

# *Tactics and Targets of Monetary Policy*

JAMES S. DUESENBERY

Fashions in economic policy can change as rapidly as fashions in dress. Only five years ago, economists—with the enthusiastic assistance of the press—were hailing the successes of fiscal policy, while monetary policy took a back seat. Most accounts of the economic expansion from 1961 through 1965 gave monetary policy credit for accommodating—i.e., not getting in the way of the expansion generated by fiscal policy—but did not give monetary policy a very active role. Today, a large number of economists are prepared to agree that monetary policy plays the dominant role in determining the movements of aggregate demand.

It is true, no doubt, that many economists were overly optimistic about our ability to predict the effects of fiscal policy and even more optimistic about the predictability of the Congress. The political failures of fiscal policy in 1966-67 and the weak impact of the surtax in 1968-69 are sufficient to account for the current skepticism in regard to fiscal policy. [It is worth noting that all the statistical evidence underlying the income expenditure approach would lead us to expect the occurrence of substantial forecast errors from time to time.]

The swing toward monetary policy reflects the fact that swings in the growth in GNP have followed the swings in the growth of money supply to a marked degree. But we should be wary of supposing that we have found a new key to stabilization policy. The fact is that we still have a very inadequate knowledge of how monetary policy works. Indeed, we are still disputing about how to measure monetary policy.

## *Policy Measurement*

This morning I want to discuss two related topics. First, I shall attempt to discuss the question of policy measurement in language which will, I hope, be understandable both to those who emphasize the monetary aggregates and to those who analyze monetary policy in terms of credit conditions. Second, I shall make some observations

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on the conduct of monetary policy in a world of uncertainty and incomplete information on the quantitative effects of policy actions.

In the last few years, there has been a good deal of discussion of the measurement of monetary policy or as some put it, of the proper indicator of monetary policy. The problem arises because there is a difference between measuring what the Central Bank does—in terms of open market operations, discount rates, and Regulation Q—and measuring the consequences of its actions in terms of (a) monetary aggregates, currency, bank reserves, demand deposits, and time deposits, (b) credit conditions—bank liquidity, interest rates, and so on, or (c) GNP components.

Money market practitioners and many Federal Reserve officials are inclined to describe monetary policy in terms of what I have called credit conditions. They say that the Fed is pursuing a tight money policy when interest rates are rising and bank liquidity is declining. A good many economists find that terminology unsatisfactory because credit market conditions are determined by many factors of the system besides the actions of the Central Bank. As they often point out, the Fed can take actions which *ceteris paribus* would be expected to ease credit conditions while other factors actually cause tighter conditions. Indeed, that is not only possible; it is the most common pattern of events. The economists who have concerned themselves with this matter have sought a measure of monetary policy actions which would be essentially independent of the endogenous reactions which create the problem I have just mentioned.

### *Measuring the Impact of Changes in the Federal Budget*

It seems to me that the problem to which they address themselves has a close analogy to the problem of measuring the impact of changes in the federal budget. In fact, that analogy seems to me to be an obvious one, and I would be afraid of boring you were it not for the fact that that analogy has seldom been used.

In the case of fiscal policy, we all recognize that (quite aside from budget gimmicks) the observed surplus in the federal budget is not a very satisfactory measure of the impact of the budget on the economy. Actual revenues with a given tax structure are an endoge-

nous variable influenced by everything that affects GNP, including federal expenditures. When there is no change in either expenditures or tax rates, the budget surplus reflects changes in the strength of private demand acting as an automatic stabilizer. Moreover, a sharp rise in expenditures can set off a dynamic expansionary process which generates a large increase in revenue. *Ex post*, the surplus in the budget may change very little and will be a very poor measure of the expansionary impact of the rise in expenditures.

Very similar things can be said about monetary policy action or inaction. Suppose, for example, that the Fed keeps Regulation Q, discount rate, and reserve requirements constant and conducts only defensive open-market operations so that unborrowed reserves remain constant. Suppose that at the same time, other factors in the economy tend to produce a strong expansion of demand. Then interest rates will tend to rise, and so will monetary aggregates as currency responds to increased activity and banks borrow at the Fed in response to rising rates and increased loan demand. Time deposits will expand more rapidly if the Regulation Q ceilings were not initially effective; but their growth may slow down if ceilings were initially effective. Depending in part on the time deposit response, bank liquidity is likely to decline and loan rationing to intensify. Higher interest rates and tighter credit-rationing at banks and elsewhere will tend to check the expansionary tendencies in the economy. If the policy I have described can be regarded as a "no action" policy analogous to a fiscal policy of maintaining fixed expenditures and tax rates, then monetary policy has acted as an automatic stabilizer; and the whole sequence would operate in the reverse direction in the case of a contraction of demand.

For those who wish to describe monetary policy in terms of policy action, the case I have described would be a case of no action; but clearly those who describe policy in terms of credit conditions would consider the policy to be a restrictive one, just as those who describe fiscal policy in terms of *ex post* surplus would describe the rising surplus accompanying a private demand expansion (with fixed expenditures and taxes) as a restrictive fiscal policy.

Let me turn to a second aspect of the analogy. I noted earlier that the budget surplus is not only responsive to non-fiscal factors influencing GNP, but also that fiscal actions can feed back on themselves, so that an expenditure increase—which, *ceteris paribus*, reduces the surplus—can in fact generate a rise in revenue which largely affects the original rise in expenditures.

Something similar can happen in the case of monetary policy. A sharp rise in unborrowed reserves tends, through familiar processes, to reduce interest rates and expand total expenditures. The induced rise in expenditures will, at a later date, increase demand for money which, in turn, tends to raise interest rates. It is theoretically possible that the induced rise in interest rates will exceed the initial fall in rates so that an increase in money supply ultimately produces a net increase in interest rates. In practice, I know of no case when it can be said that an easy money policy, by itself, set off an expansion process which raised interest rates.

The more interesting practical case is one in which other forces interact with monetary policy to produce a strong expansion. Later on, the monetary authorities find it necessary to hold down the growth of bank reserves, and interest rates rise. There are plenty of cases of that sort.

In the case of fiscal policy, there is general agreement, among economists, at least, that the actual surplus or deficit tells nothing about the direction of fiscal action—i.e., whether fiscal action has been expansionary or restrictive—let alone about its appropriateness. One can measure fiscal action in terms of (a) the sum of expenditure increases and the revenue reductions produced by tax rate changes at a given income level or (b) in terms of changes in full employment surplus or deficit. With zero fiscal action in the first case, automatic stabilization (fiscal drag) sets in when income rises or falls absolutely. On the second basis, with zero action, automatic stabilization sets in when income deviates from the full employment path. Most economists prefer the second measure because it enables one to associate positive fiscal action with the correction of undesirable GNP movements and because it enables economists to explain budget policy in terms which sound a little like the traditional views of budget balancing.

#### *Credit Conditions as a Target Variable*

In the case of monetary policy, the movements of credit conditions, like the interest rate, are like observed surpluses and deficits—the product of an interaction between monetary actions and the other factors influencing demand. Clearly, credit conditions do not measure what the Central Bank has done. But, as I shall indicate below, they can be used as a target variable when the target is chosen in terms of a target GNP growth and forecasts of future GNP growth at different levels of current interest rates.

Central Bank action can be measured against a zero action base by summing up in some way the net effects of open market operations, reserve ratio changes, and so on, to produce a measure analogous to the first of the two fiscal measures mentioned above. And one could, of course, create another measure with a moving base line which takes account of the normal growth in the economy. If I read them correctly, Meltzer and Brunner have been trying to produce measurements along those lines.

There are some technical difficulties in making those measurements, but I think that Meltzer and Brunner are quite correct in saying that a measure of monetary policy actions must be based on the instruments of policy, not on the market phenomena which they influence but do not control. Perhaps I can sum it up this way. When the monetary base is expanding at a somewhat higher than average rate during a period of rapid expansion, interest rates are likely to rise and bank liquidity to decline. In those circumstances, it is commonly said that "the Fed is pursuing a tight money policy." Perhaps it would be more correct to say that "unusually expansive monetary policy interacting with strong demand is producing tighter credit conditions."

However, I don't suppose that the so-called monetarists are concerned with pedantic niceties of statement on the nature of Federal Reserve action. Few people concern themselves with measurement unless they think that the measurements in question will be used in some way. The choice of measurements is connected with substantive views about the conduct of policy. Those who tend to describe monetary policy in terms of credit conditions do so, not because they fail to understand what's going on, but because credit conditions fit into a logical approach to policy formation.

That approach might be called the "income expenditure and credit conditions" version of how to plan monetary policy. One starts at the turn of the year with the usual array of materials for a GNP forecast—budget estimates, plant and equipment surveys, and so on—and works through a four-quarter forecast on the assumption that interest rates and other credit conditions remain constant. By incorporating money demand functions one can project the monetary aggregate increase required for consistency with the constant credit conditions assumption. The forecasted rise in GNP is then compared with a target path, and one estimates what increase or decrease in GNP change from the original forecast is required. Because of lag considerations, most of the adjustment must take

place in the second half of the year in response to monetary changes in the first half year. As a second step, one experiments to find a path for credit conditions which will bring the GNP path in the second half year more nearly in line with a target path.

The most satisfactory path for changes in credit conditions in the first half year also implies a path for the movement of money supply. One could then envisage the Open Market Committee and the Board attempting to adjust open market operations and other policy instruments to keep credit conditions on the chosen path. This would also be the predicted path for money supply, provided the original projections were correct. However, the credit conditions logic suggests that, if the target and credit conditions path were achieved while monetary aggregates did not follow the projected path, the FOMC would tend to maintain the credit conditions path and let the aggregates deviate from the projection. Of course, both paths would be adjusted in the light of a new economic forecast.

I do not maintain that the scenario I have just outlined is a realistic description of policy, but it is the outline of policy implied by the logic of the credit conditions approach.

#### *Manipulating Rates on Time Deposits*

Let me develop that logic a little further. The major instrument of the policy I have suggested is, of course, open market operations with occasional adjustments in reserve requirements. But in order to manipulate the availability of bank credit, flows to thrift institutions, and market interest rates separately, ceiling rates on time and savings deposits can be manipulated. I regard the discount rate as mainly a signalling instrument, though it may have some effect on the willingness of banks to borrow. But I regard member bank borrowing as mainly a source of short-term reserve adjustments in periods when loan demand from priority customers exceeds the inflow of funds to a bank. And I envisage each bank as subject to a somewhat fuzzy limit on its borrowings. Seasonal and erratic situations aside, large banks are using up a special type of credit line when they go to the window; and they must either find additional funds or sell securities to get out.

Member bank borrowing is therefore a measure of the pressure on banks to liquidate securities. If their short-term securities portfolios are small and they have losses on long-term securities, sales are costly and lead to intensified loan rationing. Whenever borrowings are large,

those banks are under pressure to liquidate and intensify loan rationing. In the longer run, pressure for loan rationing can be measured by the size and character of the securities portfolio and the rate of decline in liquid security holdings. But over very short periods, changes in borrowing are a proxy for changes in the ability of banks to meet loan demand. That, to my mind, is the reason for watching members' bank borrowing or free reserves in day-to-day operations.

### *Interest Rates as a Target*

The target path for interest rates must, of course, reflect the policymakers' views about all the factors influencing investment decisions, including the effect of price expectations on investment decisions. It is fashionable nowadays to emphasize the distinction between real and nominal interest rates. I doubt whether the concept of real interest rates has any real usefulness in short-run policymaking. The difference between real and nominal interest depends in theory on the expected rate of price change. In a theoretical world in which all prices move together and price expectations respond only to past price movements, the real interest rate concept has a clear meaning. But when prices do not all move together and price expectations reflect interpretations of economic policy as well as price history, there is no well-defined empirical meaning to a real rate of interest. For short-run policymaking purposes, interest rates should reflect price expectations insofar as they are believed to affect investment. Moreover, investment surveys already reflect price expectations and interest rates at the time of the survey. The calculations suggested above require knowledge of the change in investment plans produced by a change in nominal interest rates with given price expectations (allowing for any expected changes in price expectations after the date of survey).

### *Difficulties of Measurement*

The approach I have just outlined makes sense as a logical construction, but it cannot be made operational in quantitative terms. Unfortunately, few people have any great faith in their knowledge of the short-run interest elasticity of investment demand. The impact of changes in bank liquidity or credit rationing at banks is even more difficult to calculate. Also, recent experience indicates that our knowledge of the effects of relative interest rates on flows

of funds to thrift institutions and the mortgage market leaves something to be desired.

The result is that income expenditure analysis may give guidance—within the limitations of ordinary GNP forecasting—as to the direction in which credit conditions should change, but it gives very poor guidance on the required amount of change. That leads to a tendency to formulate policy in such phrases as “leaning against the breeze.” An indication of acceleration in the movement of demand leads to policy actions which produce some rise in interest rates and loss of bank liquidity but which also permit an accelerated rise in money supply. If one adheres to that kind of policy long enough, interest rates and credit rationing will eventually offset the original stimulus unless it reverses itself. In a stable, dynamic system, a “lean-against-the-wind” policy will moderate fluctuations, provided one reverses policy when the growth of GNP decelerates. Nevertheless, one cannot be satisfied with a policy whose quantitative aspects are so vague.

That fact may not be as disastrous as it at first appears. It may often happen that some constraint on monetary policy imposes a drastic simplification on the practical problem. For example, during a strong expansion, it may appear that from a stabilization point-of-view, one would like to have a very rapid rise in interest rates and a sharp decline in bank liquidity to induce severe credit rationing. The ambiguities of “very rapid,” “sharp,” and “severe” are apparent. But it may also be the case that policymakers believe that short-term interest rates should not rise more than a certain amount because they do not wish to risk imposing too great a burden on the housing industry. That consideration may impose a sufficient limitation on their action so that they need only take the actions which just avoid violating the constraint. (Of course, there is in that argument an implicit judgment that the cost in stabilization policy terms is worth the gain in housing terms, but that judgment requires much less knowledge than the one required for the calculation discussed above.)

#### *Constraints on Monetary Policy*

At other times, balance-of-payments considerations have imposed effective constraints on monetary policy. At still others, policy makers limit their action because they are afraid of generating unstable speculative movements in the securities markets. On the



expansionary side, it has sometimes been argued that banks should not be allowed to become too liquid during a recession because it would then be too difficult to impose restraint on them at a later date.

Constraints of this sort are of real significance, and they may make it possible to make monetary policy decisions at times without the knowledge that would be required if only stabilization considerations were relevant. But the constraints are not always relevant and then it seems to me to be very difficult to make a rational quantitative formulation of monetary policy in credit conditions terms. When no constraints are relevant, we tend to fall back on a rather vague credit conditions gradualism, at least until the need for more vigorous restraint becomes apparent, and then shift to drastic restraint which leads to credit crunch problems. Moreover, I suspect that at times the constraint of concern for orderly security markets is invoked in order to solve the problem of ignorance as to the required amount of change in credit conditions.

The limitations on our ability to quantify the effects of any sequence of monetary policy actions have become apparent under the severe pressures which have been at work during the past four years. It seems to me, at any rate, that no one has any clear idea of the quantitative effect of the changes in credit terms which have taken place in the past few months.

One result of that state of affairs is a stronger demand for a statement of monetary policy which runs in more readily quantifiable terms. And that brings me back to measurement. A policy defined in terms of changes in money supply or reserve variables is, by definition, a policy stated in quantifiable terms. But, of course, it does not follow that, because the policy inputs are quantifiable, we can readily measure the effects of those inputs.

One can certainly define a policy in terms of one or more monetary aggregates. But if one believes, as most of us do, that (a) demand for money is responsive to the interest rate and (b) the interest rate required to produce any target GNP is constantly changing, it is not easy to see how to choose the change in monetary aggregates required for any given economic objective. Indeed, if we could, we would have no trouble in operating and measuring a policy stated in terms of credit conditions.

*Taking Advantage of the System's  
Automatic Stabilization Properties*

But it may be that certain types of policy can reduce errors by taking advantage of the automatic stabilization properties of the system. Without pausing to argue whether it is best to operate in terms of  $M_1$ ,  $M_2$ , or some reserve base magnitude, consider the use of a policy always stated in terms of changes in  $M_1$ . Suppose that policy-makers lack faith in forecasting and want to exploit the automatic stabilization properties of the system. They could choose a target change in GNP for, say, the next 12 months—choosing the target on the basis of unemployment and price stability considerations. Finally, they could choose a target for money supply growth by dividing the current—or recent past—value of velocity of  $M_1$  into the target GNP.

Provided the money demand functions were stable, they would then achieve an automatic stabilization effect about the target growth path. If demand factors on the basis of given credit conditions tended to produce a GNP in excess of the target, credit conditions would automatically tighten up. Of course, velocity would also rise. The actual growth in GNP would therefore be somewhere between the target and the GNP, which growth would have emerged with no change in credit conditions. Similar results with opposite signs would occur if demand were weak.

This kind of policy would have the advantage of producing an automatic stabilizing response to unanticipated changes in the rate of growth of demand, e.g., in periods like 1955. It would be another form of “leaning against the breeze” with a more or less built-in calibration system. Also, because it would sometimes, in effect, shorten decision lags, it would have certain advantages.

*Disadvantages*

This policy approach would also have four disadvantages. First, there do appear to be significant shifts in velocity produced by factors other than income, wealth, and interest rates. Those shifts would produce unintended shifts in credit conditions—sometimes, quite large ones. Those shifts would then produce destabilizing shifts in income.

Second, while I can see how one might formulate a policy in terms of one of the monetary aggregates by following some variant of the

approach which I have outlined (for which I hold no particular brief), I find it difficult to see how one could make use of more than one such aggregate or how one could deal with such matters as Regulation Q ceilings. It is not enough to say that  $M_1$  and  $M_2$  move together. They do so only in a very general way.

Third, as I have already noted, considerations, such as the balance of payments, mortgage markets, and security market speculations, make it necessary to give a certain amount of attention to credit market conditions in any case.

Finally, the policy I have outlined would not provide for any discretionary response to forecasted variation in the strength of demand. (It would permit variation in the target rate of growth of GNP to allow for already existing differences between actual and potential GNP.) It would, for example, call for about the same growth in GNP whether budgetary and investment forecasts indicated a boom or a recession. GNP forecasting is certainly subject to substantial errors, but it does produce useful information for policy-makers, which ought not to be thrown away.

One could go one step further and adjust a policy, stated in money terms, to take account of the anticipated strength of public and private demand. But to calculate the required adjustment, one would have to know everything required for the credit conditions policy outlined above.

In short, a simplistic money supply policy would provide an additional degree of automatic stabilization, but only at the expense of accepting destabilization from shifts in the money demand function, forgoing the active use of monetary policy to offset forecasted changes in fiscal policy and private investment, and forgoing any manipulation of rate ceilings to affect the distribution of the impact of credit restraint among different sectors of the economy. To achieve a money supply policy which meets those objectives requires either the introduction of considerations very similar to those used in the credit conditions approach or reliance on theories of income determination which are—to put it mildly—still very controversial.

Those objections are not necessarily fatal; they only indicate that the problem of making policy in quantitative terms is not a simple one.

But none of those negative remarks should be taken as a defense of the present vague state of the central banker's art. We have been

making and describing policy in ways which conceal rather than reveal the logical quantitative basis for policy decisions. Our lack of firmly established knowledge about the quantitative effects of policy actions justifies a certain amount of eclecticism, but that does not justify a failure to make a reasonably clear statement of the quantitative basis for our actions. We should try to estimate the effects of a proposed course of action in quantitative terms (i.e., numerical terms, not necessarily quantity of money terms). We should be eclectic in the sense that we make those estimates in a variety of different ways—looking at our estimation procedures as alternative ways of processing the information which describes past experience.

Earlier, I outlined what I called the “income expenditure—credit conditions” approach to monetary policy. If we systematically formulated policy in those terms, we would be forced to make a clear quantitative judgment of the results to be expected from alternative policies. We would also get a clear statement of the uncertainties and the risks which follow from the pursuit of one program compared with another.

Given the uncertainties surrounding our basic forecasts and our estimates of the effects of monetary actions, we cannot expect to control the economy with any precision. We can only try to pursue policy which gives a desirable balance between the risks of excessive growth of demand and the risks of deficient growth. There are many ways to pursue that objective. One is, as I have suggested, to base one’s policy on numerical estimates of the effects of policy, on explicit GNP forecasts, and on numerical estimates on the range of probable outcomes.

Finally, since money demand and supply functions would be an integral part of the process of calculating the expected impact of monetary policy actions, we would be able to provide a basis for deciding how to correct an initial program in the light of experience. We would obviously have to make adjustments in response to errors in the forecast of GNP and its components (not only in the light of quarterly GNP figures, but earlier, in response to some monthly indicators). But there is also a need to make adjustments when the credit conditions and money supply forecasts go awry. If, for example, the open market desk holds to credit conditions targets for a time and then finds that monetary aggregates exceed the projections, what should be done? Is the error due to error in the money demand functions or is there a stronger demand for credit, which

presages a stronger GNP than originally anticipated? Or was our original estimate of elasticity of investment demand to interest rate change in error? The conclusion we will reach will depend on judgments about the reliability of the elements going into the original calculations.

All that may sound very elaborate; but, in fact, one can take the approach I have suggested in some very simple ways. If one wishes, one can start by making relatively simple adjustments for the impact of credit policy to a standard GNP forecast.

Moreover, although money supply and demand functions and other implications would be built into the more elaborate prediction models, monetary aggregates can be introduced in very simple *ad hoc* ways. For example, the question "why should  $M_1$  increase by more or less than the target change in GNP, divided by current or recent past velocity?" seems like a good one to me. There may be, in particular cases, perfectly good answers running in terms of velocity trends, constraints, and what not. The important thing is that we should ask quantitative questions about policy actions and their effects and make explicit answers to them.

## DISCUSSION

ALLAN H. MELTZER

There is a large gap between monetary theory and the practice of monetary policy, as I've said a number of times. There is a larger gap between discussions of the theory of economic policy and the actual conduct of policy. When economists discuss economic policy, conclusions are very clear. Policy operations should set the market rate equal to the natural rate, provide something called the "optimum stock of money," or in the more esoteric models, move the economy to a so-called bliss point.

There may be some tenuous connection between these ideas and the activities that take place at the trading desk or at the meetings of the Open Market Committee; but, like Jim Duesenberry, I've read a lot of minutes and sat in when economists were invited to discuss policy, and I haven't seen any close connection between the activities that take place and the framework used to discuss economic policy.

One main reason for the gap is that in the theory of economic policy we always assume that we know not only what has happened, but what is going to happen as a result of any change we make. In the actual conduct of policy, we are usually a good deal more uncertain about the short-term impact of policy actions, even if we have confidence in our ability to predict the long-term effects.

To bridge the gap between theory and practice, Karl and I developed the analysis that Jim Duesenberry used today. Since Jim and I agree on main points, I want to discuss areas of agreement, rather than differences, and talk about implementation.

### *Need for a Quantitative Target*

Let me begin by agreeing that policy decisions should be made in a way that permits the Committee to give the manager a quantitative target. I know enough about the history of the Federal Reserve to know that this proposal has been discussed many times both within and outside the System. But nothing has been done, so I plan to make some suggestions about the ways in which the conduct of policy can be changed to permit the Committee to give clearer instructions.

One of the first problems that has to be solved is the problem of definition. We are all familiar with the complaint about different

definitions of money and monetary aggregates. As Henry Wallich said yesterday, there are at least 20 different definitions. No doubt Henry is guilty of understatement. There are probably more than 20. But many of the disputes about definitions are not matters of great moment. The most important difference is of recent origin and is a consequence of the substantial rates of growth and decline in commercial bank certificates of deposit resulting from the failure to change Regulation Q. Milton Friedman, the main proponent of a definition that includes time deposits, now agrees that the amount of CD's should not be included in the definition of money. With this change,  $M_1$  and  $M_2$  (minus CDs) move together.

I don't know of any period in which there would be a substantial difference in policy as a result of using one rather than the other definition of money as an indicator of monetary policy. There are differences between  $M_1$  and  $M_2$ . For example, the long-term rates of growth are very different. However, there is no sustained period in which people who looked at  $M_2$  minus CDs would have suggested that policy was expansive while people who looked at  $M_1$  thought policy was contractive. Disagreement about the extent to which policy was expansive or contractive might be larger at times, but again the difference would not be substantial.

Several years ago, while reviewing Cagan's work on money, I could not find any period up to 1955 in which an important error or judgment difference would have resulted from using  $M_1$  rather than  $M_2$  to judge the thrust of monetary policy. Although I prefer  $M_1$ , as you know, I fail to understand why economists harp on differences in definition that are of limited importance for policy.

#### *Need for a Narrow Range in the Growth Rate of Money*

Let me turn to a second area on which we may reach agreement, the choice between rules and authorities. This choice is more an apparent than a real choice. One reason is that we have to make decisions to implement a monetary rule. Another is the existence of fixed change rates. I believe that the main substantive issue in the rule vs. authority debate is the desirable amount of variability in the growth rate of the stock of money permitted during a given period. Recent experience has probably taught many people that there are limits to the acceptable or desirable amount of variability.

Senator Proxmire's proposal gives wide latitude to discretionary policy but restricts the growth rate of money, narrowly defined, to a

range of 2 to 6 percent. The Proxmire proposal avoids the pitfall of forcing sizable deflation on the economy in a peculiar attempt to compensate for inflation, although the lower end of Proxmire's range would permit slight deflation to restore equilibrium. My own preference is for a narrower range. One reason is that I believe it is undesirable to shift from the current positive expected rate of price change to a position in which the prevailing expectation is deflationary.

If we could get through the transition from expected inflation to expected deflation, it might be very desirable to have the return to cash balances from deflation that economic theorists have discussed. But our past experience gives overwhelming evidence that the transition to deflation is very difficult, and I do not want the Federal Reserve to retain the power to choose a policy that forces the price level to fall.

Again, we are faced with the gap between theory and practice. The choice of an optimal growth rate of money is of limited value if we cannot implement the choice. Until we learn a good deal more about designing policies that permit smooth transitions from where we are to where we want to be, the transition will remain an obstacle.

Another obstacle is the constraint imposed on the day-to-day conduct of policy as a result of historical developments and particularly the background and preferences of men chosen as members of Board or as managers of the open market account. One example is the concern for money market events as measured by free reserves and short-term interest rates. This concern restricts the choice of a target to measures that are available daily and that have a reasonably close connection to the actions that the manager takes in the money market. The reason is that the manager wants to observe what he has done and does not know how to operate without a target he can observe — however inaccurately — on a daily basis.

#### *Controlling the Monetary Base*

As Brunner and I have indicated elsewhere, the monetary base can be controlled effectively with the information now collected at the trading desk in New York. In fact, the manager can control the base more accurately than he can control movements of free reserves or the other money market indicators he now uses. By controlling the base, the manager controls the rate of monetary expansion suffi-



ciently well to maintain the rate within a narrow range. If we can get the Federal Reserve to give up a part of its concern for the money market, we can bridge part of the gap between theory and practice and can improve the conduct of monetary policy.

I propose, as a first step, that we reverse the present system, moving away from the use of free reserves, interest rates, or money market targets, all subject to a proviso clause, as in the announced policy of the Open Market Committee for the last several years. Instead, let the former proviso clause become the target. State the target as a growth rate of the quantity of money, or of the monetary base, or as an absolute change in the base (we can translate from one to the other). Set a range of fluctuations in interest rates as the new proviso clause. In this way, we move away from an approach based on money market or credit market conditions toward an approach based on control of money as a means of affecting economic activity and prices. By gradually widening the range of acceptable fluctuations in interest rates, we take additional steps away from the money market conception toward a system that is far more consistent with monetary theory. In this way, we start to bridge the gap between theory and policy operations.

An additional step, that Jim suggests several times in his paper, is to describe policy in quantitative terms. Anyone who has read the history of Federal Reserve policy knows that the manager is generally given vague, qualitative directions so that there is no clear way for the committee to decide whether he carried out the policy that the majority of the committee favored. One committee member may think he had; another may be sure he had not. Even those who agree on descriptive phraseology don't always have the same results in mind.

Until recently, there has been little concern about measuring what the manager has done or auditing his performance. Matters have improved slightly in recent years, and there is now a clearer idea about what the manager is directed to do. My suggestion that the Federal Reserve accept the monetary base as a target of policy and relegate fluctuations in interest rates to the proviso clause permits the Committee to describe desired policy in quantitative terms. Once that is done, the Committee can audit the manager's performance. Furthermore, the committee can move toward a more stabilizing policy by reducing the range of acceptable deviations between desired and actual policy.

By specifying a range within which interest rates are permitted to fluctuate, we pay attention to the historical concern of central bankers for day-to-day or week-to-week changes in interest rates. However, we do not allow concern for fluctuations in interest rates to interfere with the longer-range goals of monetary policy such as employment and price stability. In making this suggestion I want to distinguish two types of fluctuations in interest rates. One is the daily or weekly change that will be a subject of the proviso clause. The other is the change in interest rates that occurs during cycles. There is no reason, that I know, for expecting the use of money as a policy target to increase the size of cyclical fluctuations in interest rates.

### *Some Proposed Changes in Federal Reserve Arrangements*

Although there is considerable evidence that exchanging the positions of money and interest rates in the proviso clause and as target of monetary policy would increase the contribution of monetary policy to economic stability, there are a number of changes in arrangements that would further improve the operating characteristics of the revised system. Some of the changes I am about to propose can be made by the Federal Reserve without seeking new legislative authority. Others require an act of Congress and are therefore difficult to accomplish. Since I have neither the time nor the knowledge to provide a complete list of desired changes, I am content to mention a few that come to mind.

First, one restriction that has little present economic justification is the maintenance of different reserve requirements for banks of different classes. Differences in requirement ratios are based on historical, not current, conditions. By eliminating differences in requirements, the Federal Reserve moves toward a less complex set of institutional arrangements and thus improves its own ability to predict the effect of its actions.

A second proposed step is the elimination of changes in reserve requirement ratios. The most recent change in reserve requirements illustrates the defects of reserve requirement ratios as policy instruments. At a time when there were about \$130 million worth of excess reserves in the banking system, there is no rationale for a policy that requires banks to shift \$650 million from excess to required reserves. There was no way in which the banks could affect their excess reserve during the two weeks in which they were

expected to meet the requirement other than by borrowing from a Federal Reserve or inducing the public to give up currency. The banks were forced to borrow, and there is now about \$1 billion of additional borrowing. As in past periods, the borrowing remained in the System so that the banking system was able to expand the stocks of money and credit. The main effect of the reserve requirement change, as so often in the past, is on the profits of the banks. This is a rather indirect way to reduce bank expansion and hard to justify when there are more direct methods available.

A third step, a similar step, is suggested for very similar reasons. The System ought to remove reserve requirements for Treasury deposits so that the movement of Treasury balances between banks and the Federal Reserve would not cause swings in the money supply. There is nothing that the banks can do to attract Treasury deposits; removing the reserve requirement cannot lead banks to bid for Treasury deposits in any effective way. With taxes and expenditures given, or set by congressional policy, the Treasury alone decides where it wishes to keep its balances and when the balances are going to be withdrawn. Removing the reserve requirement ratio is a step in the direction of institutional simplification and has the desirable side effect of removing the need for defensive operations by the Federal Reserve.

A fourth step, one that is being discussed at the moment, is to put borrowing arrangements on a more rational basis. A very cumbersome proposal has been produced by the System. The proposal requires judgments about the purpose that brings the borrowing bank to the Federal Reserve bank, the size of the seasonal swing in deposits at the borrowing bank, etc. These are matters that are of no concern to the Federal Reserve when acting as a lender of last resort. A much simpler borrowing arrangement has been proposed many times in the past. The banks should be allowed to borrow at a penalty rate.

Fifth, and currently the most important change of all, is to remove the ceiling rate on time deposits. Regulation Q is a mischievous device that confuses the Open Market Committee. The confusion arises because of the neglect of differences between nominal and real interest rates. Regulation Q rates are nominal rates. Banks find numerous ways to circumvent the regulations. They offer additional services to depositors; they sell participations in loans; they change the required size of compensating balances. These and other

adjustments permit the banks to offset part of the effect of Regulation Q. More importantly, the change in market rates relative to Regulation Q ceiling rates causes a change in the stock of money, narrowly defined, relative to the stock of money defined to include time deposits, and changes the relationship between money and credit. Regulation Q is a main cause of diverging growth rates of monetary aggregates during cycles. The divergence in growth rates misleads the Federal Reserve and others, and contributes to the uncertainty about the direction of monetary policy.

### *A Second Group of Proposed Changes*

My second group of proposed changes includes those that are more difficult to obtain. Though no less important, I discuss these proposals more briefly. The first is important for the development of a rational world monetary system. We need a mechanism for adjusting to payment imbalances that reduces the domestic instability caused by the imbalances.

A second source of instability that should be removed is the practice of the home finance industry of holding short-term liabilities and long-term assets. One of the lessons of monetary history that has been repeated most frequently is that this practice leads to insolvency. Fear of forcing insolvency on an important segment of the financial industry inhibits the central bank from taking action.

My solution to the problem is relatively simple. Both the banking system and the home finance industry should be open to entry. Banks should be permitted to acquire savings and loan associations, and savings and loans should be permitted to acquire banks. Recent legislative proposals that threaten to stop this process are undesirable.

Finally, let me close with an economist's favorite recommendation. The payment of interest on demand deposits should be permitted. Permitting interest payments would reduce the size of shifts between time and demand accounts when rates change, and would improve economic welfare. Once again, we take a step toward reducing the gap between theory and practice.

Each of you may not accept my list of priorities or my solutions. I hope you will agree, however, that by removing some of the restrictions we have imposed on the operation of the monetary system, we can develop a system that adjusts more flexibly. Recent

changes have made institutional arrangement increasingly complex, have made monetary policies more difficult to design and interpret, and have increased the gap between theory and practice.