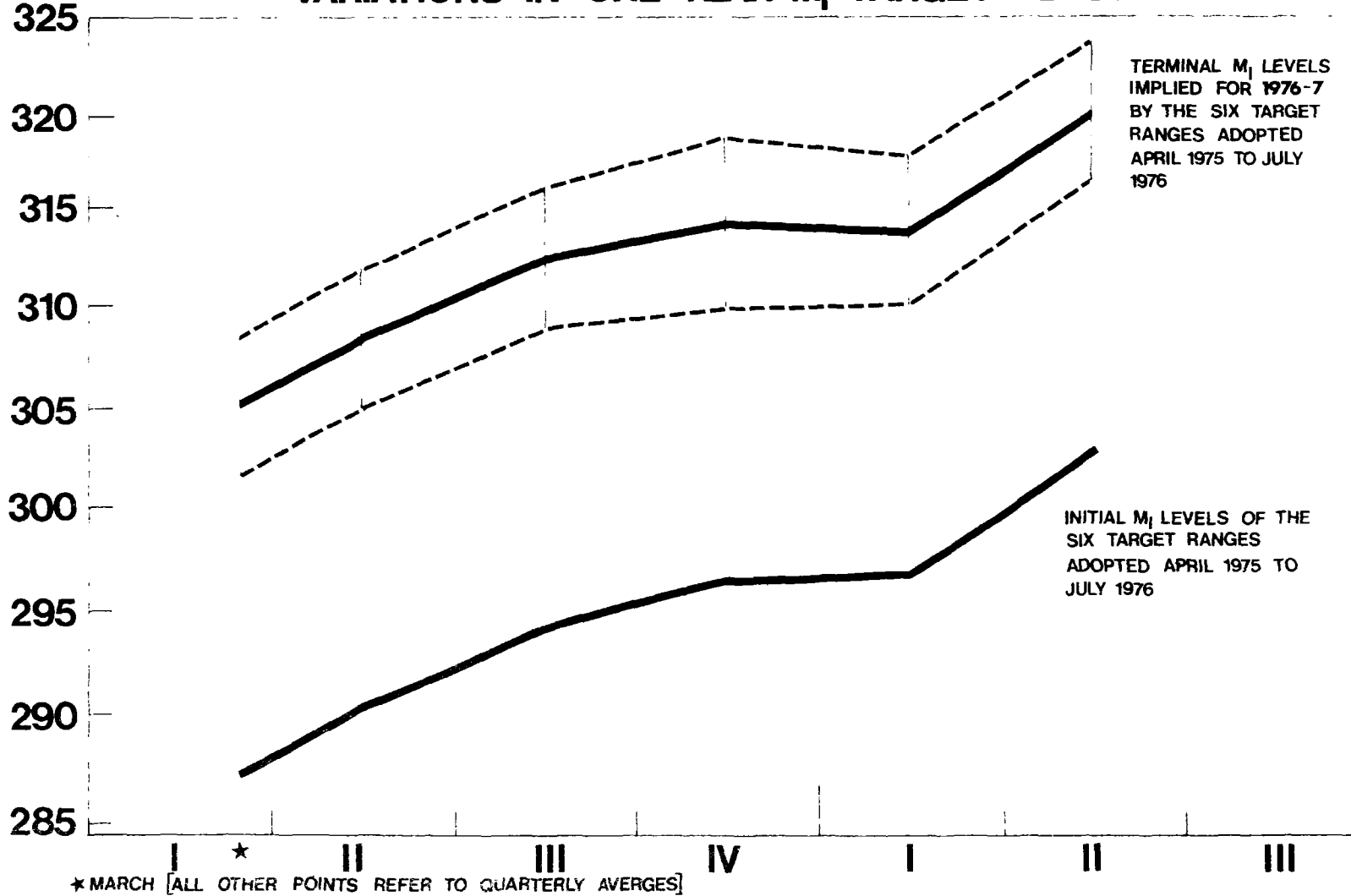


CHART 2

VARIATIONS IN INITIAL M_1 HAVE LARGELY DETERMINED
 VARIATIONS IN ONE-YEAR M_1 TARGET LEVELS

BILLIONS OF DOLLARS,
 LOG SCALE



BILLIONS OF DOLLARS,
LOG SCALE

CHART 3

**TYING THE BASE OF THE NEW TARGET RANGE TO THE
PREVIOUS TARGET'S MIDPOINT WOULD HAVE PRODUCED
THESE RANGES IN 1975-6**

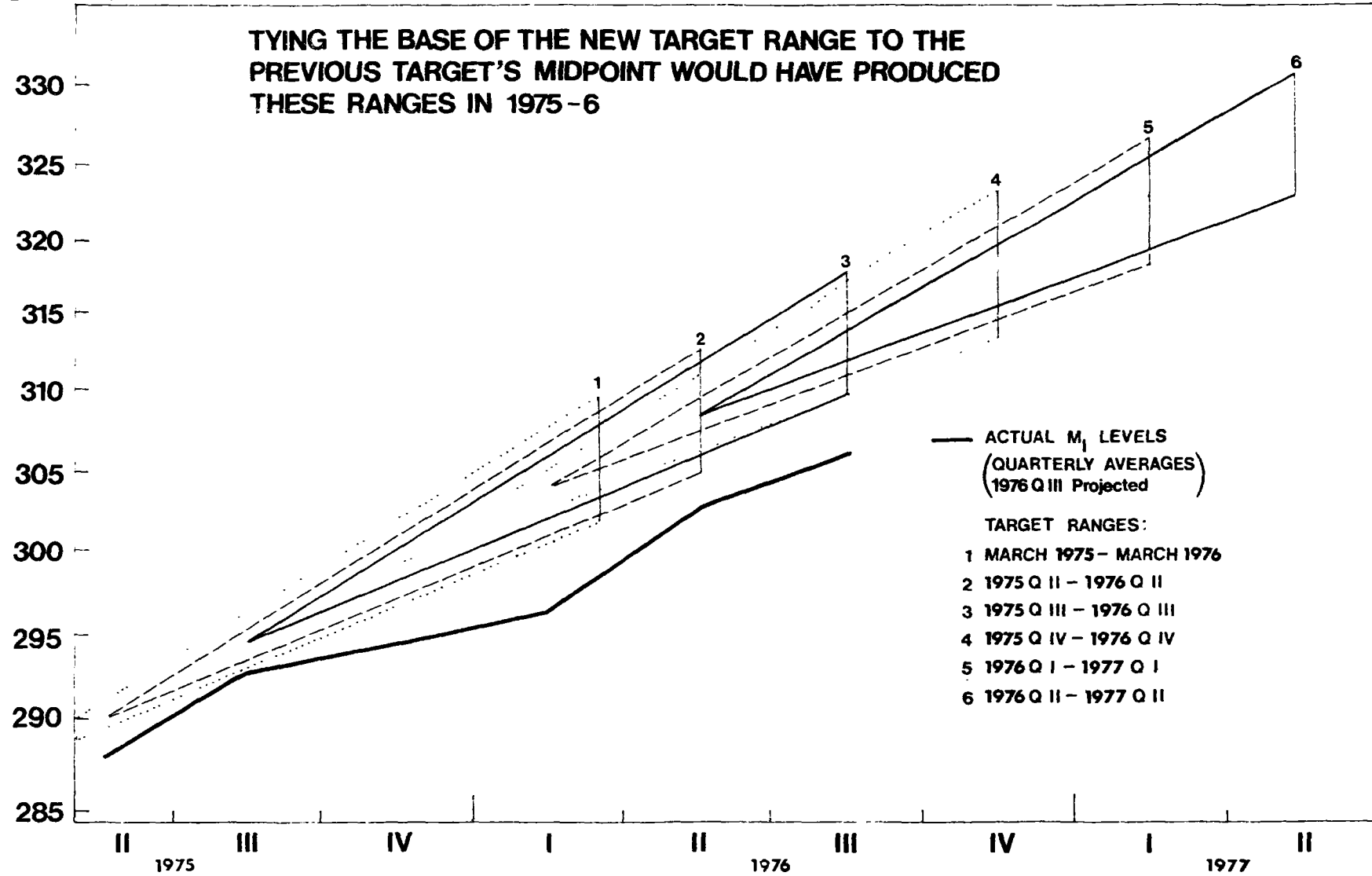
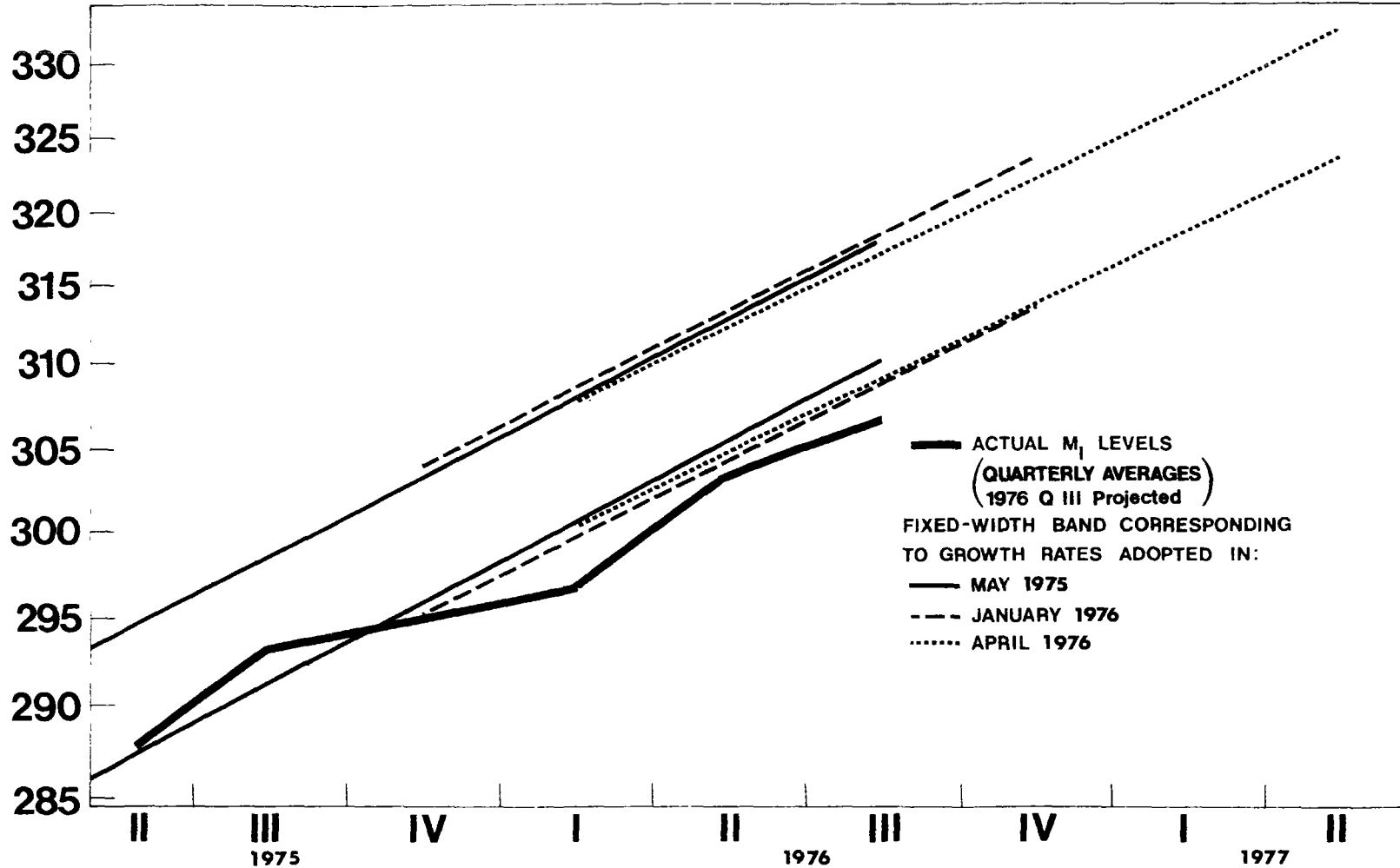


CHART 4
ONE SUGGESTION FOR FIXED-WIDTH TARGETS
WOULD HAVE PRODUCED THE FOLLOWING RANGES
FOR 1975 Q II TO 1977 Q II

BILLIONS OF DOLLARS,
 LOG SCALE



Note also that while M_1 was frequently within or near the target range in Chart 1 (because the target was constantly accommodated to actual M_1 levels), it consistently was below the target of Chart 3. Thus, using current Committee procedures, third quarter 1976 M_1^* is just about at the floor of the target range; using the alternative procedure described here, it is about \$6 billion below the target floor.

The figure of \$6 billion, however, overstates the shortfall. Current procedures call for reporting growth-rate ranges from single points. This procedure--if taken literally--implies wedge-shaped targets with a very narrow dollar range early in the target period and a wide range later in the period. It would seem however, that a more accurate interpretation of the Committee's preferences would call for a range of tolerance as wide at the beginning of the period as at the end. One possible "fixed width" procedure is illustrated in Chart 4 for M_1 targets adopted in 1975 and so far in 1976. Based on this modification, third quarter M_1^* was \$3 billion below the floor.

Whether one uses target wedges or fixed-width targets however, it is important to note that M_1 currently is several billions under the floor of target ranges that have been purged of "base drift." This would seem to be information of value to the Committee and information that is available only through the perspective of "fixed" base paths.

It should be emphasized that use of the "fixed" base procedure does not deprive the Committee of any flexibility in setting targets. The Committee could change the target path as frequently and in whatever direction it chose; but it would be the Committee, acting on new information and new views, not the vagaries of random market forces, that determined the target.

*Based on available projections.

A Suggestion for Changing Reporting Procedures

The discussion of the disadvantage of target wedges suggests a change in the form in which targets are reported to the Congress. Under current procedures, the Committee specifies only the monetary ranges for four quarters out; it does not report nearer term tolerance ranges. There is a danger, however, that this is not clearly understood, and current procedures may be more misleading than necessary in this regard. We noted in the previous section that the procedure of describing targets in terms of growth-rate ranges from single base points suggests target wedges of the sort depicted in Charts 1 and 3. These wedges in turn imply dollar ranges in the early part of each target period that are probably narrower than the Committee intends. This could lead to unnecessary misunderstanding and criticism should the aggregate fall outside the overly narrow ranges.* In addition, money market participants could well overreact to apparent "misses" that are in fact within a more reasonable range of tolerance.

One way to reduce this potential source of misunderstanding is to describe targets in terms of fixed width bands as illustrated in Chart 4. Thus the Committee would specify to the Congress a single growth rate for each aggregate target band. The range would be provided by specification of the width of the band. This suggestion, if adopted, would modify only form, not substance, because any set of four-quarter-out target ranges could be specified either in terms of wedges or fixed-width paths.

Record of Policy Action

Apart from the operational merits of the proposed scheme, it would

*Because the target ranges are updated each quarter, the Committee is always in the early and hence narrow part of the current wedges.

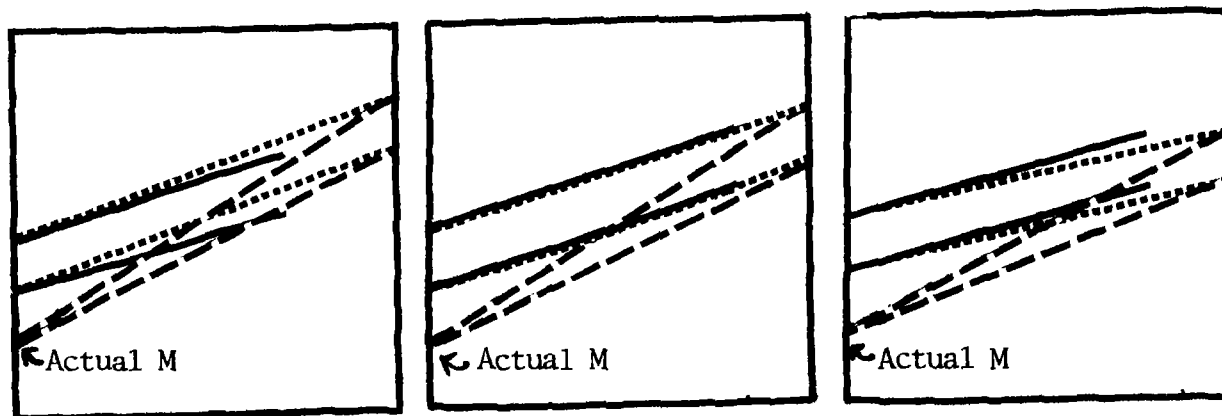
have the further advantage of allowing clearer communication of the System's underlying objectives to the public and to Congress. This is because the scheme distinguishes the basic thrust of policy from technical random factors. So, for example, in periods when there might be severe undershoots or overshoots which must be "made up," the Committee could emphasize the underlying continuity of its policy by noting the stability of the target path, despite the need for temporary acceleration or deceleration in the actual growth rate. We offer below possible wording for a "typical" Record of Policy Action.

The Committee agreed that the M_1 growth band adopted in April continues to be consistent with its broad economic objectives and extended the $5 \frac{3}{4}$ percent growth in the band through the second quarter of 1977. The Committee chose, however, to slow growth in the M_2 and M_3 target growth bands by $\frac{1}{4}$ percentage point to $8 \frac{3}{4}$ percent for M_2 and $10 \frac{1}{2}$ percent for M_3 . The width of all paths remain unchanged from April. Average growth rates from actual second quarter 1976 levels consistent with achieving these bands by the second quarter of 1977 are: M_1 6 to 9 percent, M_2 7 to 10 percent and M_3 7 to 10 percent.

Switching to fixed base paths may well require some public education prior to a change in procedures. However, after a short period during which those outside the System gain experience, "Fed watchers" could be expected to feel comfortable with the new procedures.

Staff Presentation

The adjustment in procedures discussed here need not have substantial impact on oral or written presentations by the FOMC staff. Policy alternatives in the Bluebook and the implications of policy alternatives in the Greenbook would, of course, be presented in terms of fixed base paths rather than growth in the aggregates themselves. The following alternatives are illustrative, respectively of, more expansion, no change, and more contraction in policy.



Expansionary Alternative No Change Alternative Contractionary Alternative

——— current path - - - - - required path
 alternative for for actual
 proposed target path money stock

In addition, the staff could calculate, for each alternative, growth ranges on actual magnitudes required to achieve the target path.

One other change might be valuable--inclusion in the Bluebook of historical charts (going back perhaps two years) showing actual money stock and target ranges (see, for example, Chart 3 and Chart 4). This would provide the Committee long-run perspective and allow a simple comparison of desired and actual monetary movements.

Voting on the Long-Run Targets

The long-run targets are principal representations of monetary policy; one might say that they are monetary policy insofar as inflation and output goals are concerned. In view of the important role played by these targets, it would seem appropriate that the FOMC vote on them.

The spotlight on the Fed is becoming brighter. It may not be long before pressure is brought on the Committee to publicize the vote on the long-range target. Recent experience has shown that it may be possible to put off demands for more openness in government for a time, but not forever.