BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
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October 14, 1977

CONFIDENTIAL (FR)
CLASS II   FOMC

TO: Federal Open Market Committee

FROM: Arthur L. Broida

Attached is a memorandum from the Subcommittee on the
Directive dated today and entitled "Weighting of M-1 and M-2 for
2-month operating ranges." It is contemplated that this memorandum
will be discussed at next week's FOMC meeting, under agenda item 6.

Attachment

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CLASS II - FOMC

TO: Federal Open Market Committee   DATE: October 14, 1977

FROM: Subcommittee on the Directive[1]   SUBJECT: Weighting of M-1 and
                                                         M-2 for 2-month operating
                                                         ranges.

In response to questions raised at the September 20 meeting
of the FOMC, the Subcommittee on the Directive was asked to consider
--in time for the next meeting--whether deviations from the 2-month
operating range for M-2 might appropriately be given more weight than
is now the case in influencing the Manager's operations. At present
M-1 and M-2 are given approximately equal weight.

Because of time pressures, the subcommittee's conclusions
must be highly tentative. Staff work on the subject has been assigned
and will continue over the next several months. As of now, based in
part on preliminary analysis, we do not feel warranted in recommending
that the approximately equal weight of M-1 and M-2 be changed. But
we do believe that allowance might be made for the greater element of
"noise" or unpredictability in short-run fluctuations of M-1 relative
to M-2 that appears to have developed recently. Thus, the subcommittee
would suggest that the 2-month tolerance range, as well as any zone of
indifference within the tolerance range, could be somewhat wider for
M-1 than for M-2. Such a wider range would reduce the impact on the
Manager's operations of relatively minor deviations in M-1 growth
from the expected rates and would therefore in effect reduce the
importance of short-run variations in M-1.

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[1] Messrs. Eastburn, Gardner, Partee (Chairman), and Volcker.

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The FOMC moved in this direction at its September meeting when it established a 5 percentage point range for M-1 and a 4 point range for M-2. We do not believe that an appreciably wider range for M-1 is required at this point, though in periods of substantial uncertainty (such as after tax rebates or around year-end) a wider range might be desirable. At the same time, we should point out that M-2 may also have a large unpredictable or transitory component at certain times. This is most likely to be the case when market rates are approaching Regulation Q ceilings, either from above or below, and hence when large one-time movements of funds between time and savings deposits and market instruments may take place.

For such reasons the subcommittee believes that changes in the width of ranges and/or in the weights attached to M-1 and M-2 may be appropriate from time to time. However, if such changes are made too frequently or without compelling reason, there is the risk that the public will come to believe that the FOMC is capricious in its decision-making.

In assessing the weights to be assigned M-1 and M-2 in the short-run--and also the width of the short-run operating ranges--the subcommittee took the view that such judgments would not necessarily affect, or be affected by, weights assigned longer-run ranges for the aggregates adopted by the FOMC, so long as the importance of both aggregates over the longer-run to the FOMC did not differ by a very wide margin. Of course, if the FOMC were to decide that one of the

aggregates is of only minimal importance, then it would not seem
reasonable to place much weight on that aggregate in short-run
operations.

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Under present procedures, the FOMC employs the two-month
tolerance ranges to provide flexibility for the Desk to adjust the
Federal funds rate between meetings to levels different from the
"mid-point" initially established by the FOMC. Incoming data on the
aggregates over the short-run thus serve as signals to adjust the funds
rate--with the objective of contributing to a satisfactory economic
performance and of encouraging longer-run growth in the family of
aggregates within the FOMC's longer-run ranges. In that context,
weights assigned M-1 and M-2 tolerance ranges should involve the
relative ability of the two aggregates to give reasonably accurate
signals, within a short period, of longer-run tendencies in the economy
and the aggregates themselves. Short-run weights would depend in part,
therefore, on such factors as the unpredictability, or extent of
random movement, of the two series and the degree to which deviations
in the aggregates from expectations convey information as to future
economic performance.

In our discussions, a number of arguments for increasing the
weight of M-2, and/or for widening the short-run operating range for
M-1, were considered.

First, changing institutional practices--for example, NOW
accounts, telephonic transfers between demand and savings deposits,

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business savings accounts--in recent years appear to have increased

the transactional balances held in time and savings deposits, which

are a component of M-2 but not of M-1. The increased ease of transfer

between demand and savings accounts may have diminished the significance

of short-run variations in M-1 relative to M-2.

Second, M-1 is in any event more volatile in the short-run than

M-2. The mean absolute deviation of weekly M-1 growth about its average

over the past 18 years was 9.8 percentage points and of monthly M-1

3.1 percentage points. For M-2, the weekly and monthly average devia-

tions were 6.3 and 2.9 percentage points, at an annual rate, respectively.

However, M-1 has been more volatile both absolutely and relative to M-2

in the past several years; since 1972 the average absolute monthly

deviation in M-1 was 3.5 percentage points and in M-2 2.7 percentage

points.

Third, M-1 appears to be less predictable than M-2 in the

short run. From 1974 to date, the average absolute error (without

regard to sign) in the staff's forecast of two-month growth rates for

M-1 was one percentage point more than for M-2--averaging 2.8 percentage

points at an annual rate as compared with 1.8 percentage points for

M-2. The difference was more marked in 1977; thus far this year the

average absolute error for M-1 has been 3.3 percentage points and for

M-2 1.7 percentage points.

Fourth, deviations in M-1 growth over the short-run bear more

than 50 per cent weight under the present FOMC procedures that give M-1

and M-2 approximately equal weight. This is because M-1 is also a

component of M-2--about 40 per cent of it--so that deviations in M-1 growth affect deviations in M-2 growth. Taking account of effects on both M-1 and M-2, deviations in M-1 growth presently have about a 70 per cent weight in affecting the Manager's operations.

Some of the arguments for increasing the weight assigned to M-2 relative to M-1 in the short-run do not appear very strong, at least from our analysis to date. Both M-1 and M-2 exhibit considerable month-to-month variability, although, as noted above, the variability of M-1 has been somewhat higher, especially in recent years. The average variability of M-2 has been increased, of course, by large movements of funds into and out of time deposits when market interest rates move into the area of Regulation Q ceiling rates. But a month-to-month variability in M-2 that is not far different from M-1 also is consistent with the view that the high variability of M-1 does not reflect to any significant extent erratic, short-run shifts of funds between demand and time and savings deposits[1]--though of course there has been a longer-run structural shift of funds from demand to savings accounts in recent years.

Prediction errors were significantly larger for M-1 than for M-2 over 2-month periods, but these can be interpreted in two different ways. They may suggest that M-1 is a less reliable series than M-2.

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[1] On a quarterly basis, for example, there was no evidence that forecast errors in M-1 in our quarterly econometric model were associated with forecast errors in the opposite direction in the time and savings deposit component of M-2 (after correcting the M-1 forecasting equation for the downward shift in the demand for M-1 since 1975).

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On the other hand, these prediction errors may themselves convey important information. For instance, highly tentative staff research suggests that M-1 forecast errors bear a significant relation to GNP forecast errors. Based on preliminary tests with the quarterly econometric model--and after making allowance for the downward shift in the demand for M-1 since early 1975--it appears that the model's forecast errors of M-1 in a quarter were a reasonably good predictor of the model's forecast errors in nominal GNP for that quarter, or for one quarter ahead, and that inclusion of broader aggregates added little further information.

These tests are no more than suggestive at this stage. They, of course, were not run on the monthly and bi-monthly money supply projections that affect inter-meeting Federal funds rate adjustments and therefore do not apply directly to the problem being addressed by the subcommittee. Nor were they based on the actual staff quarterly GNP and interest rate forecasts. Moreover, they have to be assessed in light of the findings over the years that M-1, M-2, and the broader monetary aggregates as well, all bear fairly close relationships to nominal GNP--though with variable lags and with varying degrees of closeness depending on the time frame.

The subcommittee has requested the staff to continue research in this area. Meanwhile, we believe that the wisest course for the FOMC at this time is, as noted earlier, to widen the short-run tolerance range for M-1 relative to M-2.