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9 Macroeconomic Policy, 1971–75: An Appraisal

William Poole

I was invited to examine the macroeconomic policy of 1973–75, but limiting the analysis to those years runs the risk that the major lessons of this period will be lost. Since the events of 1973–75 cannot be understood without reference to the highly expansionary policies of 1972 and the disruptive impact of the wage-price controls introduced in August 1971, I have taken the liberty of redefining my topic.

The controversy over policy in this period centers on monetary policy in 1974. In the first major section of the paper I sketch the policy activists' position on this controversy—the position that the oil price shock should have been accommodated by extra monetary expansion. The next section of the paper contains three subsections in which I provide my thoughts on the monetary, fiscal, and price control policies of the 1971–75 period. The final section contains some general observations on the lessons of the period.

The Activists' View of 1973–75

Since this paper might have carried the title, "The Case against the Case against Macro Policy in 1973–75," I might as well begin my discussion by outlining what I understand to be the typical activist position on macroeconomic policy for 1973–75. Hoping to use a reasonably neutral and descriptive term, I have called this position "activist" rather than "conventional" or "Keynesian," but a case might be made for these other terms.

This paper was half completed when I read the paper by Robert Lucas prepared for this conference. The Lucas paper has certainly helped me to clarify my thinking about the lessons to be learned from the 1971–75 experience.

In any event, the dispute centers on policy, and especially monetary policy, in the first half of 1974. The activists' view is that policy was far too tight at that time. Using the most recently revised quarterly average data, M1 and M2 growth rates from 1973:IV to 1974:II were 5.9% and 8.5%, respectively.[1] The monthly average federal funds rate was pushed from 8.97% in February 1974 to 12.92% in July 1974. While the change in the federal funds rate was large, and the July 1974 peak was historically high, the M1 and M2 growth rates in the first half of 1974 were not low by long-term historical norms and were essentially unchanged from their respective growth rates over the preceding year.

The argument that money growth in early 1974 reflected a very tight monetary policy depends on the observation that growth in real balances was abnormally low. With the GNP deflator rising at a 9.5% rate from 1973:IV to 1974:II real M1 growth was —3.6% and real M2 growth was —1%. The policy significance of this observation, however, depends on the assertion that the inflation of the period was largely exogenously determined by supply shocks; the rising price of oil was not offset by declines in other prices because in the short run many prices are downwardly rigid. If this view is accepted, then it appears to follow without further argument that nominal money growth was too low in early 1974. The Federal Reserve, on this argument, should have adjusted upward the rate of growth of nominal money balances to maintain at least some growth in real balances.

While I do not accept the view that the price level can be taken as exogenous for policy purposes and will discuss the issue below, at this point it is worth noting that the logic of the activist position requires indictment of monetary policy in 1972. At the same time price controls were exogenously forcing down the rate of inflation, nominal money growth was accelerating. From 1971:IV to 1972:IV, M1 and M2 grew at 8% and 10.6% rates, respectively, while the GNP deflator grew at a 4.1% rate. The economy expanded excessively rapidly, and in early 1973 the unemployment rate dropped below 5%. The 1972 controls price shock should have been accommodated by lower money growth.

While most activists do condemn 1972 monetary policy, as I understand their position the magnitudes involved require that the greater criticism be applied to policy in 1974. In 1973 unemployment was only slightly less than the natural rate and so excess demand is capable of explaining only a small part of the 1973–74 acceleration of inflation—perhaps only half of one percentage point. Since controls are estimated to have reduced the price level to a point about 2% below what it other-

1. These growth rates, along with all other growth rates reported below, are continuously compounded annual rates of growth.

wise would have been at the end of 1972,[2] the breakdown of controls per se could account for at most a 4 percentage point acceleration in the inflation rate in 1973—two percentage points of return to the underlying inflation rate of about 6% plus 2 percentage points catch-up. In addition, some extra inflation may have resulted from controls mismanagement. The off-again, on-again phases and freezes of 1973 generated some production inefficiencies and some anticipatory price increases.

In sketching the activists' position I hope I have not set up a straw man; I certainly have not intended to do so. This position does not require that the inflation rate be completely insensitive to business conditions. Indeed, most of those adhering to the activists' position believe in a Phillips curve, although one that is fairly flat in the short run. The key feature of this view is not that unemployment is irrelevant to inflation but that in 1973 and the first half of 1974 unemployment was so close to the natural rate that the acceleration of inflation must be attributed primarily to exogenous food, fuel, and controls mismanagement supply shocks.

Destabilization Policy 1971–75

An important lesson from 1973–75, I believe, is that destabilizing policies really are destabilizing. This lesson cannot be understood by concentrating on the period 1973–75 alone; the events of 1971–72 must be examined at the same time. Monetary policy, fiscal policy, wage-price control policies, and normal business cycle dynamics interacted with each other in a highly destabilizing manner. The supply shocks were of some importance but mostly because of the controls. The nature of these policies and their interactions will now be sketched.

Monetary Policy. Over the period 1971–75 the money stock followed a classic destabilizing pattern. To avoid getting bogged down in numbers I will concentrate on M2, but the timing of accelerations and decelerations of M1 was broadly similar.

After growing at a trend rate slightly below 9% in 1970–71, M2 growth accelerated to a rate of 10.6% between 1971:IV and 1972:IV. This acceleration may be regarded as highly expansionary for three interrelated reasons. First, continuation of the 9% rate of M2 growth would have been consistent with a cyclical recovery. The rate of inflation was gradually creeping down before controls were imposed and would have continued to do so had controls not been imposed. With the inflation

2. Robert J. Gordon, "The Response of Wages and Prices to the First Two Years of Controls," in Arthur M. Okun and George L. Perry, eds., *Brookings Papers on Economic Activity* 1973, 3:765–78.

rate creeping down, a 9% rate of M2 growth already reflected a monetary policy consistent with rapid expansion in real output.

Second, wage-price controls did, I believe, suppress inflation for a time. For a given rate of nominal money growth, the suppression of inflation generated larger real money growth and, therefore, tended to stimulate real output growth. And third, nominal M2 growth did not remain at 9% but accelerated to 10.6%. With the GNP deflator rising at a 4.1% rate between 1971:IV and 1972:IV, real M2 balances grew at a 6.5% rate over this period.

The acceleration of money growth in 1972 was clearly a mistake—as I believe most policy analysts will agree. But it should be understood that this mistake was partly caused by the introduction of wage-price controls in 1971. The Federal Reserve was under considerable political pressure not to "scuttle prosperity" through tight money, especially after price control policies were introduced to solve the inflation problem. In addition, as I have argued elsewhere,[3] the Federal Reserve was concerned that holding money growth down would require interest rate increases that would undermine political support for "tough" wage and price standards.

Following its 1972 acceleration, M2 growth returned to a rate only slightly below its 1970–71 rate—8.5% from 1972:IV to 1974:II. This lower rate collided unavoidably with the price and output effects of the 1972 acceleration. Real balances in early 1973 were above those desired in equilibrium. An attempt to maintain the higher real balances through higher growth in nominal balances would have led to an even greater acceleration in inflation.

This view, of course, is disputed by those who argue that the evidence from Phillips curve studies indicates that unemployment was not low enough to cause a substantial acceleration in inflation. But it is impossible for the usual Phillips curve approach to deal adequately with changing inflation expectations. Surely, if ever there was a time when a substantial outward shift in the Phillips curve occurred because of rising expectations of inflation, then that time would be 1973. The transition from Phase II to Phase III was widely interpreted as a relaxation of controls, and controls were in any event breaking down in many areas because of growing shortages of goods.

While very little is known at the empirical level about the dynamics of adjustment, I believe that some degree of overadjustment in the price level is quite likely. As inflation in 1973 worked down the level of real balances, inflation also served to reduce the desired level of real balances by raising the cost of holding money. Given the path of nominal money

3. William Poole, "Burnsian Monetary Policy: Eight Years of Progress?" *Journal of Finance* 34 (May 1979):473–84.

balances, inflation was partly self-generating for a time. But the process, while oscillatory, was not unstable; eventually the price level increased to the point where excess real balances were eliminated.

As real balances were further reduced by inflation in 1974, aggregate demand weakened. This process was then aggravated by the unambiguous monetary policy mistake of permitting a sharp decleration in money growth in the second half of 1974. Between 1974:II and 1975:I, M2 growth averaged 6.2% annual rate. Without this deceleration the recession would not have been quite as bad as it was, but it seems unlikely that the recession profile would have been much different if 8.5% M2 growth had been maintained.

Fiscal Policy. Fiscal policy from 1971 through 1974 was destabilizing although, in my opinion, of much less quantitative importance than monetary policy. As estimated by the Federal Reserve Bank of Saint Louis, the high employment budget deficit was $7.8 billion in 1971. During the boom year of 1972 the high employment deficit was $15.5 billion. As the rate of growth of real output fell in 1973 and became negative in 1974, the high employment budget deficit fell to $4.6 billion in 1973 and in 1974 turned into a surplus of $1.1 billion. Fiscal policy provided no stimulus during the contraction phase of the business cycle, although it did turn expansionary at about the time of the recession trough in 1975.

Many observers have noted that the major explanation for the contractionary course of fiscal policy in 1973–74 is the high elasticity of federal revenues with respect to nominal income. Inflation-generated increases in nominal income yielded continuing growth in real tax revenues at rates above the growth in real GNP.

Although fiscal policy was operating as an automatic destabilizer in 1973–74, it would in principle have been possible for discretionary policy changes to offset the automatic destabilizers. But in the inflationary environment of 1973–74, tax cuts seemed out of the question politically. This observation makes clear the importance of designing a fiscal policy structure with desirable operating properties—a structure involving automatic stabilizers. The key fiscal policy lesson from this experience is the importance of indexing the tax system.

Wage-Price Controls. The macroeconomic effects of wage-price controls are, I believe, generally underestimated. There are certainly many stories about inefficiencies caused by the last set of controls—new apartments sitting idle for many months because of controls-induced shortages of plumbing fixtures, and so forth. It is, I suspect, no accident that productivity growth was subnormal, even adjusted for normal cyclical patterns, in 1973–75.[4]

4. See George L. Perry, "Potential Output and Productivity," in Arthur M. Okun and George L. Perry, eds., *Brookings Papers on Economic Activity* 1977, 1:11–47, especially 34–38.

Analysis of controls is of great importance in assessing the argument for monetary accommodation of the "oil shock." It is crystal clear that price controls and quantity allocations magnified the problems caused by the OPEC price increases and the oil embargo. Few will forget the disruptions caused by the unavailability of gasoline in the winter of 1973/74, but a few numbers will serve to indicate the magnitude of the regulatory disaster.

First, when the embargo began in October 1973, the U.S. petroleum industry had already been disrupted by controls and spot shortages of petroleum products had appeared. Total inventories of crude oil and petroleum products had declined by 3% in the 12 months ending 5 October, 1973. The embargo ended in mid-March 1974, but, because of the regulatory fiasco, inventories had been accumulated rather than run down during the embargo. At the end of March 1974 total inventories were 6% above their levels a year earlier; gasoline inventories were about 7% higher while distillate fuel oil inventories were almost 20% higher. While price indexes for petroleum products in this period were probably lower than they otherwise would have been by virtue of the oil price controls, the disruption of the production process must surely have raised the prices of other goods. Without price controls the erosion of real balances in the first half of 1974 might have been smaller.[5]

The disruption argument is reinforced by the fact that industrial production reached a peak in November 1973 and then declined substantially in each of the next three months. This output decline cannot possibly be attributed to a decline in real money balances; if the numerator of real balances had declined rather than the denominator increasing, no one would have predicted that industrial production would start falling with a one-month lag.

Without relaxation of controls monetary accommodation of the oil price shock would have been less successful than the activists' position might suggest, even accepting the assumptions of that position. During the embargo larger aggregate demand would have increased the size of the petroleum products shortage and, presumably, the shortages of goods whose production is heavily dependent on petroleum products. Thus, more of any nominal aggregate demand stimulus would have been dissipated in price increases than relationships estimated in noncontrol environments might predict.

After the embargo, assuming continuation of price controls on domestic crude and petroleum products, stimulus to aggregate demand through extra monetary expansion would also have been dissipated in

5. The inventory figures in this paragraph are from Richard B. Mancke, *Squeaking By: U.S. Energy Policy Since the Embargo* (New York: Columbia University Press, 1976), table 2.1, p. 24.

price increases to an unusual extent. With the price of domestic crude controlled but the prices of labor and other inputs to crude oil production not controlled, and with a growing gap between the controlled price of "old" oil and the expected future price of oil, demand stimulus would have tended to reduce domestic crude production further. To the extent that aggregate output rose the extra petroleum demand would have been satisfied by extra imports. These two extra sources of demand for petroleum imports would have made the foreign exchange value of the dollar depreciate more rapidly and would, therefore, have quickly increased the prices of many tradable goods.

The 1973–74 experience shows that price controls can leave an industry highly vulnerable to disturbances. While this point may be disputed by price control advocates who insist that the problem was not with controls per se but with their administration, I believe that administration of controls by a competent independent agency would have caused basically the same problem. The 1960s guideposts were justified in part by the argument that they would help to prevent "premature inflation"—price increases that occurred before capacity production was attained. The U.S. oil embargo experience provides a clear example of the benefits of firms maintaining some margin of excess capacity, excess capacity that could not exist with controls under the premature inflation doctrine.

Whatever the merits of my analysis of the probable performance of an independent controls agency, experience with price controls in oil and many other industries demonstrates that controls cannot be kept out of the political process and that the political process does not produce even remotely sensible controls decisions. Controls are futile and disruptive, period. And they spill over to affect traditional stabilization policies as my earlier comments on Federal Reserve efforts to limit interest rate increases in 1972 pointed out.

Some General Comments on 1971–75

I have insisted on discussing the period 1971–75 rather than just 1973–75 because the problems of the later years cannot be understood without reference to the earlier years. The entire period is especially interesting because it shows how policy was constrained in 1973–75 by policies followed in 1971–72 and earlier and by market expectations concerning future policies.

The 1973–74 experience with fiscal policy is helpful in explaining a poorly understood point about monetary policy. Although monetary policy is supposed to be flexible, it is in fact subject to the same types of political constraints as fiscal policy. For a clear example of these constraints, consider the allegation made by some that Federal Reserve policy

in 1972 was politically motivated to help the reelection of Richard Nixon. In the absence of "smoking gun" evidence such a charge can be neither proved nor disproved and so is not a good subject for scholarly inquiry. What can be investigated, though, is the impact of such charges on monetary policy. My distinct impression from following monetary policy over a period of years is that Federal Reserve officials do feel constrained to follow policies that "look right" to the public and the Congress. With respect to stabilization policy, the Fed probably does have more room to maneuver than Congress has, but the difference should not be exaggerated.

By concentrating on the analysis of discretionary policy, economists have neglected study of the actual operating properties of monetary and fiscal policies determined importantly by feedback from the political process and from the reactions of those dealing in speculative markets. The recent concentration of some economists who used to be called "fiscalists" on discretionary monetary policy reflects, I suspect, a feeling that in the United States discretionary fiscal policy is a lost cause politically. Thus, there is no point in criticizing fiscal policy for failing to offset the oil price shock. But recognition of the impossibility of well-timed discretionary fiscal policy, instead of generating renewed interest in fiscal policy by formula flexibility, has led fiscalists to turn their interest to discretionary monetary policy without recognizing that the same issues arise in both policy areas.

Fiscal policy can be used, and has been used, to pump up expenditures and cut taxes in an election year, but those playing the game had better play with a certain amount of discretion. Somewhat higher political standards are demanded of U.S. monetary policymakers, as the controversy over 1972 policy makes clear. My guess is that at many points in time monetary policymakers have freedom roughly comparable to that of election-year fiscal policymakers.

The activists who advocated 12%–15% money growth in the first half of 1974 are in the same political boat as those who advocate special tax rebates. No matter how sound the analysis, tax rebates payable on the Monday before the first Tuesday in November of an even-numbered year just do not look right, and neither does a special, one-time dose of extra money growth when the inflation rate has hit double-digits and the unemployment rate is about 5%. A substantial increase in money growth in early 1974 could have generated political charges that the Fed was trying to prop up a weakened Republican party before the fall elections; it could also have triggered sharp declines in the stock, bond, and foreign exchange markets as investors increasingly feared a further acceleration of inflation. Such events would have forced the Federal Reserve to follow more stringent policies.

Experience with wage-price controls contains the same lesson. To the economist, nothing is more natural than to raise price ceilings whenever shortages develop, provided, of course, that the control agency has investigated the shortages and determined that they are not "artificial" or "contrived." But politically there is no question that the most difficult time to raise price ceilings is when there *are* shortages.

In a democratic society the behavior of all public officials is severely constrained by some combination of explicit legislation and implicit norms. Even policymakers with apparently unlimited discretion on paper are substantially constrained. The key feature of the implicit norms relevant to discretionary policymaking is that the norms, like explicit legislation, are determined in advance of the events to which they apply precisely so that the policymaker will not be able to pursue personal objectives inconsistent with his public responsibilities.

Advocates of discretionary policy have concentrated their analysis on uncovering the economic structure and on diagnosing disturbances so that the optimal policy response can be calculated period by period. Although this analysis has suffered from the failure of the models employed to handle rational expectations issues, model builders are acutely aware of the need to improve their models and are constantly trying to do so. But advocates of discretionary policy seem almost oblivious to the need to think about the analytical implications of being forced by the political process to follow policy rules that sharply limit discretion. A simple example is that most advocates of price controls would probably abandon the policy altogether if told that no price ceiling could be adjusted by more than 6% per year.

Although I do not have great confidence in my positive political analysis because my "knowledge" consists of nothing more than undocumented impressions, I think I know something about the norms applying to particular policies. In the policy area I know best—monetary policy—I am convinced that a lack of public appreciation for the lags in monetary effects and excessive attention to interest rates generates a monetary policy that is naturally procyclical. Political norms do not by any means rule out policy responses to special events. In the monetary policy area there is a well-established class of special events known as "financial panics" under which central banks not only can act but are expected to act. The Federal Reserve's response to the Penn Central failure in 1970 was certainly consistent with this implicit rule. A similar analysis applies to Federal Reserve support of the Franklin National Bank in 1974, although here the Fed had to be concerned about the charge that it was bailing out the bank's owners and management at the public expense. The public correctly perceives that some public officials are scoundrels; until oil shocks and similar events are placed in a broad

class of events subject to norms defining the appropriate policy response, policymakers will not be able to respond to such disturbances to the full extent indicated by "all available information."

I suspect that a strong and politically astute Federal Reserve chairman could break the procyclical pattern of general monetary policy, but I have more confidence that a well-designed legislated policy rule could provide a permanent improvement than that we will be fortunate enough to have an endless string of highly competent Federal Reserve chairmen. Given the vehemence with which so many activists complained about monetary policy in 1974, I am surprised that so few of them share this view.

The research agenda implied by this discussion has two major items. At the level of economic analysis per se there is need for examination of alternative policy rules. This item does not, or need not, reflect ideological commitment to rules and ideological opposition to discretion but rather the empirical proposition, which is subject to investigation, that discretionary policy in the United States has been subject to political processes that produce a suboptimal policy response pattern.

The second item on the research agenda is an improved understanding of the nature of the policy response patterns generated by the political process. Positive analysis of the political process is of interest for its own sake but is also important for the economist as a policy adviser. One of the arguments against legislated policy rules has always been that it takes discretion to enact legislation, and discretion can repeal legislation. The argument is correct, but incomplete. Legislation does make a difference; laws are not typically ignored or abandoned on short notice. Indeed, this point is recognized by rules opponents who argue that legislated rules will lock us into harmful and outmoded policies. The economist as policy adviser needs to know something about the political process so that he can propose rules that are consistent with it.

If asked to speculate on the nature of the optimal monetary policy rule I would first emphasize that it is a mistake to approach the problem as one of designing a rule expected to be optimal for all time. The operation of any rule is bound to generate evidence pointing toward modification of the rule. In addition, since public attitudes change through education and experience, a desirable rule that is not politically feasible now may become so later. The policy problem is not that of devising an optimal policy rule but rather that of devising an improved rule that can evolve over time as evidence accumulates and public perceptions change.

The events of 1971–75 strengthen the case for adopting a steady growth monetary rule. Given the lack of public understanding of the lags in the effects of monetary policy changes, a reactive rule designed with lags in mind seems unlikely to survive politically. While a steady growth policy may not survive politically either, it at least has a better chance

than a reactive rule that almost certainly will at times appear perverse to the layman. In addition, a reactive rule is clearly subject to opportunistic tampering since the evidence on the length of the lags in policy effects is not strong enough—probably because the lag process is not at all stable—clearly to justify one particular reactive rule over another.

The political question in the design of policy rules is one of feasibility in the fundamental rather than the partisan sense. Successful policy advisers have always operated with an intuitive feel for political processes, but surely the methods of social science can add much to our understanding. Multiple regressions and explicit policy rules will never replace the policy adviser who has brilliant political intuition but they will make it possible to pass along a certain amount of knowledge from one generation to the next.

Comment James L. Pierce

Poole's paper provides a thoughtful appraisal of macroeconomic policies over the years 1971–75. Poole had been asked to analyze the policy implications of OPEC but concluded, quite correctly I believe, that the macroeconomic effects of OPEC cannot be understood adequately without appraising the initial conditions for the macroeconomy prior to the formation of the oil cartel. These initial conditions can be appreciated only after examining the macroeconomic policies of earlier years, which can hardly be viewed as exerting a stabilizing influence on the economy. The imposition of price controls in 1971 and the highly expansionary monetary and fiscal policies that followed produced economic distortions and inflationary pressures that, in turn, led to the subsequent relaxation of price controls and rising inflation. The economy possessed an unusually bad set of initial conditions upon which were superimposed the quadrupling of oil prices in 1973. The surge of inflation that followed produced highly restrictive monetary and fiscal policies. The economy responded to the shocks—both external and self-inflicted—by producing the worst collapse of real output since the 1930s. Poole concludes that matters had gotten out of hand and that political considerations helped to turn policy restrictive in 1974. He argues that a more steady monetary policy during the entire 1971–75 period would have been beneficial for the economy.

In reaching his conclusions, Poole revives the old question of rules versus authority in the execution of monetary policy. He concludes that rules seem preferable to the kinds of macroeconomic policies that have actually evolved. In the current context, the issues can be developed by asking the question: Are there shocks, such as the one created by OPEC,

for which it is appropriate and desirable for policy to react? Solow answers yes, the government should have moved to offset the aggregate demand effects of OPEC. For him an activist policy is desirable. Poole is a little less clear on the answer to the question but points out that previous policy errors seriously affected the conditions in the economy upon which were superimposed the actions of OPEC. Poole seems to be arguing that policymakers cannot be trusted to pursue activist policies. Political and other factors can prevent the appropriate activist policies from being pursued.

The argument for rules to constrain the execution of monetary policy has been made forcefully and repeatedly by Milton Friedman. A description of the kinds of rules that might be applied are summarized in the paper by Lucas. There are two elements in the argument for rules. First, policymakers often cannot be trusted to do the right thing because of political and other noneconomic factors. Second, there is such ignorance of the true structure of the economy that activist policy strategies produce economic consequences that are inferior to the consequences of pursuing a simple rule. There is ample evidence to support the first argument. The second argument is more difficult to analyze, but it can be shown for certain models with stochastic structures, under certain conditions, pursuit of a rule can produce "optimal" policy. These results, however, hold for well-behaved stochastic disturbances and have nothing to say about the kind of shock produced by OPEC. There was no way to anticipate that shock, but once it occurred there was ample evidence that it produced a disturbance to aggregate demand that could have been offset to a degree by more expansionary policy. This is Solow's point. To be sure, ignorance of the exact effects of expansionary policy would limit the extent of the policy move, as would the political problems discussed by Poole. But despite these limitations, pursuit of a policy rule in the face of OPEC-type shocks represents a very restrictive policy.

It appears that the economy would have been better off if the Fed had moved to offset part of the decline in aggregate demand that resulted from the increase in the price of oil.[6] In my opinion it would have been desirable and politically feasible for the Fed to have pursued such a policy *if* it had announced what it was doing. In particular, it would have to explain that it was not "accommodating" the inflation but rather acting to cushion the economy from the collapse in aggregate demand that occurred in 1974.

A particularly unfortunate consequence of the monetary policy of 1973–74 was that it was extremely difficult for private agents in the

6. For a discussion of the kinds of policy responses that might have been appropriate see Pierce and Enzler, "The Effects of External Inflationary Shocks," *Brookings Papers on Economic Activity* 1974, 1.

economy to figure out what the monetary policy strategy was. It seems fair to say that these agents were surprised both by OPEC and by the monetary policy that followed it. Previous experience strongly suggested that monetary policy would have been accommodative in the sense that the Fed would have limited the increases in the interest rates that accompanied the surge of inflation and scramble for credit. Agents were surprised and often chagrined to learn that the Fed had changed the rules of the game. Short-term interest rates were allowed to rise at unprecedented speed. As a result, many agents got caught with the need to roll over short-term liabilities at rapidly rising cost while seeing the yields on their longer-term investments not rise in commensurate fashion. Turmoil resulted, and at times it became extremely difficult for many firms to roll over their liabilities. The uncertainties and confusion about monetary policy interacted with the uncertainty and confusion stemming from OPEC, price decontrol, and all of the other factors that were hitting the economy. During the episode, the policymakers, both fiscal and monetary, were either silent about their intentions or were issuing the kind of optimistic claptrap that one has come to expect from Washington. Thus, the statements from policymakers coupled with actual policy actions heightened uncertainty.

During the period from late 1973 through late 1974, monetary policy was for the first time on an M1 target. That is to say, the Fed was actually trying to achieve an M1 growth of 6% or less as opposed to just making public utterances about money targets. This shift in policy strategy was unprecedented and produced many surprises in financial markets. Solow's analysis and the results from many other plausible models imply that a fixed target for money is inappropriate when external supply shocks occur. It is interesting that it was in response to such a shock that the Fed decided to pursue an M1 strategy. Perhaps this shift makes Friedman's point: central bankers are not to be trusted. A smoother policy as suggested by a rule would be preferable in many cases to the kinds of policy we can apparently expect.

But literal application of a policy rule through law or constitutional amendment is likely asking society to perform a lobotomy on itself because the patient will feel happier that way. Such radical procedures do not seem justified. It does seem justified to push for more orderly and predictable policies but to expect policy to cushion the effects of external shocks. I believe that disclosure of policy strategies and intentions is the best way to accomplish these ends.

It was disappointing that neither Poole nor Solow really addressed the basic issue raised by the proponents of rational expectations. Private agents do attempt to interpret current policy and they attempt to anticipate future policy. A more stable policy is a more predictable policy and agents can accommodate their actions to it. Even if policy were

always "wrong" in a predictable way, perhaps agents could counteract at least some of its effects. But unfortunately policy is often unpredictable. A mildly "activist" policy would be unpredictable to the extent that shocks to which it responds are unpredictable. But if agents could have a reasonable expectation that policy would at least move in the right direction following discrete and unusual events such as OPEC, the economy would almost certainly be better off than by slavishly following a fixed rule.

General Discussion

Benjamin Friedman said he would try to connect his discussion of the Solow and Poole papers with the earlier discussion of the Lucas and Fischer papers, during which it seemed generally agreed that monetary policy in 1974–75 was poor. The growth rates of money (M1) on an annual basis (annual average M1, year over year) were 6.7% in 1971, 7.1% in 1972, 7.5% in 1973, 5.5% in 1974, 4.4% in 1975.

He suggested four possible reasons for arguing that policy in 1974–75 was poor:

1. The growth rate of M1 was not moved to 4% quickly enough.
2. The growth rate of M1 was moved to 4% too quickly.
3. Because oil prices had risen substantially, it was a bad time to go to a 4% money growth.
4. Policy erred by thinking in terms of a 4% rule at all.

Despite the agreement that policy was poor, Friedman sensed strong disagreement about why; indeed, some people who criticized policy seemed reluctant to say why. Friedman himself preferred the fourth answer: he thought policy in the first half of 1974 had been in error in allowing interest rates to rise so high. He dissented from the view that either policymakers or economists were more aware now of the need for caution and prudence than they had been in the 1960s. William McChesney Martin was hardly incautious. What has changed is the base against which caution is judged: it used to be interest rate movements and it is now money growth. He thought a more prudent approach would recognize that both money growth and interest rates conveyed information to policymakers.

Robert Hall noted that calculations made by him and Knut Mork, as well as work by Eckstein, suggested that OPEC was responsible for only a part of the fall in real GNP in 1974 and 1975. For that reason he thought that a small increase in unanticipated money would have accommodated the OPEC shock. Hall noted that there had in addition been a dramatic unexplained drop in productivity in 1974–75. A third reason

frequently given for the recession, the drop in inventory investment, was not well understood but could not be regarded as exogenous.

Robert Gordon said that of the 12% price rise in 1974, 6% could be attributed to inherited expectations and excess demand, 1% to food, 2% to energy, and 3% to the end of controls. He felt that Solow had missed a key issue by not considering the sensitivity of the real wage to aggregate demand. The United Kingdom, Italy, Canada, and Sweden had all pursued policies of accommodation in 1974 and 1975, real wages had not fallen at the time, and more severe recessions followed later. Switzerland and West Germany had elected to take their medicine early.

Alan Blinder thought that 3.4% would be a better estimate of the effect of energy price increases on the overall CPI. He added that close to 100% of the acceleration of nonfood and nonenergy inflation from February to October of 1974 was a result of the lifting of controls. He agreed with Poole that controls were a bad idea and that economists should say so. But he disagreed with Poole's view that economists should worry about political constraints on policy: economists should advocate what they believe to be optimal policies.

Phillip Cagan agreed that the direct effects of energy and oil price increases had been small but said that pursuing those increases through stages of processing would account for ⅜ of the price rise. He added that the difficulty of measuring the size of the shock made it difficult to know how much accommodation should have been provided.

Robert Weintraub also felt that the effects of the oil price increase were larger than Hall and others suggested. As a crude approximation, the increase in the price of imported oil multiplied by the share of such oil in GNP would account for a 4.4% price rise. On the timing of policy, he felt that monetary policy had been particularly poor in late 1974, when fiscal policy was also contractionary. Finally, he remarked that changes in monetary policy did not require constitutional change: the Fed could operate by following legislative rules, or rules of its own choosing.

Frank Morris said it was not true that the Fed had started following a monetary growth rule in late 1974. They had started in 1972 but had mistakenly thought the natural rate of unemployment was between 4.5% and 5% rather than 5.5%. By 1973 they were aware they had made a mistake. He thought monetary policy in 1973 had been reasonable, although the food price rise was a surprise. Monetary policy in the first half of 1974 had been satisfactory but other conditions, especially inventory overaccumulation, made the recession inevitable. Monetary policy had erred in the second half of 1974: the size of the recession had been underestimated and monetary policy turned around too late.

Robert Solow said that zero accommodation was not necessarily a good approximation to the best policy merely because actual policy had

not been particularly successful. He also remarked that policymakers pretend to be constrained to get themselves off the hook when policy is criticized.

William Poole responded that he still did not believe it useful to recommend policy without regard for public attitudes.