



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

September 5, 1973

To: Federal Open Market Committee

From: Arthur L. Broida

Enclosed for your information is a copy of an analysis of problems of controlling the money supply. This document has been submitted by Chairman Burns to the Joint Economic Committee, for inclusion in the record of hearings before the JEC on June 27, 1973.

A handwritten signature in cursive script that reads "Arthur L. Broida".

Arthur L. Broida
Secretary
Federal Open Market Committee

Enclosure

Insert for June 27, 1973, JEC transcript

The following material was submitted for the record by Mr. Burns.

It is useful to introduce this analysis of problems in controlling the money supply with a statement as to the broader perspective of monetary policy objectives.

Emphasis on the money supply as an objective of Federal Reserve monetary policy has varied with economic and financial circumstances. To the extent that the System has sought to control rates of growth in the money supply, it has generally been with a view to achieving that objective over a span of months. The powers available to the Federal Reserve permit reasonably effective control over a period of several months. Precise control of the money supply over shorter periods is much more difficult. Fortunately, precise control of very short-term fluctuations in money is comparatively unimportant, since only the longer-lasting changes in money supply appear to have much economic significance.

Factors which limit the System's ability to control money supply in the short run include the indirect relationship between Federal Reserve actions and the money supply, the sizable and growing proportion of deposits not subject to Federal Reserve reserve requirements, the inherent short-run variability of money demand, and deficiencies in the adequacy and speed with which the statistics

-2-

necessary in monitoring System actions become available. Some of these factors can also affect the precision with which longer-run control can be attained.

Over the years, the System has taken a number of measures to improve the effectiveness of its monetary control, including experimentation by the Federal Open Market Committee with various reserve targets as a means of influencing the monetary aggregates. Other relevant improvements, such as the need to extend reserve requirements to nonmember banks, have been proposed to the Congress.

The ensuing discussion of monetary control will focus, for convenience of exposition, mainly on the money supply as narrowly defined to include currency and demand deposits held by the public (M_1). Other broader measures of money supply include the consumer-type time and savings deposits held at banks (M_2) and at nonbank savings institutions (M_3). In formulating policy, the Federal Reserve necessarily takes account of the behavior of both narrow and broader measures of money supply as well as other financial indicators, including bank credit, interest rates, and the financial liquidity of institutions and the public. On occasion, the importance attached to factors other than M_1 has led to policies which have resulted in a markedly different behavior of M_1 than would have been the case if policy had been focussed on M_1 alone.

-3-

The relationship of Federal Reserve actions to the money supply

Actions taken by the Federal Reserve System affect the money supply indirectly. Through open market operations, the Federal Reserve can control with certainty only its holdings of U.S. Government securities. Purchases or sales of securities by the Federal Reserve add to or subtract from the level of bank reserves and hence the base supporting member bank deposits, which constitute the major portion of the money supply. However, it is important to note that factors other than System operations affect reserves, and also that the use of the reserves supplied is affected by behavior of banks and the public.

There are certain technical factors affecting reserves-- such as fluctuations in Treasury deposits at Federal Reserve Banks and variations in Federal Reserve credit advanced in the check collection process (so-called "float")--that are highly volatile and difficult to predict in the very short-run. In any one-week reserve period these factors may provide more or less reserves than anticipated and thereby serve to enlarge or contract bank deposits. These technical factors can contribute to short-run slippage between Federal Reserve actions and the money supply. They are of negligible importance over the longer-run, however, since their fluctuations tend to be random and often self-reversing. In any event, they can be offset by open market operations within a short time after they are perceived. This is also true of currency

-4-

in circulation, which is both a part of the money supply and a factor absorbing reserves, but for which data are very promptly available.

Thus, the Federal Reserve can directly control the reserve base with some precision over a reasonable period of time. In contrast, however, the System cannot exert direct control over the use of reserves by banks and the public. Banks may wish to hold excess reserves. While banks in the past two decades have normally maintained minimal excess reserves on average, the amounts are quite volatile in the short-run and often absorb more or less of the reserve supply than expected. These unused reserves would not, of course, support deposits.

The System also cannot directly control the public's preferences for various types of deposits. These preferences are influenced by the interest rate structure, by transaction needs, and by a wide variety of transitory and random factors. Depending on changes in public preferences, reserves supplied may be used to support more time deposits rather than demand deposits, or vice-versa. Thus, the extent to which M_1 or M_2 is affected by a reserve injection will depend fundamentally on public preferences for different types of deposits.

Changes in the deposit mix alter the multiplier relationship between reserves and deposits. If, for example, time deposits begin to expand rapidly, more reserves will have to be supplied if M_1 growth is not to be restrained as a result of the

-5-

diversion of reserves to support more time deposits. On the other hand, if M_2 were the principal objective of policy, less reserves would have to be supplied. This is because a dollar of time deposits requires less reserves than a dollar of demand deposits, so that a shift to time deposits would mean that a smaller amount of reserves would have to be supplied to support a given combined total of demand and time deposits. For the monetary authority to recognize and react to these changes in deposit mix requires close and continuing observation of the current flow of deposit data--as well as continued research into factors affecting the demand for M_1 and closely related assets. Through such efforts, the Federal Reserve is usually able to adjust its policies sufficiently to bring the money supply back to its desired course, but often the adjustment takes a span of months to complete.

Changes in the structure of reserve requirements could moderate the impact of shifting deposit preferences on the relationship between reserves and deposits. For example, equal reserve requirements on demand and time deposits would improve the precision with which M_2 could be controlled. On the other hand, zero reserve requirements on time deposits would improve the precision with which M_1 could be controlled, but would further loosen control over M_2 . Neither of these changes, it should be noted, are recommended here, because it is doubtful whether the structure of member bank reserve requirements by type of deposit should be greatly altered solely for the purpose of controlling a particular concept of money. The financial objectives of monetary policy are in practice broader than

-6-

any single measure of money. And the reserve requirement structure itself has a long history and serves certain purposes other than monetary control, including liquidity functions.

Scope of reserve requirements.

Whatever may be the most desirable structure of member bank reserve requirements, monetary control problems are made more difficult over both the short and long run because reserve requirements on certain money supply-type deposits held by nonmember banks and savings institutions are not subject to Federal Reserve requirements.

Nonmember commercial banks hold one-fifth of total demand deposits, and this percentage has been gradually increasing. State-determined reserve requirements on nonmember banks are variable from one jurisdiction to another, and can be held in the form of cash, deposits with other banks, and (in some cases) interest-bearing securities. Holdings in the last two of these forms do not contribute to the monetary policy function of reserves, since the funds so used finance additional credit and deposit expansion. Hence, the state system of reserve requirements complicates the task and reduces the precision of monetary control.

The potential development at thrift institutions of savings accounts with transfer features similar to checking accounts poses a new threat to controllability of the money supply, defined

-7-

on functional grounds to include such accounts along with demand deposits. As with nonmember commercial banks, nonbank savings institutions are not subject to Federal Reserve reserve requirements. To the extent they develop deposits of a money-supply type, the linkage between monetary reserves and deposits will be further loosened.

Because the existence of a long and growing body of institutions outside the scope of Federal Reserve reserve requirements is progressively weakening monetary control through the reserve mechanism, the Federal Reserve has recommended a uniform reserve structure applicable to all commercial banks (and also to thrift institutions to the extent that they develop accounts that are similar in function to checking accounts). Such a uniform structure would extend the scope of Federal Reserve reserve requirements to all deposits that are part of the money supply. It would enhance monetary control by increasing the predictability of response to a given injection of reserves. For the application of uniform reserve requirements to be fully effective in that respect, however, reserves of nonmember institutions would have to be removed from the stream of payments, by being kept on deposit at the Federal Reserve Banks or in the form of vault cash.

Short-run volatility of money demand.

While the indirect relationship between Federal Reserve actions and changes in the money supply makes it difficult to exert

-8-

close control over the supply of money, volatility in the public's demand for money creates another kind of complication. Experience indicates that there are sharp week-to-week and month-to-month variations in the public's desire to hold cash at any given level of interest rates. Even from one quarter to the next, wide variations in money demand have been experienced.

At times these variations have been influenced by international flows of funds, changes in the level of U. S. Government deposits, and sudden shifts in investor attitudes. At other times, however, the variations seem to be essentially random, as might be expected in such a large economy as ours, characterized by huge money flows and in which the usual pattern of money flows can be upset for reasons (strikes, unusual weather, illness) that are not fundamental to the long-run course of money demand and supply.

In view of this short-run volatility of money demand, it has seemed undesirable to attempt to control the supply of money rigidly. Rigid control of supply in the circumstances would lead to very sharp short-run swings in interest rates, as changes in the demand for money are forced back into conformance with the reserve-determined supply.

Such short-run interest rate gyrations could have quite unsettling effects on financial markets generally. Substantial uncertainties as to financing costs could, for example, make

-9-

dealers in securities more cautious in adding new securities to their inventories and in taking underwriting risks. This in turn would reduce the fluidity of markets and, over the longer run, tend to increase the costs of financing to ultimate borrowers. In addition, any financial uncertainties engendered by wide and uncertain interest rate movements could well have undesirable effects on business and consumer spending decisions.

While short-run interest rate variations would run a considerable risk of damage to financial markets, our research indicates that short-run fluctuations in the money supply have little or no significant impact on the economy. In fact, the economic effect of an overrun in M_1 over a six month period appears to be quite minor if it is followed by an offsetting undershoot over the next six months. Thus, monetary policy has generally gone some way toward accommodating the provision of reserves to short-run variations in the public's demand for cash, while aiming at maintaining longer-run growth of monetary aggregates on an appropriate path. In general, the impact of monetary policy on M_1 and on the economy needs to be evaluated by averaging out volatile short-run growth rates over longer periods of 6 months or so.

Adequacy and timeliness of statistics.

To keep monetary aggregates under reasonable control over the longer run, while avoiding disorderly market conditions, it is

-10-

desirable to begin adjusting reserve-supplying operations as soon as possible when the aggregates tend to move off course. Thus, a smooth adjustment of reserve policy requires prompt information on current money supply growth.

The Federal Reserve obtains a continuous flow of daily data from large member banks, and weekly data from other member banks. Efforts are under way, however, to improve the accuracy of the initial reports, and to broaden the coverage of banks which report daily, in order to obtain more accurate money supply data with even shorter lags than now.

While the Federal Reserve is in the process of improving further the current flow of data obtained from member banks, a large data gap for nonmember banks remains. Information on deposits at such banks is available only two to four days each year, from the call reports of condition carried out by the Federal bank supervisory agencies. The growing importance of nonmember banks makes it essential to obtain much more frequent data from them. Staffs of the Federal Reserve and the Federal Deposit Insurance Corporation have been exploring ways of accomplishing this objective.

Over the years, certain structural changes in banking have resulted in distortions of money supply statistics. The greatly increased tendency to borrow from abroad by U.S. banks was one such change in the late 1960's, and the reduction in the level of float from Federal Reserve regulatory action in the early 1970's was another. These changes have at times occasioned sizable annual

-11-

revisions in money supply statistics to maintain historical continuity. Policy-makers have been alerted to these problems well in advance, and while the necessary revisions have sometimes complicated the process of carrying out policy, they have not significantly distorted the formulation of policy.

Experiment with monetary control by means of a reserve target.

As part of its continuing efforts to improve the monetary control mechanism and obtain more effective control of the monetary aggregates, the Federal Reserve in early 1972 decided to place increased emphasis on a total reserves target as a guide to its day-to-day open market operations. The reserve target was soon modified to a concept of reserves available to support private nonbank deposits (RPD), so as to permit accommodation of reserves to the large day-to-day fluctuations in U. S. Government deposits that basically reflect Treasury cash management practices and do not have any lasting economic significance.

The RPD experiment has gone through several phases, and the Federal Reserve continues to work toward further improvement in procedures. Initially, a fairly wide target range was set for RPD. As more experience was gained in operations and in estimating the multiplier relationship between reserves and deposits, the target range was narrowed.

While setting target ranges for RPD at each meeting, the Federal Open Market Committee also establishes ranges of tolerance for the Federal funds rate, a key rate indexing money market

-12-

conditions. In doing so, however, the Committee has had to recognize and take account of the fact that increased emphasis on reserve targets normally can be expected to lead to wider fluctuations in the Federal funds rate than in the past.

Experience in 1972 indicated that even with the flexibility permitted by monthly Committee meetings, there was still a risk that reserve and monetary objectives could cumulatively move off target if the Federal funds rate range was made too narrow. Typically, that range has been widened in recent months. In addition the Committee has been willing to adjust the Federal funds rate range in the interval between meetings, if pursuit of reserve and monetary objectives appeared to require it and credit markets seemed able to adjust smoothly to the greater rate range.

It is doubtful that a completely foolproof means of controlling the money supply can in practice be developed. Improvements can and will be made both institutionally and in the statistical basis of operations. The Federal Reserve is continuously studying its own procedures with these objectives in mind. There will always remain, however, the larger question of what particular money growth rate should be targeted and how much weight should be given to such a target in comparison with other financial objectives in helping to achieve national economic goals. That judgmental issue is at the heart of monetary policy decision-making.