

## MISCONCEPTIONS REGARDING RULES VS. DISCRETION FOR MONETARY POLICY

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Shortly after the most recent of the famous annual symposiums at Jackson Hole, sponsored by the Federal Reserve Bank of Kansas City, one of my colleagues asked me if I had seen the *New York Times* and *Wall Street Journal* articles on the conference. They seemed newsworthy, he suggested, because of their reports that Alan Greenspan had come out clearly in opposition to the adoption of any monetary policy rule for the Fed.<sup>1</sup> I replied that I would certainly look at the articles, adding that Greenspan had explicitly expressed his opposition to rule-based policymaking on at least one previous occasion, probably more.<sup>2</sup> Upon reading the two articles, I found that both quoted from the following statement of Greenspan's: "Some critics have argued that [the Fed's] approach to policy is too undisciplined—judgmental, seemingly discretionary, and difficult to explain. The Federal Reserve should, some conclude, attempt to be more formal in its operations by tying its actions solely to the prescriptions of a formal policy rule. That any approach along these lines would lead to an improvement in economic performance, however, is highly doubtful" (Greenspan 2003: 4). Comments and panel discussions by Vincent Reinhart, Janet Yellen, Stanley Fischer, and Martin Feldstein mostly lent support to Greenspan's remarks in this regard, although there are a few reservations implicit in some of their passages.

At about the same time, I received in the mail a copy of Michael Woodford's new book on monetary theory and policy, *Interest and*

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<sup>1</sup>The articles are Andrews (2003) and Ip (2003a).

<sup>2</sup>The item that I had in mind is Greenspan (1997), a talk given at Stanford University.

*Prices* (Woodford 2003). This 785-page treatise is almost certainly the most ambitious treatment of the topic to appear since Don Patinkin's *Money, Interest, and Prices* (1956), and is an immensely sophisticated work that seems destined to become a classic in economic analysis. The point relevant to the matter at hand is that Woodford's first chapter (of 58 pages!) is entitled "The Return of Monetary Rules" and includes a section called "The Importance of Policy Commitment." Thus, there seems to be a major difference of opinion between academic analysts and central bankers, at least in the case of the Fed, concerning the desirability of monetary policy rules. Since the Shadow Open Market Committee regularly consults the indications from two such rules, the well-known Taylor Rule and another one that is of my design (McCallum 1988), this matter cries out for attention.

The first argument that I want to make is that the two groups, central bankers and academics, evidently have different practices in mind when they refer to "monetary policy rules." Thus, there could be less actual disagreement between (e.g.) Greenspan and Woodford than appearances and newspaper articles suggest. In fact, it is arguable that some leading central banks—though not the Fed—are actually conducting policy, at present and over the past several years, in a manner that is more consistent with "rules" than "discretion," in the sense of these terms as used by academics.

My second argument, however, will be less cheerful. It is that the Fed seems to deny or misunderstand the importance of the type of rule-based policymaking that academics have in mind. This misunderstanding, furthermore, is currently contributing to the problems of "communication with the public" that the Fed has been experiencing, as recently reported in the *Wall Street Journal* by Ip (2003b). The actual problem, I will argue, is not primarily one of communication but one of policy substance.

## Two Conceptions of Rules vs. Discretion

When central bankers object to the use of a policy rule, they typically refer to alleged constraints on policy flexibility. Evidently, the conception that they have in mind—at least in many cases—is a regime in which the central bank "has turned policy decisions over to a clerk armed with a simple formula and a hand calculator" or possibly "to a team of PhD economists armed with computers and Matlab programs" (McCallum 2000: 274). Academic specialists on monetary policy are fully aware, however, that no actual central bank is ever going to automate policy to that extent—as my quoted paper asserts,

as John Taylor (1993) emphasized in the famous paper that introduced the Taylor Rule, and as Woodford (2003: 24) clearly presumes. What these economists do have in mind will be discussed shortly.

As a prelude, however, it should be recognized that central bankers' stated objections to policy rules sometimes depart even further from the academic meaning by interpreting the term "rule" as if it necessarily implied a constant, nonresponsive instrument setting. This interpretation stems from Milton Friedman's famous rule, which promoted a constant growth rate for some specified monetary aggregate (such as M2, or M1, or the monetary base).<sup>3</sup>

At least since 1983, however, academic economists have distinguished between *activist* and *nonactivist* rules, with only the latter implying the special type of rule that requires a constant setting for the central bank's policy instrument (i.e., its directly controllable "operating target," such as the Federal funds rate, which the Fed uses to implement policy actions).<sup>4</sup> The activist type of a rule, by contrast, represents a contingency plan, typically expressed as a formula for setting an overnight interest rate in response to current economic conditions. So objections based on a presumption that rules in general are nonactivist are both illogical and misleading. Many central-bank economists are aware of this activist-versus-nonactivist distinction, however, and nevertheless argue that rule-based policymaking is too inflexible.<sup>5</sup> In that case they are presumably concerned primarily about the need for activist rules to be revised occasionally.

From the academic point of view, by contrast, the main issue is not about flexibility or its absence. Instead, the central issue is whether monetary policy is conducted in a period-by-period fashion—that is, as a sequence of unrelated decisions—or instead in a "rule-based" manner that views policy as an ongoing process. To explore the nature of this distinction, let us suppose that in either case policy is conducted so as to be optimal or "best" in relation to current economic conditions. The first way of proceeding is for the central bank to respond optimally to today's conditions, treating past conditions (and expectations formed in the past) as unalterable and therefore irrelevant. Also, the central bank recognizes that tomorrow it will do the same; it will optimize anew, treating today's conditions and expectations as irrelevant for decisions taken tomorrow. This is the standard

<sup>3</sup>Two of his many influential statements are Friedman (1960, 1968).

<sup>4</sup>Barro and Gordon (1983) established the terminology that distinguishes activist from nonactivist policy and rules from discretion.

<sup>5</sup>See, for example, Kohn (2004) in his comment on a recent conference paper by Goodfriend (2004).

way, developed by engineers and applied mathematicians, of conducting “optimal control analysis.” It represents, to academic monetary economists, policymaking under a regime of “discretion.”

Now suppose, entirely realistically, that the economy’s agents (households and firms) are forward looking: their supply and demand decisions taken today depend on their expectations about future conditions. Then tomorrow’s conditions will depend on today’s expectations. But that implies that today’s conditions have been influenced by yesterday’s expectations. So a second way of optimizing is one that takes account of the effect that each day’s expectations have on the following day’s conditions by treating policy as an ongoing process, perhaps designing that process optimally. This is the type of procedure that academics refer to as rule-based policymaking. It turns out, moreover, that in almost all cases the average performance of the economy, as represented by models developed by central banks as well as academics, is superior when policy is of this second type.<sup>6</sup> This is why academic economists favor monetary policy based on rules, rather than discretion.

It might be thought that adoption of a rule-based policy involves a once-and-forever choice of the contingency plan (i.e., rule), which would preclude the possibility of adjustments resulting from improved understanding of how the economy operates (i.e., an improved model) or altered policy preferences. But that is not the case. The academic concept of rule-based policymaking does not require that the rule never be altered. Rather, the process can be viewed as one that permits revision of the contingency plan, such as the Taylor Rule, that relates instrument settings to current economic conditions. There just needs to be a systematic way in which the revision is conducted and, in addition, the updating process must be one such that the rule is chosen in a “timeless manner”—that is, in a manner that does not seek to exploit the conditions currently prevailing.<sup>7</sup> Otherwise, this procedure would degenerate into a version of discretionary policymaking. Note that a rule resulting from such a process can, and normally will, call for policy responses to current conditions. What the timeless stipulation requires is that the rule itself, intended to be in effect until a new understanding of the economy or of policymaker preferences is obtained, be designed in a manner that gives no

<sup>6</sup>This point was originally developed by Kydland and Prescott (1977) and Barro and Gordon (1983). Important recent extensions were introduced by Woodford (1999) and have been explored quantitatively by McCallum and Nelson (2000).

<sup>7</sup>This is a rather recent development, due primarily to Woodford (1999).

special consideration to conditions that happen to prevail at the date at which the rule is designed or put into effect.

A brief summary of the forgoing, expressed in the words of Woodford's treatise (2003: 24), is as follows:

Rule-based policymaking in this sense avoids the sorts of rigidity that are often associated with commitment to a “rule” and that probably account for much of the resistance that central bankers often display toward the concept of a policy rule. A commitment to rule-based policymaking does not preclude taking account of all of the information, from whatever sources, that the central bank may have about current economic conditions.... Nor does it preclude changing the form of the policy rule when the bank's view of the monetary transmission changes.... Hence it allows the sort of flexibility that is often associated with the term “discretion,” while at the same time eliminating the systematic biases that follow from policy analysis that naively applies [period-by-period optimization].

We see then that rule-based policymaking can, unlike discretionary policymaking, take proper account of the public's expectations. It is necessary, however, that policy be regarded and designed as an ongoing process involving some commitment, not just a sequence of isolated choices. This is what is meant by academics as policymaking according to a rule.

## Implications for Communication

What are the implications of these two types of policymaking, discretionary or rule-based, for central bank communication with the public? In the latter case, the central bank has an ongoing process that it can explain (presumably in simplified terms) to the public, in one of two ways. It can describe clearly its objective function—with respect to which optimizing calculations are made—and its current model of the economy, and explain that it makes decisions in a rule-based manner. Or it can more simply describe the contingency plan (rule) that it is currently using to implement policy—that is, the formula that relates instrument (e.g., Fed funds rate) settings to economic conditions (e.g., inflation and unemployment).<sup>8</sup> In fact, it may not be necessary for the central bank to be overly explicit in its explanation and announcements. If, for example, the Fed behaves consistently in this rule-based manner, rational private agents will come to under-

<sup>8</sup>This rule need not be designed to be optimal with respect to any single model. Instead, it could be a compromise rule that performs reasonably well in a number of different models, which together reflect the central bank's uncertainty about the workings of the economy.

stand the way in which it takes policy actions. Thus, with rule-based policymaking, there is every possibility that the public will understand monetary policy and be able to make more informed decisions. Moreover, there is scope for the central bank to indicate that its views about the economy have changed, as seemed to be the case a few years ago with the Fed's estimate of average productivity growth. But the communication strategy would be focused on the relevant component of the policy *process*, not on values of specific variables forecast for the near future.

Now consider the other possibility, namely, that policy is made on a period-by-period basis. In this case there is no ongoing process to describe; just an expressed intention that in each period the central bank will make the optimal decision, ignoring conditions from the past and—knowing that it will do the same in the future—making no commitment about the future. Again it would be useful for the public to know about the central bank's objectives and its understanding of the economy (its model). But there is really nothing else to tell the public, given that policy is being formed on a discretionary, period-by-period basis.

From the October 27, 2003, article by Ip (2003b), it seems that recently the Fed has been trying to influence the economy by making statements, rather than by taking actions. Specifically, on September 16 the FOMC held a special meeting—its first in many years—whose purpose was to discuss issues regarding communication with the public. Now, if the Fed were telling the public something about the target inflation rate—that is, something about its objectives—that could be helpful. It would also be useful if the Fed discussed its model of the economy—that is, its understanding about how the economy works. But to suggest that the Fed has some inclination to keep the funds rate at 1 percent for some unspecified length of time seems rather pointless, especially in a policy regime in which there is no promise of policy continuity—just a vague and unstated promise that the Fed will do whatever is best at the next Federal Open Market Committee meeting, regardless of what it decides and says now.

The absence of rule-based policymaking means the absence of any systematic process that the public can understand and use as the basis for its expectations about future policy. The Fed apparently sees communication as a device for affecting expectations, but rational private agents form expectations on the basis of their understanding of the process by which the central bank actually conducts policy. If the central bank fails to adopt a process involving rule-based policymaking—that is, a commitment to some clearly stated objectives—its attempts to influence expectations are unlikely to be productive.

If the Fed wishes to transmit genuine information, as distinct from attempts to persuade, it might usefully begin by specifying explicitly its target rate of inflation—that is, the inflation rate that it seeks to achieve on average over (say) the next decade. That would obviously require designation of a particular price index in terms of which to express the inflation rate. The Fed could also specify its target concept and value for unemployment or some other measure of real aggregative economic activity, and the relative weights that it assigns to temporary departures from target for this measure and for inflation.<sup>9</sup> Then it could move on to explain its views on the macroeconomic workings of the economy. This might be done by means of a regular publication, possibly but not necessarily entitled “Inflation Report.” As matters now stand, the Fed conveys less of this type of information than do many of the world’s leading central banks.

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<sup>9</sup>A weight of zero for the measure of real activity would be possible.

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