Establishing Credibility: A Rational Expectations Viewpoint

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Ongoing attempts to reduce the rate of inflation through restrictive monetary policy in the United States and a number of other countries have brought practical focus to the problem of establishing the *credibility* of macroeconomic policy. While credibility is usually an unquestioned criterion of good public policy, in the case of disinflation it takes on special importance. Credibility about a *future* change in the course of policy may be able to directly reduce the costs of disinflation by changing inflationary expectations. Since inflationary expectations have a significant influence on current wage and price decisions, a reduction in actual inflation may result. To the extent that it is quantitatively significant, this expectations effect of credibility—the expectations bonus —puts a premium on establishing the credibility of a monetary disinflation program.

The purpose of this paper is to consider the problem of establishing the credibility of such a program from the perspective of a *rational expectations* approach to macroeconomic policy evaluation. That credibility would have significant disinflation effects *once established*, is closely associated with the rational expectations hypothesis, and has been demonstrated both in the context of "market-clearing" and "contract-based" rational expectations models. (A summary of the results from the different models is contained in my 1980 review paper.) From macroeconomic research completed during the last ten years, it now seems clear that a rational expectations approach to policy evaluation should *not* be confined to market-clearing situations where all prices and wages adjust instantaneously, nullifying the real effects of anticipated policy and leaving only unanticipated policy to matter. In fact, much rational expectations research in macroeconomics has given explicit attention to contracts and other rigidities which lead to infrequent adjustment of most wages and prices. In this paper, however, I will only touch on this technical research, and instead attempt to apply some of the more general principles of rational expectations to the problem of establishing credibility of macroeconomic policy at this time in the United States.

*Princeton University. A grant from the National Science Foundation is gratefully acknowledged.

I. Announcements, Rules, and Fundamentals

As I interpret recent research on expectations, three general principles should be emphasized in a study of the macroeconomic credibility problem. First, an analysis of credibility should be based on a premise that the simple *announcement* by policymakers of an intention to change policy will not establish credibility. Rational individuals need more to go on than mere announcements. As argued below, they would pay more attention to whether the policy change is likely to improve economic performance, and, because of time-inconsistency problems, to whether policymakers are willing to face the inevitable start-up costs of implementing a new policy.

Second, questions about credibility should be phrased in terms of changes in *policy rules*, or *institutional setups*. Much of the recent work on macroeconomic policy with rational expectations has concentrated on evaluating the performance of the economy under different institutional arrangements or policy rules. This approach is to be distinguished from the more traditional macroeconomic approach where alternative *paths* of the policy instruments are compared. There are a number of reasons for this focus on rules, ranging from simple computational issues to judgements about the practical application of the rational expectations hypothesis. Active rules which react to the state of the economy as well as passive (k percent type) rules can, and have been, evaluated

using this approach. In fact, the emphasis on comparing different institutional rules might be considered an essential feature of the rational expectations approach to macroeconomics. It seems particularly appropriate in the current context because questions about accommodation or validation of inflation, which are central points in current discussions, implicitly involve policy rules which describe how policymakers react to inflation.

A third principle, which in many popular discussions needs extra emphasis, is that an analysis of credibility should be based on *fundamentals*. It should not rely on "castles in the air" based only on wishful thinking, or on "self-fulfilling prophesies" which rest only on the notion that if enough people believe something it will come true. A focus on fundamentals—technological, accounting, and explicit demand and supply relationships—characterizes the vast majority of rational expectations research. This is not to say that bouts of self-fulfilling expectations never occur, but only that they are relatively minor, and that, in any case, we know too little about them for public policy to exploit.

II. Current Changes in Policy

For practical application of these general principles, we need to begin by getting specific about the contemplated changes in policy. What is the rule change about which credibility is an issue in the current economic environment in the United States? That this question is not an easy one to answer, despite the recent emphasis on rules in macroeconomics research, would itself seem like an obstacle to credibility. The old rule—that used on average for the last fifteen years or so—is not as difficult to characterize as the intended new rule. In terms of monetary policy, several econometric studies have uncovered countercyclical elements in Federal Reserve behavior during the 1960's and 1970's. When the unemployment rate rose in slow growth periods or recessions, the Fed reacted by increasing the rate of growth of money. But, there has also been a strong inflation accommodation or validation effect in Fed decision making. Except for some short-run episodes, the Fed appears to have accommodated or validated inflation by increasing money supply growth in response to increases in inflation. This accommodative policy is one way to explain the upward trend in velocity-adjusted money growth which we have experienced until recently. It seems fair, therefore, to summarize Fed decisions as operating under a policy rule which has been both accommodative in responding to inflation, and countercyclical in responding to unemployment. If we think of this as the old rule, then what is the new rule and the implied policy change?

Stated intentions to reduce the rate of growth of a suitably measured money supply by a certain percent each year, without stipulated contingencies, may sound like a transition to a new rule which is monetarist: one might presume that when the growth rate is reduced to k percent, it will then be held there. However, despite the use of the money supply to state monetary policy intentions, there is little basis for believing that a k percent rule, as distinct from an alternative procedure, is where policy is heading at this time. Relative to the previous policy rule, however, it seems clear that the contemplated policy change involves some reduction in accommodation—cutting money growth when the inflation rate is high is clearly a move away from accommodation—but there is as yet no indication (aside from political rhetoric) that the countercyclical component of monetary policy is likely to be abandoned. In what follows, therefore, I will examine the credibility issue in terms of a general change in policy away from accommodation, leaving open the possibility of a change in the countercyclical component.

III. Is The New Policy Better?

In trying to assess whether a new policy such as this one is credible, rational individuals who look beyond announcements would first consider whether the new policy is a significant improvement over the old policy, and whether policymakers and the majority of those that influence policymakers think that it is. This straightforward consideration seems prior to any discussion of credibility in a democratic society. It is not enough that

the political party currently in charge of policy supports the move to the new procedures, or that the new procedures simply benefit one group at the expense of another. Clearly another political party, representing different views, could reverse the policy if brought into power at the next election. It seems, therefore, that a necessary condition for high credibility of a new macroeconomic policy is that it be clearly superior to the old policy.

Is a new policy of less accommodation superior to the recent policy rule in the United States as described above? If we rely on available macroeconomic research on policy rules, the answer appears to be yes. It is now well-known that market-clearing rational expectations models predict that a nonaccommodative monetary rule which does not react to the state of the economy would result in the same output and employment behavior as a responsive rule, and with more stable inflation. However, these models have been criticized for their special and unrealistic assumptions that prices and wages are perfectly flexible and that all output deviations originate in people's misperceptions about the money supply. Rational expectations models which attempt to deal with wage contracting and sticky prices give significantly different answers to policy evaluation questions. For example, they predict that a countercyclical monetary policy which reacts to the state of the business cycle, say, by increasing money growth when unemployment rises, is effective in smoothing out cyclical swings. With respect to certain questions about accommodation, however, the contract-based models give answers which have implications that are similar to the market-clearing models. In particular, a policy which is less accommodative to inflation than recent economic policy in the United States would increase price stability, but it would not change the *average* level of output or employment. It would lead to increased fluctuations in output and employment, but *relative to recent levels of accommodation* this increase would be fairly small. (My 1981 paper contains some econometric estimates.) When making these accommodation comparisons, it is important to hold constant the degree of countercyclical monetary response to the level of unemployment. It should be emphasized that these results say nothing about the costs of changing from one policy to another which depend on how credible the change is. The comparison is between policy rules which have been in operation for a long enough time that people are already familiar with how they work. It should also be emphasized that if monetary policy is perversely procyclical, or not countercyclical enough, regardless of how accommodative to inflation it is, the result would be inferior.

The implications of these performance evaluations for credibility seem clear. The move toward a less-accommodative monetary policy should improve performance and would therefore seem like a potentially credible approach for policymakers to take. But if the new rule does not entail some countercyclical effects, its likely inferior performance would lead to doubts about its sustainability. Accordingly, if a reasonable expectation of improved performance is a necessary prerequisite for establishing credibility of a new policy rule, then credibility could be improved if policymakers began to clarify that their moves toward less monetary accommodation do not imply an abandonment of at least mild countercyclical aims. Moreover, it would help if these countercyclical effects were carefully demonstrated when necessary, along with the resolve not to accommodate inflation.

IV. Time Inconsistency and Credibility

Although reasonably clear evidence that a new policy rule will work better is a necessary condition for its credibility, this is not a sufficient condition. The problem of time inconsistency raises additional obstacles to credibility. Finn Kydland and Edward Prescott have given examples of how the time inconsistency problem arises in a macroeconomic tradeoff between inflation and unemployment, and Robert Barro and David Gordon have studied in detail its implications for monetary policy in a market-clearing model. A similar issue arises in the case of the accommodation of monetary policy to

inflation in contract-based models, and raises some problems about establishing credibility of a move to a less accommodative policy. This problem has been discussed in an empirical context in a contract-based model in my 1979 paper. William Fellner and Herbert Stein have raised closely related problems about establishing the credibility of a nonaccommodative policy.

Suppose that everyone became convinced that policy was too accommodative, that inflation was on an upward path, and that a move to a less-accommodative policy was in order. An optimal way to do this might be to accept the current high rate of inflation and promise that any increases in inflation in the future would not be accommodated. This would not entail any current loss in output and the promise not to accommodate any inflation in the future would moderate current wage and price adjustments. However, if it is optimal for the new policy to accommodate today's inflation rate, then it will also be optimal to accommodate tomorrow's inflation rate, even if it is higher than today's. If people are rational, they will expect that policymakers would behave this way and would guess that policy will be more accommodative than promised. Hence, the promised move to a less-accommodative policy is not credible, even though everyone believes that it would be superior (in the sense I have used earlier) relative to the more-accommodative policy.

This inconsistency problem can be approached in several ways. One is to *start* with a less-accommodative policy today, not merely with a promise for the future, and thereby attempt to establish (by action rather than word) the credibility that accommodation will not be provided in the future. The costs associated with the suboptimality of this procedure can be viewed as the price of establishing credibility. Evidently, credibility has costs as well as benefits.

This solution to the inconsistency problem seems preferable to the alternative "consistent" solution in which policymakers always choose the currently optimal policy, irrespective of credibility problems, and individuals correctly expect policymakers to do so. The outcome of such a consistent policy would involve excessive accommodation. However, it seems unlikely to me that a consistent solution would emerge in a situation where it was widely known that the less-accommodative policy was superior. In other easily recognized time-inconsistency situations (such as the use of patents to stimulate inventive activity despite their costs in terms of monopolist inefficiencies), society has developed ways to institute the optimal rule. A more likely reason that actual policies have been too accommodative is that at least until recently, the superiority of the less-accommodative policy has not generally been realized or believed.

V. Concluding Remarks

In order to discuss credibility issues in terms of a change in policy rules in the current economic environment, we have had to resort to guesswork about the most likely form of the new rule toward which policymakers are currently heading. Although recent Fed decisions seem to have been effective in demonstrating an intention to be less accommodative to inflation, credibility about the shift in policy could be enhanced if there were more information about other elements of the new policy. Even though the growth rate of the monetary aggregates is not yet at noninflationary levels, it is not too soon to begin serious discussion about the type of aggregate demand policy toward which we are aiming.

The research reported in this paper suggests that a reasonable policy rule would be one which avoids accommodation but does not rule out countercyclical stabilization altogether. There are a number of ways that such a policy rule might be implemented. In terms of monetary policy, such a rule might call for a target rate growth for a suitably defined monetary aggregate with positive deviations from this target permitted when the unemployment rate rose above normal levels and a negative deviation when the unemployment rate fell below normal. There are other possibilities, including appropriate adjustments for velocity shifts, and measures other than the unemployment rate for the state of economic activity. But the important

point is that this type of rule is not accommodative (it would not lead to a long-run inflationary money growth), even though it has a countercyclical mechanism.

I think there is an advantage to using a monetary aggregate as an intermediate instrument as distinct from interest rates, in that it is easier to distinguish between accommodation and countercyclical stabilization. Nominal interest rate targetting could easily result in accommodation of inflation, if nominal interest rates were not permitted in rise with the inflation rate. And real interest rate targetting is difficult because of measurement error problems. The recent shift away from interest rates as an intermediate target may therefore make this separation of accommodation and stabilization in monetary policy feasible. But if this proves impractical, an alternative way to get the separation would be to rely solely on fiscal policy for stabilization purposes with monetary policy having no cyclical role. The effect on aggregate demand policy in general would be very similar.

Recent statements about aggregate demand policy have not explicitly ruled out countercyclical goals, though in the views of many market participants an increase in money growth such as would be suggested by such a rule might be interpreted as a return to accommodative policies. If so, only explicit interpretation and discussion of policy intentions can seem to help credibility. Such discussion appears crucial if today's policymakers are not to be forced into a dead-end situation where good policy can only be interpreted as a loss of credibility.

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