Improving Monetary Policy by Adopting a Simple Rule

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Monetary theory as well as monetary practice over the past few decades suggest that economic outcomes in our economy are better when monetary policy is systematic and respects the importance of maintaining price stability.[1] Despite broad agreement of the benefits of systematic policy, the Fed continues to set policy on a meeting-by-meeting discretionary basis. This article examines how policy can be improved by replacing discretion with a transparent process of selecting and periodically adapting a simple policy rule.

The Case for a Simple Rule

The Fed's decision to adopt a precise quantitative definition of price stability in January 2012 was an important step in the right direction. With the adoption of an inflation target—2 percent, measured by the PCE index—in its *Statement on Longer-Run Goals and Monetary Policy Strategy* (Federal Reserve Board 2012), the Fed can facilitate well-anchored inflation expectations in line with price stability and can be held accountable over time more easily.

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[1]See Taylor and Williams (2011) for a comprehensive review of the literature on policy rules.

However additional progress is required. The Fed's current policy framework places too much emphasis on meeting-by-meeting discretion and is not sufficiently systematic to be in line with best policy practice. This is particularly problematic because of the Fed's so-called dual mandate—to achieve simultaneously maximum employment and price stability.

It is well known that the mandate of the Federal Reserve can create difficulties for the institution when tightening policy is required to keep inflation at bay. The combination of meeting-by-meeting discretion and multiple conflicting goals makes the Fed vulnerable to all the pitfalls that monetary theory and history teach us are associated with the absence of systematic policy. This can be corrected if the Fed adopts and communicates a simple policy rule that it can then use as a guide for setting monetary policy. Adopting an appropriate simple rule would allow the Fed to respond in a countercyclical fashion to economic developments while protecting price stability over time.[2]

Countering Key Arguments against Rules

Unfortunately, the Fed has not shown the willingness to move in that direction and continues to prefer to operate with meeting-by-meeting discretion. In recent speeches, Fed Chair Yellen and Vice Chair Fischer have presented a case *against* monetary rules (Fischer 2017a, 2017b; Yellen 2017). It is instructive to examine the key arguments presented against rules and provide counterarguments to make progress in this policy debate.

Perhaps the most common argument against monetary rules is that discretion allows greater flexibility to take into account uncertainty. It is certainly important to acknowledge uncertainty. Policymakers face numerous dimensions of uncertainty. Our understanding of how the macro economy works is incomplete. Estimated macroeconomic models are imperfect, and often competing models with quite different policy implications may be equally plausible. Key concepts that would have been very useful for policy, if they could be measured accurately in real-time (e.g., the natural rate of interest), are in fact unknown.

[2]See Orphanides (2015) for a more detailed exposition.

The presence of uncertainty, however, cannot serve as a valid argument for defending discretionary policy. Indeed, uncertainty raises the potential costs of discretion as it makes it harder to understand how large a policy deviation may be from what would have been the desirable systematic response to a shock.

The reasons why systematic policy is preferable to discretion are no less important under uncertainty. Consider dynamic inconsistency, one of the major policy problems associated with discretionary policy that the adoption of a rule solves. When policy does not follow a rule, households and businesses cannot trust that the policymaker will follow through with any policy that was communicated in the past, even if nothing has changed in the economy. Under discretion, the policymaker has the incentive to deviate from earlier plans and households and businesses must adapt their behavior to protect against these future discretionary decisions. Dynamic inconsistency makes everyone worse off when policy is set under discretion. Dynamic inconsistency is as much a feature of the macroeconomic policy problem under uncertainty about the structure of the economy as it is when, for simplicity, we assume this uncertainty away.

Consider the issues associated with the formation of expectations, most importantly about inflation. A major advantage of monetary rules over discretion is that when the Fed is systematic and follows policy based on a rule, financial market participants, households, and businesses can better understand what the Fed is doing and take that into account in forming expectations. Again, this is the case regardless of whether we assume perfect knowledge about the structure of the economy or acknowledge imperfect knowledge. Systematic policy is even more important when the economy is buffeted by uncertain and potentially destabilizing shocks: when policy follows a well-designed rule, inflation expectations can remain well-anchored, which in turn helps maintain stability both in prices and in the real economy.

Uncertainty is also invoked in another way that is important to address and often used as an excuse to promote discretionary policy. It is *correctly* noted by advocates of discretionary policy that since our knowledge about the structure of the economy is incomplete and our understanding of this structure evolves over time, no simple fixed and immutable monetary rule can possibly be

best at all times. Hence, it is argued, it is best for policy to remain discretionary.

The Taylor rule can be used as an example. Some versions of the Taylor rule state that policy should be set with the implicit assumption that the natural rate of interest is constant. The classic Taylor rule, for example, has embedded in it the assumption that the natural rate of interest equals 2 percent. If policy is set in accordance with this version of the Taylor rule and the wrong assessment of the natural rate of interest, policy would be systematically too easy or too tight, leading to inferior economic outcomes. Thus, it is argued, discretion is better.

This argument, however, is not right. What it suggests is that care is needed in selecting a policy rule that properly accounts for uncertainty, including about the natural rate of interest. Furthermore, it suggests that a simple policy rule should not always be seen as fixed and immutable. Fixed and immutable rules can indeed be problematic if they cannot be adapted as our understanding of the economy evolves.[3]

As our knowledge improves, we must reevaluate the simple rules-of-thumb embedded in our models and embrace modifications suggested by new analysis. This ought to be the case both for those who argue in favor of formulating policy in a systematic manner and for those who prefer meeting-by-meeting discretion.

For this reason, it is important to describe more precisely a process for selecting a rule that ensures that policy is systematic. To account for our evolving understanding of the economy, the Fed could adopt a framework that relies on a simple policy rule that is subject to periodic reviews and adaptation.

Selecting a Robust Rule

The Fed could select a rule following a rigorous evaluation process that ensures robustness, taking into account all the dimensions of

[3]Adaptation is required of virtually any rule to avoid systematic errors. This includes interest rate rules and rules regulating the growth rate of the money supply. For example, *k*-percent money-growth rules require estimates of trend velocity and potential output growth to deliver a 2 percent inflation goal. With no drift in velocity a *k*-percent rule would suggest 4 percent money growth if potential output growth is believed to be 2 percent but only 3 percent money growth if potential output growth is believed to be 1 percent.

uncertainty that can be incorporated into macroeconometric policy evaluation. The evaluation process should include uncertainty about natural rates, about the structure of the economy, about expectations formation, and so forth.

The Fed could communicate its selected rule, as part of an expanded and more detailed *Statement on Longer-Run Goals and Monetary Policy Strategy*. Adding the Fed's monetary rule to this statement would complete it by actually providing the Fed's policy strategy, which is absent from the current meeting-by-meeting discretionary framework.

It is important to acknowledge that setting policy following a monetary rule is a living process that requires periodic review and adaptation. This would allow the Fed the flexibility to account for and adapt to the evolving understanding of the economy.

The Fed could publish an evaluation of its rule on an annual basis and adapt its rule, if needed. Updates to the Fed's rule could be presented with the annual revision of the *Statement on Longer-Run Goals and Monetary Policy Strategy* that the Fed has published each January since 2012.

Replacing the meeting-by-meeting discretion with a transparent process of selecting and periodically adapting a simple and robust policy rule would ensure that monetary policy is systematic and contributes to social welfare over time while also retaining the flexibility to account for the evolution of the economic environment and of our knowledge. To ensure transparency and accountability, the Fed should communicate its preferred rule with sufficient detail so that an outside observer could track policy using incoming information and data without additional input from the Fed. The detail required would depend on the selected rule. For example, if the rule's implementation required use of unobserved concepts that evolve over time, such as the natural rate of interest, the methodology for arriving at the pertinent estimates should also be specified in advance to make the rule meaningful and avoid discretion.

The framework just described outlines how the Fed could adopt a monetary rule and maintain systematic policy in a manner that addresses the key concerns advanced when a case against monetary rules is argued. It may be noted that congressional legislation could guide the Fed in this direction. For example, the Federal Oversight Reform and Modernization (FORM) Act that was introduced in

Congress and passed by the House in 2015, includes a provision for a Directive Policy Rule which is developed by the FOMC to provide the basis for the Open Market Operations Directive.

Indeed, as the FORM Act implies, the Fed is best placed to select the simple rule that should guide its systematic monetary policy. However, legislation is not necessary for the Fed to adopt a simple rule. The Fed could embrace this improvement on its own, within its current mandate. No change in the Federal Reserve Act is needed for the Fed to include a simple policy rule in its annual *Statement on Longer-Run Goals and Monetary Policy Strategy*. The improvement could be seen as an added step, building on the improvement that started with the adoption of an explicit inflation target in 2012, which did not require a change in the Federal Reserve Act.

Conclusion

I will close by recounting a recent exchange I had with Vice Chair Fischer on this matter. Professor Stanley Fischer, who was one of my teachers at MIT, has been an active participant in the rules versus discretion debate for many decades. In the early 1970s, together with Phillip Cooper, he was among the first to do econometric policy evaluation of monetary rules in competing models such as the FRB-MIT-Penn Model and the St Louis Monetarist model, which were used at the time for policy analysis.[4] In 1990, he published an influential review of the literature, presenting the rules versus discretion debate that was then "at least 150 years old" (Fischer 1990: 1181). At that time, the research appeared inconclusive and Fischer suggested that a new generation of models needed to be developed. However, in reflecting about what could guide monetary policy in the meantime, he also suggested that "it might

[4]These contributions include Cooper and Fischer (1972a, 1972b, 1974) and Fischer and Cooper (1973). The research program in these papers involved comparative evaluations of active countercyclical monetary rules that were more elaborate than many of the simple Taylor-type rules that have been advocated more recently.

be possible to find simple feedback rules that perform well in a variety of models, and to recommend them as a basis for monetary policy" (p. 1169).

Last February, Vice Chair Fischer delivered a speech arguing in favor of discretion over monetary rules (Fischer 2017a). For the title, he used part of a famous quote by Paul Samuelson highlighting the value of judgement and models for policy analysis. Samuelson said, "I'd rather have Bob Solow than an econometric model, but I'd rather have Bob Solow with an econometric model than without one." While I fully subscribe both to the use of models and to the value of judgment, I thought that the case presented against rules was incomplete. I wrote an email to the vice chair with the subject line: "I'd rather have Bob Solow with a model and a rule (following a careful evaluation process)" and went on to describe how the Fed could go about selecting a policy rule, relying on the superb research of Fed system staff.

The vice chair responded with a subsequent speech in March (Fischer 2017b). While acknowledging how a careful evaluation process could proceed, he appeared to remain unconvinced and noted, "However, I tend to agree with John Taylor and my Fed colleague John Williams when they write that 'the search for better and more robust policy rules is never done.'"[5]

Once again, I find myself in agreement with the quote but not with the suggested conclusion. It is indeed true that the search for better rules is never done. It is also true that our knowledge will always remain imperfect. But is this sufficient to justify the Fed's emphasis on meeting-by-meeting discretion? Perhaps we should acknowledge our imperfect knowledge and promote systematic policy with a robust rule that reflects our current state of knowledge. We could also accommodate potential amendments by embracing a transparent process of periodically adapting the simple and robust policy rule selected to guide monetary policy.[6]

[5]The quote is from the conclusion of Taylor and Williams (2011).

[6]Indeed, such a process would heed the advice: "Prudence . . . suggests that the rule include procedures for its own amendment" (Fischer 1990: 1169).

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