

MONETARY POLICY IN UNCHARTED WATERS

Remarks by

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Monetary Policy in Uncharted Waters

A good deal of attention has focused on monetary policy this past year. The state of the economy has pleased no one, with unemployment holding above eight percent and inflation only gradually receding from double-digit levels. In these circumstances, it's understandable that Congress and the general public should scrutinize the policies of the Federal Reserve in hopes of finding an easier, faster, or more assured path to recovery.

At the same time, one hopes that critics of the Fed recognize the policy dilemma posed by "stagflation" -- that unhappy state in which we find ourselves trapped by stagnation plus inflation. Keynesian expansionist policies (whether budgetary or monetary) designed to stimulate aggregate demand may put people back to work in the short run, but only at the risk of worsening cost-push inflation.

Partly because of this dilemma in determining an appropriate policy for aggregate demand (i.e., how much stimulus to give the economy as a whole), one would also hope that those sincerely interested in achieving better economic conditions would be as zealous in attacking the structural problems that have made our economy inflation-prone as they are in calling for "more money." Unfortunately, it's much easier politically to castigate the central bank than to ferret out (and do something about) anti-competitive practices in labor, business, and government.

Nevertheless, out of the frustrations of stagflation has come a process of dialog between the Congress and the Federal Reserve that can be very helpful in fostering a wider understanding of the monetary process.

This year, for the first time, the Fed is laying before the public, through quarterly testimony at banking committee hearings, its intended path

for money supply growth over the succeeding year. This procedure, developed in response to Congressional request (House concurrent resolution #133), provides a framework for discussing the considerations that underlie monetary policy decisions. In the past, despite efforts by the Fed to explain what it was about, there persisted a feeling that decisions were being taken in secret, perhaps without adequate regard for the policy preferences of elected officials.

As background for interpreting these quarterly statements of money growth ranges, it may be useful to describe something of the policy process, the debates that are going on within the Fed about that process, and the continuing uncertainties that surround monetary policy formulation. Others have provided considerable detail about the actual step-by-step procedure followed by the Federal Open Market Committee -- the top policy-making body within the Federal Reserve -- in arriving at a judgment on policy stance !give citation!. What follows, in contrast, is an idealized conceptualization of that process, designed not so much to describe the Committee's actual procedures, as to highlight some of the difficulties and uncertainties with which the Committee has to contend in arriving at a policy judgment.

The basic concern of the Federal Reserve in deciding on a appropriate stance for monetary policy is to do what it can to assure financial conditions conducive to high employment and low inflation in the months and years ahead. At this level of generalization, it's clear that the ultimate concern of policy is with people and their sustained employment. In different terms, the concern is with the outlook for the economy in the future.

Among the important tools used by those who try to peer into the economic future, whether within the Fed or elsewhere, are econometric models

that try to capture in systems of equations the interrelationships of economic magnitudes in the real world. Such models come in all shapes and sizes, and when fed updated information and assumptions, will regurgitate sets of numbers that purport to describe such factors as income growth, inflation rates, unemployment rates, and so on, over the quarters ahead.*

If these models reflect economic relationships with fair accuracy -- a point to be discussed in a moment -- then one can feed them alternative policy assumptions (e.g., different rates of money growth, budget deficits, etc.) and compare alternative outcomes for real world magnitudes in the future. Theoretically, at least, the next step would be for the policy-makers to choose their preferred outcome in terms, for example, of sets of tradeoff between unemployment and inflation among feasible alternatives, set the policy dial at the appropriate mark, go home and relax until it was time to repeat the process the following month (when new information would be available).

In this highly stylized description of the policy-making process, there are several points to keep in mind:

- 1) it assumes that alternative forecasts from econometric models are more or less reliable indicators of real world values;
- 2) it assumes that there is an exploitable tradeoff between unemployment and inflation over future quarters;

*For a non-technical discussion of the uses and abuses of econometric models in economic forecasting, see _____.

- 3) it assumes that there is a stable relationship between the policy variable (nonborrowed reserves, money supply, interest rates) and ultimate targets such as income, employment and inflation.

Unfortunately each of these assumptions is becoming subject to increasing skepticism.

Reliability of Model Forecasts

The stability and reliability of econometric models is being questioned on several grounds, some having to do with the state of the economy at the moment, others raising more fundamental issues about the models themselves. As to the first category, it is generally recognized that the reliability of model forecasts is likely to be greatest when real world economic conditions approximate those of the period from which the equations of the model were estimated. Yet today we find ourselves in a world of unprecedentedly high unemployment and close to double-digit inflation, conditions that did not prevail during the post-war years from which today's models were derived. In effect, we are asking the models to give us answers "outside the range of their experience."

At the same time, the nature of the questions to which we need answers has changed -- at least in the recent past. It's not as though we simply want to know how much more output/employment/inflation we can expect from, say, a one percent faster rate of growth in money. Rather, we need to know what the consequences are for the economy of shocks to the system from currency devaluations/revaluations, synchronized world booms or recessions, or most obviously, four-fold increases in world

petroleum prices. These vital issues are ones with which the standard models are simply ill-equipped to deal.

But apart from the limited predictive reliability of present macro-economic models in interpreting extreme values and structural shocks, the usefulness even within their supposed range of competence is being questioned on empirical and theoretical grounds. Anyone who has worked closely with such models, as we do in the Federal Reserve, knows that prediction errors are frequent and often sizeable. For this reason, the "pure" model results are often doctored by applying judgmental adjustments to make the outcome "more reasonable." Once judgment is used to alter predicted values, however, it becomes impossible subsequently to retrace history and measure the accuracy of actual versus predicted outcomes! Thus, models continue to be used, but in many cases they escape the tests that ought to be applied to their results.

A different sort of criticism is being leveled at macro-economic models on theoretical grounds. The argument contends that the models are built on systems of equations that individually may have statistical reliability, but which are not stable in a general equilibrium sense. It is alleged, for example, that equations explaining consumption are based on one story about how the economy works, those explaining investment on another story, those explaining money demand on a third, and so on. Since there is no underlying theory applying to all the economic actors in the game, one should not be surprised, the argument goes, if the structural relationships of the model shift when faced with questions about values outside the time period when the model was estimated. Yet if we are to

test alternative outcomes to alternative policy prescriptions, we have to assume that the structure of the model doesn't change each time we vary the policy assumption (e.g., different paths of money growth)!

Finally, on the issue of uneasiness about model reliability, an irony should be pointed out that grows out of the way in which policy implications are drawn from the model's output. Most models indicate that output and employment respond relatively rapidly to budgetary or monetary stimulus if the economy is operating below capacity, whereas the impact of that stimulus on prices and wages is delayed. Thus, in a slack economy, there is always an incentive to administer that extra stimulus, because one pays an apparently small price in added inflation for the increase in output/employment generated over the time horizon of the forecast. But that's the rub! Because people know something of the uncertainties inherent in model results, and because they not unreasonably assume that the further into the future those results are projected, the less the reliability of the numbers, there is a tendency to throw out or disregard values beyond four to six quarters into the future. Yet it's only in these more distant quarters that the piper gets paid, i.e., that the price/wage effect of the policy stimulus shows up.

The Tradeoff Between Employment and Inflation

Most discussions of policy alternatives -- including that above -- assume that there is an exploitable tradeoff between employment and inflation, i.e., that policy-makers can choose faster growth in employment (lower unemployment) at the cost of somewhat faster inflation, and vice versa. Yet this statistical relationship, portrayed in the so-called Phillips Curve of the

late 1950's, has come under increasing attack in the years since. As a result, there is a growing suspicion that policy alternatives -- at least within reasonable ranges -- determine rates of inflation, but not real output or employment, except perhaps in the short run.

There are a couple of different kinds of explanations as to why the tradeoff has disappeared or attenuated (assuming it once existed). The first points to the change in the composition of the work force, with the higher proportions of women and teenagers, and argues that their greater frequency/duration of unemployment (compared, say, with male heads of households) "explains" why the tradeoff appears to have worsened, i.e., that a given rate of inflation is associated with higher levels of unemployment than was the case twenty years ago. According to this explanation, there is still a tradeoff, but the choices are worse than before.

A second kind of explanation argues, in effect, that the public has wised up. It points out that for discretionary policy to influence the tradeoff, there always had to be people whose expectations about the future (e.g., about inflation rates, jobs, etc.) turned out, after the fact, to be wrong because of the policy choice. But repeated experience over the post-war period has taught more and more people (rightly or wrongly) to associate stimulative policies with higher rates of inflation sooner or later.* Moreover, double-digit inflation probably represented a threshold that greatly hastened and expanded the education process. As a result, employers and employees are probably reacting (in wage demands and price markups) more rapidly to signs of policy stimulation even when the economy

*In contrast, "restrictive" policies seldom if ever bring prices down, though they may slow their rate of growth.

is slack. If, in other words, stimulative policies affect mainly prices and wages rather than output/employment in the long run, and that long run is becoming increasingly telescoped into the short run, then the scope for increasing output even in the short run through such policies is eroding. In effect, the exploitable tradeoff between employment and inflation is disappearing because stimulative policies lead increasingly rapidly to price/wage adjustments.

Stability of Policy Variable and Real Economy

Even if we had reliable economic forecasts and exploitable tradeoffs between employment and inflation, we would still need a policy variable -- reserves, money, interest rates -- that bore some stable relationship with the ultimate policy objectives -- employment, income, inflation -- at future dates in order to carry out discretionary policy with confidence. But there are some new difficulties here as well.

For a variety of reasons, the Federal Reserve has focused increasingly on the so-called monetary aggregates -- different distributions of reserves and money -- as its index of policy. One of those reasons was the statistical stability between, say, M_1 or M_2 and real economic variables a year hence.

There was always a looseness in the fit over short periods, and indeed an inability to control the M's in the shortest run. But these difficulties were thought to be of limited importance if the controllability and stability were present over, say, six-month to twelve-month periods, as they generally seemed to be.

At the moment, however, there is a new complication. M_1 the narrowly defined money supply consisting of currency in circulation, plus demand deposits at commercial banks, is being supplemented as the ultimate means of payment by other types of accounts. Thrift institutions are increasingly providing payments instruments that serve the public in the same fashion as bank demand deposits. Point of sale terminals are being installed in retail outlets that permit purchases by debit to savings accounts and so on.

Rising interest rates and technological change have been encouraging and facilitating the economizing of money balances throughout much of the post-war period. This secular trend toward reduced ratios of "money" to transactions (i.e., increasing income velocity of money) has been gradual enough not to disturb the basic stability of the relationship. Now, however, there is a question as to whether lower than predicted rates of growth in the M's may not reflect a structural shift toward use of other types of balances for payments. To the extent this is the case, efforts to insure desired rates of growth in "money" as traditionally defined will provide more stimulus to the economy than intended.

One should note in this regard that this problem does not disappear simply by selecting a different M. While there are any number of definitions of money that can be constructed, the issue is the stability of whatever definition in relation to subsequent values of GNP. The difficulty lies in the changing institutional arrangements that determine at any given moment what people use as money, by any definition. The new uncertainty, in other words, derives from the faster pace of institutional

change, and hence the questionable reliability of the linkage between "money" (or some other policy handle) and real economic magnitudes.

Implications of Uncertainty for the Monetary Policy Process

In light of these increased uncertainties about 1) the reliability of econometric model forecasts; 2) the existence of an exploitable tradeoff between employment and inflation; and 3) the stability of the relationship between money and real output, what should monetary policy makers do? For years, Milton Friedman has been advising us to set the dials on a steady course, pack up our bags, and go home. Now, along come new proponents of the "natural rate of unemployment" (i.e., the belief that employment depends on labor force characteristics, the rate of technological change, capital output ratios, and wage flexibility, but not discretionary monetary policy), "rational expectations" (i.e., you can't fool people any longer), and "optimal control theory" who sing the same words with new music. In effect, the message is: the greater the uncertainty about economic relationships, the greater the likelihood that a simple (non-feedback) rule prescribing steady growth in the monetary aggregates will turn out to be optimal.

And in fact, the Federal Reserve has moved some distance in this direction with the adoption and public announcement of long-run (four quarter) target ranges for the monetary aggregates, beginning last March. At the same time, we are still some distance from a slavish pursuit of a particular number that supposedly represents "ideal growth." I think it's important to try to understand what has changed, and what hasn't, in this latest refinement of monetary formulation and discussion.

Perhaps the most obvious thing that has changed is the nature of the public discussion about the Fed's current policy stance. There is now a particular set of numbers that publicly characterize the Fed's intentions with respect to that policy. The 5 to 7-1/2 percent range for growth in M_1 (and related ranges for other definitions of money) that was announced last March, and reaffirmed for successive year-ahead periods since, sets the framework for the debate between the Fed and Congress, by the interested public, and indeed within the Fed itself as to the appropriateness of this policy.

There are several advantages, in my view, to this publicly announced aggregates target. Foremost among these is the fact that debate is focused on money growth, not on interest rates. While either of these "handles" could theoretically be used to guide or indicate policy, there's little doubt that the debate can be more rational and less emotionally or politically charged if it takes place in terms of money growth rather than interest rates. People, and hence politicians, are simply more passionate about interest rates, notably high or rising interest rates, than about a particular money growth path!

For much the same reason, if people can be convinced of the reasonableness of a particular money path, given the anticipated economic outlook, then there should be less political resistance to adhering to that path (assuming the outlook doesn't change) even if such adherence implies, say, rising interest rates in an expanding economy. And although this thought is put in terms of political resistance, the term "political" should be understood in a broad context, specifically including the policy bodies of the Federal Reserve itself. For there's no denying that discussions within the Fed are influenced by concerns about public reaction to

rising interest rates -- witness particularly the fear that Congress might impose controls on interest rates along with the renewal of authority for price and wage controls in the spring of 1973.

Another possible advantage of a publicly announced target, which, however, has yet to be demonstrated, is that the public -- both employers and employees -- might come to believe that price increases and wage demands greater than the announced target will be self-defeating, in the sense that they won't be validated by money growth, and will therefore only lead to lost sales and unemployment. While a tight relationship of this sort would obviously be a considerable over-simplification -- given growth in productivity, variations among industries, etc. -- it might nevertheless represent a useful way of gaining acceptance by the public of limits to price and wage demands. In an admittedly different institutional setting -- in Germany and Switzerland -- publicly announced targets for money growth seem to have been intended in part to serve this purpose.

It's also important, I believe, to understand what the newly announced targets are not. And the first thing they are not, in a conventional sense at least, is "targets"! Earlier, it was pointed out that any set of money growth targets was predicated on a view of the economic outlook at a given point in time. It follows that if the Fed's view of that outlook changes -- as it well might, given the uncertainty of forecasts -- then it would be folly to stick with unchanged money growth targets simply for the sake of apparent consistency. And indeed, the House Concurrent Resolution requesting the Fed to set forth such targets specifically contemplated that the Fed would alter its desired growth path if economic conditions changed.

It would perhaps be more accurate to describe the stated growth path as an intention rather than a target. The word "target" implies something not only to be aimed for, but hit, with the implication that bystanders, after the fact, will be able to assess whether a bullseye was achieved, or the target missed entirely. In practice, the new regime implies at best a moving target, restated each quarter for four quarters ahead, with the option of choosing a new path each time, or indeed in between public restatements. In these circumstances, it will be difficult if not impossible to give the Fed a score on its accuracy -- unless, of course, we are so far off as to leave no doubt. In any case, one should not be taken in by an impression of great precision in the new process. For one thing, the numbers representing the money supply are unfortunately subject to fairly substantial revisions at times, so that a growth rate extrapolated from a given base period can result in quite a different money stock number at the end of four quarters if the base is revised in the meantime. Moreover, by stating the target as a range -- as seems reasonable given the imprecision of the money supply numbers, and the less than perfect fit between money supply growth and real economic variables -- there is room for the Fed to alter intended growth paths within the range as a response to changed conditions without a change in the announced range.

All of which implies that although the uncertainties discussed earlier seem to push the Fed toward greater reliance on money supply as its index of policy -- and the Fed has indeed moved further in that direction -- there is still an understandable, and I believe justifiable, skepticism that we have yet found the handle that will produce desired results in the real economy if only it were set at the proper number. Indeed, even if one had

full faith in the optimality of a fixed money growth rate, judgments would still need to be made concerning the abruptness with which one sought to get back on path once a deviation had occurred (as they inevitably do in the short run). And this judgment in turn would have to be made in part on an assessment of the resilience of financial markets in the face of interest rate change. That resilience would depend on the direction of change and the general condition of financial institutions. And so on.

Thus, while there are increased uncertainties and doubts about the validity of the money policy process, as it has been implemented by the Fed in the past (quite apart from alleged mistakes in judgment), there is by no means certainty that we have yet found the best way of carrying out our responsibilities, despite the recent changes. Nevertheless, for both theoretical and practical reasons, I believe a publicly announced "target" for money supply growth represents an advance whose value we shall have to continue to reassess, as we gain experience -- economic and political -- with it.