

SOME THOUGHTS ON PRACTICAL STABILIZATION POLICY

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Abstract

This paper argues that the primary objective of monetary policy should be long run price stability or at least a low average rate of inflation. But there is also a welfare improving role for monetary policy in helping the economy adjust to non-policy shocks. This gives rise to a fundamental tension in the conduct of monetary policy. Understanding this tension is central to interpreting the qualitative properties of actual monetary policy, for evaluating its effects and for thinking about alternative institutions that would lead to better monetary policy.

Is there a core of practical macroeconomics that we should all believe?¹ Given my limited space constraints, I won't try to discuss a top ten list of eternal macro truths. Nor will I discuss the importance of modelling macro phenomena using quantitative general equilibrium models. Instead I will approach the question from the perspective of stabilization policy. So defined, my answer to the question is: Yes, there is a core of practical macro. And as regards stabilization policy, most of it has been learned in the past twenty eight years as the profession has collectively struggled with the task of separating the wheat from the chaff of Milton Friedman's Presidential address (Friedman 1968). The net result has been a fundamental shift in methodology and core beliefs about stabilization policy.

The critical change in methodology was the switch to thinking about stabilization policy as a game theoretic problem, rather than a control theory problem. The change in substance

involved a fundamental shift in the profession's views about the cyclical roles of fiscal and monetary policy.

In sharp contrast to the views that prevailed in the early 1960's, there is now widespread agreement that counter cyclical discretionary fiscal policy is neither desirable nor politically feasible. Practical debates about stabilization policy revolve almost exclusively around monetary policy. To an extent that would have been virtually impossible to predict thirty years ago, these debates are grounded in a number of widely agreed upon propositions.

First, excluding anticipated inflation effects, monetary policy is neutral in the long run. At the very best, the long run Phillips curve is neutral. More likely it slopes the wrong way, so that high rates of inflation are correlated with low growth rates. Second, *persistent* inflation is always a monetary phenomenon. Third, monetary policy is not neutral in the short run. Fourth, most aggregate economic fluctuations aren't due to monetary policy shocks.

A corollary of the first two propositions is that the primary objective of monetary policy should be long run price stability or at least a low average rate of inflation. A corollary of the last two propositions is that there is a welfare improving role for monetary policy in helping the economy adjust to non-policy shocks. This is because the kinds of models that have any chance at all of accounting for how the economy responds to a monetary policy shock imply that a k% rule for money growth is not optimal.

Taken together these corollaries point to a fundamental tension in the conduct of monetary policy. How can we achieve the second objective without compromising the first? Understanding this tension is central to interpreting the qualitative properties of actual monetary policy, for evaluating its effects and for thinking about alternative institutions that would lead to better monetary policy.

To be concrete: the Fed tries to achieve the first objective of monetary policy, a low rate of inflation, by slowing down the growth rate of money when inflation starts to rise. Indeed, there are substantial pressures on policymakers to engage in *preemptive* strikes against inflation even before actual inflation moves, say when the unemployment rate approaches the *NAIRU du jour*.

On the face of it, such behavior is difficult to understand. If persistent inflation is

always a monetary phenomenon, is such a policy tantamount to an admission that the Fed is constantly trying to rectify its own past mistakes? Or perhaps the Fed is simply confusing transitory movements in the price level with persistent inflation? Either way, current Fed policy cries out for an explanation.

In fact there are ways to rationalize current Fed policy - so long as one takes as given our current institutions for setting monetary policy. Specifically, in ongoing research V.V. Chari, Lawrence J. Christiano and I argue that preemptive strikes against inflation eliminate the possibility that the Fed will be *pushed* into persistent inflation episodes whose end would inevitably involve large recessions. A crucial caveat to this rationalization, is that it depends in a critical way on taking as given our current institutions for setting monetary policy. But there is no reason to do so. The essence of good monetary policy *is* good institutional design. And good institutional design might free Fed officials from the need to constantly hit *us* in the head to prove how tough *they* are.

In the remainder of my comments, I will try and expand on these points. I begin with an axiom. Properly conceived of the policy problem is the task of selecting stable, predictable rules *and* the design of institutions which are capable of supporting those rules as equilibrium outcomes. The argument for this position is a practical one. The class of policies that we have any hope of reliably evaluating are those corresponding to well understood, relatively permanent rules. Without credible institutions to support them, rules will not be relatively permanent.

The inability to find a satisfactory way of formulating discretionary fiscal policy as an implementable rule and a set of practical institutions to support that rule has led even most Keynesians to be skeptical of attempts to use discretionary fiscal policy to stabilize business cycles. It is an interesting curiosity that Keynesians and Real Business Cycle (RBC) analysts agree that, in principle, increases in government purchases and decreases in distortionary taxes increase aggregate employment and output, at least in the short run. And most economists would agree that, as a practical matter, deficits increase output in the short run but probably decrease it in the long run.

Of course most RBC models don't embody the recommendation that fiscal policy *should* be used for stabilization purposes. And most Keynesian models do. But in practice, most

Keynesians exhibit at best luke warm enthusiasm for counter cyclical fiscal policy, other than that which is embedded in automatic stabilizers. The problem is that counter cyclical fiscal policy has to be implemented in the context of a particular institutional environment. Even if you had the hubris to think that you knew just when and how much expansionary fiscal policy to apply, the lags inherent in our institutions for setting fiscal policy are such that it never happens in either the quantity or the time frame you want.

So for good or for bad, the practical stabilization policy debate will center on monetary policy. While there is much that we don't know, the debate can be grounded on some fundamental empirical truths about monetary policy that have been documented in the past twenty eight years. First, monetary policy doesn't affect the long run growth rate of output. This fact is the bedrock of all serious discussions about monetary policy. And it places fundamental limits on what we can expect of monetary policy. Over the long run, all that monetary policy can do is provide a stable environment within which agents can make decisions.

Second, monetary policy is *not* neutral in the short run. As an empirical matter, the classic Keynesian and vintage Real Business Cycle view about the cyclical ineffectiveness of monetary policy has been buried. In this sense we are all Friedmanians now. Third, there is wide spread agreement on the qualitative effects of exogenous disturbances to monetary policy. Specifically, we have persuasive evidence that after a contractionary monetary policy shock, the aggregate price level responds very little, aggregate output falls, short term interest rates rise, profits fall, and real wages decline by a modest amount.²

Models which have any chance at all of accounting for even this small list of facts imply that a $k\%$ rule for money growth won't be optimal when there are non policy shocks to the economy. We cannot as yet make scientific judgements about what *the* optimal rule is.³ In fact, we don't even have good quantitative measures of the non policy shocks which cause the bulk of aggregate economic fluctuations. Some of my colleagues stress the importance of mysterious objects called technology shocks. Other colleagues stress the importance of equally mysterious, even more poorly measured objects called demand shocks, animal spirits, and 'sun spots'. Regardless of who is right, it is clear that optimal policy will involve some accommodation of shocks to the economy, say of the sort embedded in an interest rate

smoothing rule.

Optimal policy aside, actual monetary policy in the US is surprisingly well characterized by what is sometimes referred to as a Taylor rule. The key features of that rule are that it calls for the Fed to raise the Federal Funds rate when inflation exceeds some target level or when real GDP growth exceeds its target level. The advantages of this rule are well known. But in implementing it, the Fed faces pressure to contract as soon as actual or *forecasted* inflation begins to rise, say because unemployment has approached the consensus value of *NAIRU*. Since contractionary monetary policy induces contractions in economic activity, there are clearly social costs associated with such a policy. Yet policymakers seem quite willing to engage in pre-emptive attacks against inflation or to move very quickly after what may amount to simply transitory moves in the inflation rate. On the face of it this seems puzzling. Surely no one at the Fed believes that low unemployment rates *per se* causes persistent inflation.

The key to resolving the puzzle involves answering the question: ‘Why do policymakers sometimes *choose* to produce inflation?’ Sometimes it’s driven by fiscal considerations. Sometimes it’s driven by the desire to exploit perceived short-run Phillips curve trade-offs. And sometimes, the monetary authority can be *pushed* into pursuing inflationary policies because of the private sectors’ expectations about future inflation. This is the kind of situation that Chari, Christiano and Eichenbaum (1996) refer to as an *expectation trap* and which Blinder (1982) called the *accommodation dilemma*. In my view, the fear of such a scenario and the belief that they lived through it in the 1970’s are at the heart of the Fed’s current willingness to launch preemptive strikes against inflation.

The basic idea about how private sector’s expectations can be a source of expectation traps and inflationary episodes is simple. Private agents’ expectations about future monetary policy actions affect their current decisions. Benevolent policy makers who have the discretion to react to these decisions may find it optimal to choose actions that validate agents’ expectations. So suppose that, for some reason, private agents come to expect future inflation. This expectation leads them to raise wages and prices immediately. A policymaker is then faced with the following dilemma: either accommodate the inflationary expectations or suffer a recession. A benevolent policymaker with the discretion to do so will often find it

optimal to accommodate. If so, the economy finds itself ensared in an expectation trap.

In Chari et al. (1996), as in most game theoretic models of policy, the expectation trap equilibrium is one of many possible sub game perfect equilibria. It arises because the central bank doesn't have access to a commitment technology. But a simple institutional change amounting to limited commitment on the part of the central bank would eliminate expectation traps as possibilities. In Chari et al. (1996), limited commitment takes the form of an institution that binds the Fed to one period ahead *state contingent* policy actions. Just like the institution of deposit insurance eliminates the possibility of bank runs, limited commitment rules out expectation trap equilibria.

The basic idea underlying an expectation trap does *not* depend sensitively on the assumption of rational expectations. Indeed the case becomes even stronger when agents have adaptive expectations. Imagine that there was a shock to the economy that generated a transitory rise in the inflation rate, say an adverse supply shock or a previous policy shock whose effect was to tighten labor markets and raise nominal wages. Whatever the precise cause of the initial movement in prices, to the extent that agents have *adaptive* expectations, say because they're learning about their environment in the sense emphasized by Sargent (1993), or because they're just plain dumb, these price movements would become embedded into agents' *expected* rate of inflation. But as soon as this happens, the story becomes identical to the expectation traps story. High expected levels of inflation would translate into high nominal wages and prices. Again the Fed is faced with the dilemma: accommodate or cause a recession. To the extent that they accommodate, like they did in the late 1960's and 1970's, transitory changes in the price level quickly translate into episodes of persistent inflation.

The prevailing wisdom among policymakers is that, regardless of how exactly you got into it, the only way out of such a scenario, is a long painful recession that rings inflationary expectations out of the system. To avoid the whole scenario, the monetary authority chooses to contract forcefully at the first signs of incipient inflation.

So regardless of the exact stance that you take on expectations formations, it's possible to construct a plausible defense of pre-emptive strikes against inflation. And if being practical means taking our current institutions as given, then practical macroeconomists probably

have little choice but to grudgingly endorse a policy of moving aggressively in the face of movements in the inflation rate.

But this practicality comes at a large social cost. Perhaps this is the price that we pay for asking the Fed to accomplish two tasks - helping the economy adjust to shocks and maintain a low average rate of inflation - with only one instrument. But there may be alternative institutional arrangements that would free us from this costly trade-off. Since I'm convinced that agents are forward looking, I'm optimistic that we can come up with such institutions. But suppose you don't share my view about the way agents form expectations. At a minimum we can agree that it would be socially optimal to fire some of the NAIRU types from their current jobs and have them teach Stokey, Lucas and Prescott (1989) to high school students. At least that way, agents would eventually be forward looking.

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6. Sargent, Thomas J. *Bounded Rationality in Macroeconomics*. New York: Oxford University Press, 1993.

FOOTNOTES

1. Comments prepared for a roundtable discussion at the AEA meetings, to be published in Papers and Proceedings, American Economic Review, May, 1997. I thank V.V. Chari and Larry Christiano for extensive conversations regarding many of the ideas in this paper which were developed in the course of our ongoing research.
2. See Christiano, Eichenbaum and Evans (1996) and the references therein.
3. Given more space, this is where I would make my plea for the importance of explicit general equilibrium models.