Credible Commitments and Monetary Policy After the Crisis

Swiss National Bank Monetary Policy Conference

Zurich, Switzerland

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FEDERAL RESERVE BANK
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Introduction

Good evening. I want to thank the Swiss National Bank and conference organizers for the invitation to speak here tonight. I spent a number of years visiting and teaching at the bank's Study Center Gerzensee outside of Bern, and it is nice to return to Switzerland and visit old acquaintances, not to mention some former students.

Unfortunately, times have changed since those good old days. The challenges facing monetary policymakers and theorists alike have become more complex. Our theoretical models did not prepare us sufficiently for the financial crisis nor do they give us a clear road map for the future. The papers at this conference, and others like it, are beginning to fill that void. Nonetheless, I think we have a ways to go.

Tonight I hope to contribute to the discussion by focusing on some key issues that loom large for policymaking after the crisis, yet which are not adequately addressed in our economic models. Before I begin, let me note that these are my own views and not necessarily those of the Federal Reserve System or the Federal Open Market Committee (FOMC).

To meet the challenges posed by the economic crisis, Federal Reserve policymakers developed and deployed some innovative policy tools, including large-scale asset purchases, which altered the size and composition of the Fed's balance sheet. These tools have created their own significant challenges for the conduct of monetary policy in

the post-crisis era. In particular, I believe that the wider range of policy options now available to policymakers make it increasingly difficult for them to credibly commit to a particular policy course. This is problematic because at least since the late 1970s, we have known that monetary policy made under commitment will yield better economic outcomes than a regime that allows policymakers wide discretion. When policymakers have unconstrained flexibility, their policies will tend to have an inflation bias. In addition, the new tools may lead the central bank to take more risk onto its balance sheet at taxpayers' expense. If we are to achieve our policy objectives, we should therefore consider what types of mechanisms could limit the discretion of policymakers in using these new tools and thereby increase commitment to a systematic policy rule.

Our leading macroeconomic models are not fully up to the task because they assume that policymakers can credibly commit to a policy and that moral hazard is not present. Neither of these assumptions seems particularly appropriate in the current environment. However, the academic literature does offer some insights into how policymaking in the post-crisis world might be designed to capture the benefits of credible commitment.

Commitment versus Discretion

Although it's probably not necessary for this audience, let me begin by briefly reviewing a few of the lessons of the policy commitment literature. At least since the work of Henry Simons, economists have discussed the benefits of rules over discretion in the conduct of policymaking.[1] The modern approach to this debate is grounded in the work of Finn Kydland and Ed Prescott.[2] They define a policy that determines today what actions will be taken at a future date as *time consistent* if those actions are, in fact, taken at that future date. Assuming private agents and policymakers act rationally, time

[1] See Simons (1936).

[2] See Kydland and Prescott (1977).

inconsistency arises when policymakers have incentives to deviate from a previously announced policy. Time inconsistency usually arises when the design of policy institutions, intentionally or not, fails to constrain discretionary behavior by policymakers. It is not that policymakers' preferences have changed over time, leading them to want to deviate from a pre-announced policy path.[3] And it is not that policymakers do not want to implement policies that maximize the current and future welfare of the private sector.[4] They do, but the temptation may be too great to renege on the pre-announced policy and pursue policies that deliver temporary economic benefits that may be inconsistent with longer-run goals. In the context of monetary policy, this time inconsistency typically results in higher than desired inflation.

Over the past three decades, economists have developed an abundance of theory and empirical evidence that describes how time-inconsistency problems can be mitigated if policymakers commit to systematic behavior that mimics rule-like outcomes.[5] For a number of reasons, many of our economic models merely assume perfect commitment. But how do real-world policymakers credibly commit to behave in such a systematic fashion? Full commitment is not possible in a democracy as it is exceptionally difficult to tie the hands of future governments or policymakers. Are there institutional arrangements or other mechanisms that make it easier for policymakers to follow through on time-consistent policies to achieve long-run goals? Can such institutional arrangements make it more difficult for policymakers to deviate from systematic behavior? Given the crisis and the new policy tools developed to combat it, how can we enhance our ability to make credible commitments to limit or constrain discretionary behavior?

[3] See the seminal study by Strotz (1956).

[4] For a recent contribution to the literature on Ramsey policies in macro models, see Schmitt-Grohé and Uribe (2004).

[5] See, for example, Plosser (2008) or Plosser (2010a).

Traditional Monetary Policy and Commitment Mechanisms

There are several ways in which central banks and governments limit discretion and encourage a more credible commitment to the traditional monetary policy process. In my view, central bank independence from short-term political pressures is an important way to help promote more time-consistent policies. Allowing monetary policy decisions to have some degree of insulation from those pressures can help support (although not fully ensure) a longer-run focus and thus a more time-consistent approach to policy.

Some central banks, such as the European Central Bank (ECB), have a form of independence imbedded in their statutory or constitutional framework. In the U.S., Congress has delegated the conduct of monetary policy to the Federal Reserve and the FOMC and granted a degree of independence for policymakers to pursue the objectives assigned by Congress. Yet we can see in this crisis that the discretionary actions taken by the Fed have given some lawmakers reason to want to further limit the Fed's discretionary authority, perhaps change its mission, or even exert more political control over its decisions. This could mean a loss of independence and a more politicized central bank, which would weaken the Fed's ability to make credible policy commitments.

Having a single mandate for price stability, like the ECB's, can make it easier for central banks to make credible policy commitments. Inflation targeting is another way to increase the credibility of monetary policy. Articulating an explicit inflation target and committing to keeping inflation near that target over some specified time period is a form of pre-commitment.

Reputation has also played a role in enhancing credibility. Some central banks, such as the Bundesbank and the Swiss National Bank, have established a long history of

maintaining stable inflation. These central banks have earned credibility through actions that achieved their policy goals.

The Fed often gets the credit for the decline in U.S. inflation in the 1980s because it rebuilt its anti-inflation reputation under Chairman Paul Volcker. This episode has been interpreted by Ken Rogoff, among others, as an example in which central bank reputation was used to overcome the lack of commitment technologies to produce low inflation.[6] But reputations are fragile unless supported by actual achievement.

Thus, there are several mechanisms in use that help mitigate – although not completely solve – the time-inconsistency problems in traditional monetary policymaking. However, the economic crisis has made new policy tools available to the Fed. These tools have expanded the ability of the Fed to engage in discretionary policymaking. Yet without greater attention by policymakers and academics to additional commitment mechanisms that constrain discretionary use of these creative new tools, the use of these tools may undermine the Fed's credibility. Let's review some of these tools and possible ways to lessen discretion and promote a more credible, systematic approach to their use.

New Policy Tools and Commitment Mechanisms

The most prominent new tool is the use of the Fed's balance sheet. Prior to the crisis, the size of the Fed's balance sheet was primarily a byproduct of the Fed's practice of targeting the federal funds rate. Assets and liabilities would rise and fall as needed to achieve the target. During the crisis, several actions greatly expanded the size of the balance sheet and altered its composition.

[6] See the seminal study on the impact of reputation in monetary policy games by Rogoff (1985).

13(3) Lending

First, the breakdown in short-term credit markets led the Fed to exercise its authority under section 13(3) of the Federal Reserve Act to lend directly to "corporations, partnerships and individuals" under "unusual and exigent circumstances." This power allowed the direct purchase or "discounting" of risky private securities. The magnitude of these purchases was so large that the Fed was unable to offset them with the sale of government securities and, consequently, the balance sheet expanded. [7]

Section 13(3) lending was established as a pure discretionary tool – a complement to the central bank's role as lender of last resort. Until this crisis, this power had not been used since the Great Depression. So, the Fed had developed a reputation and thus a form of credible commitment not to use this discretionary tool, which held true even in periods of severe financial strain such as the savings and loan crisis, the failures of Enron and Worldcom, and the collapse of the NASDAQ with the bursting of the so-called tech bubble. That reputation has now been undermined. As a result, market participants now see such lending as more likely and will be tempted to urge the Fed to use the authority again. The use of such discretionary tools without some form of credible commitment that defines and limits their use in the future can and will distort private incentives, creating moral hazard that will cause problems in the future, and undermining the credibility of the Fed.[8]

The Dodd-Frank Wall Street Reform and Consumer Protection Act set limits on the Fed's use of section 13(3), partly in recognition of the moral hazard it has created. In particular, Dodd-Frank allows the Board, in consultation with the Treasury, to provide liquidity to the financial system, and not to aid a failing financial firm or company. This limits discretion to lend to a single individual, partnerships, or corporations. These

[7] For a previous discussion of these issues, see Plosser (2010b).

[8] See Plosser (2009).

reforms are good first steps toward constraining discretion under section 13(3), but I think more is needed. As a slightly stronger commitment, the Board of Governors could announce that, in the future, it will not use its discretionary powers of section 13(3) without obtaining prior public support from the congressional leadership along with the Treasury. Such a proposal involves the current Board of Governors imposing constraints on the future Board of Governors, which is a theme that runs throughout the time-consistency literature: designing constraints that lead future policymakers to minimize the use of discretion to achieve policy goals. Of course, a future Board of Governors might choose to relax this constraint, but it would need to take a proactive decision to do so.

A stronger constraint would be for the Fed to refrain from such lending unless it was requested to do so by the Treasury and Congress. In the extreme case, the Federal Reserve could ask that section 13(3) be stricken from the Federal Reserve Act entirely. In each of these options, discretion on the part of the Fed becomes increasingly constrained. Yet, discretion is shifted to the Treasury and Congress, which is arguably where it should be, since such lending in a financial crisis is a form of fiscal policy. That may be good for the Fed's credibility, but it doesn't really solve the broader problem of co-mingling monetary policy with fiscal policy.[9]

I have argued that one approach to separating monetary policy from fiscal policy is to create a new Fed-Treasury Accord that requires the Fed to hold only U.S. Treasury securities and discount window loans on its balance sheet. If the Treasury asks the Fed to purchase other assets in an emergency, it would also agree to swap Treasuries for

[9] Of course, when "unusual and exigent" circumstances no longer exist, 13(3) lending must be withdrawn and the balance sheet would then shrink unless additional actions were taken. This makes this lending somewhat constrained as well, but "unusual and exigent" is not a well-defined concept and the threshold could easily devolve downward under political and market pressures.

those assets within a fixed period of time. This would help the Fed avoid engaging in credit allocations or other sorts of fiscal policies. [10]

Asset Purchases

The second significant change in the management of the Fed's balance sheet occurred after the FOMC had brought its policy rate down to essentially zero and began to expand its balance sheet by purchasing longer-term securities – principally government agency mortgage-backed securities (MBS). This represented a significant departure from past practice in that it lengthened the duration of the portfolio and targeted the housing sector. Prior to this intervention, the Fed had always held predominantly short-term Treasuries in its portfolio.

The agency MBS purchased by the Fed may not be perceived as carrying much credit risk, since they are at least implicitly guaranteed by the U.S. government. However, the duration of the portfolio is now exposed to a great deal more interest rate risk. More important, the composition of the portfolio has changed for the explicit purpose of supporting a particular sector of the economy – housing – which breaks entirely new ground. The public and market participants may believe that the Fed can and will use its purchases to pursue other sorts of credit policies than has been its practice in the past. This opens the door to a broader array of discretionary actions that can undermine the ability to conduct time-consistent policy going forward. Yet policymakers have not yet articulated the nature of the systematic policy or rule-like behavior that will constrain discretion and govern use of this balance sheet tool.[11]

[10] The U.S. Treasury has committed to absorbing the Maiden Lane facilities on the Fed's balance sheet according to the Treasury-Fed joint statement, "The Role of the Federal Reserve in Preserving Financial and Monetary Stability," of March 23, 2009. However, this action has not yet been implemented and seems all but forgotten.

[11] The Treasury-Fed joint statement of March 23, 2009 indicated that the actions of the Federal Reserve should not allocate credit to narrowly defined sectors or classes of borrowers and that government decisions to influence the allocation of credit are the province of the fiscal authorities. It is not clear that this constitutes much in the way of a binding or credible commitment, given that other parts of the

One strategy is to develop guidelines for when the FOMC might choose to purchase non-Treasury assets. A stronger way to limit discretion would be to explicitly require that the Fed hold only Treasuries on its balance sheet. This would be part of the Fed-Treasury Accord I suggested earlier to limit discretion.

As I have argued in past speeches, the Fed will need to shrink the size of its balance sheet toward pre-crisis levels and return its composition to all Treasuries.[12] I have some concerns that holding securities with risky payoffs on the Fed's balance sheet creates the potential for moral hazard. If market participants believe that the Fed is immune to the poor payoffs from these assets and the Fed's plans for these assets is not clear, the economics of moral hazard suggest that the central bank may have incentives to take on excessive risks at the expense of taxpayers.

At the moment, the time-consistency literature is mostly silent about the extent to which central bank balance-sheet policies can induce moral hazard. Perhaps, we can learn from research showing how current monetary policy can duplicate the outcome of policy rules by using the current maturity structure of government debt to limit the incentives future policymakers have to engage in inflationary policies.[13] Whether one should conclude from this research that the FOMC should explicitly commit to the timing of a permanent shift to a pure Treasuries balance sheet, as some of my FOMC colleagues have argued, is a question that will have to be confronted in the future.

Interest on Reserves

This brings me to the last example of new practices for which we need to consider appropriate commitment technologies. Congress and the President gave authority to

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statement have not been implemented.

[12] See Plosser (2010a).

[13] See Persson, Persson, and Svensson (1994).

the Board of Governors to pay interest on reserves (IOR) in October 2008.[14] Paying IOR is another tool that has given greater discretion to the Fed, yet greater discretion is not without cost. A central bank may be motivated to pay IOR to overcome restrictions that hinder efficiency in financial markets. Yet, many overlook that paying IOR ties together the central bank's balance sheet and the government's budget constraint, since the interest is financed by government revenues.[15] This may come at the cost of central bank independence.

There are two proposed mechanisms for implementing IOR, both of which can impinge on central bank independence. One IOR operating mechanism is the floor system, in which the central bank sets its policy rate equal to the IOR. Under this framework, the central bank supplies enough reserves so that the banking system faces a perfectly elastic supply schedule of reserves.[16] Under such a floor system, the Fed's balance sheet is divorced from interest rate policy because an unlimited amount of reserves are available at the IOR-policy rate. Some have described the floor system as the "big footprint" central bank because its balance sheet can be large without directly affecting the monetary policy instrument, the IOR. Some think that this approach has advantages because it would enable the central bank to provide liquidity in a financial crisis without necessarily altering the stance of monetary policy.

The other IOR operating mechanism is the corridor system, in which the central bank's policy rate is a market rate that is always between the rate charged at the discount window and the IOR. The corridor system does impose constraints on the size of the balance sheet because the supply of reserves would be set at a level that achieves the targeted interest rate. Thus, this might be called the "small footprint" central bank.

[14] The Board of Governors has discretion to set IOR and has done so in consultation with the FOMC.

[15] These ideas are discussed in Friedman (1960) and reviewed by Sargent (2010).

[16] These IOR operating mechanisms are reviewed in Goodfriend (2002) and in Keister, Martin, and McAndrews (2008).

There are many other issues surrounding these different operating procedures, but I want to focus on the implications for balance-sheet management. My view is that, without explicit constraints on the size of the balance sheet, the Fed runs the risk of being pressured to use its balance sheet to engage in policies whose goals have nothing to do with monetary policy. While the "big footprint" Fed may have some advantages in a severe crisis, it also carries potential costs in more normal times. Since crises don't happen very often, my preferred choice of an operating regime is the one that imposes some constraint on the size of the balance sheet to give the central bank a mechanism for saying no to fiscal authorities who may want to use the central bank's balance sheet to achieve other objectives. If the balance sheet is perceived as a "slack" variable for policymakers, someone will want to put it to use. That pressure could serve to put the central bank's independence and its credibility at risk. As Chairman Bernanke recently noted, the Fed and monetary policy cannot solve every economic problem.[17]

Conclusion

Since the founding of the Federal Reserve System in 1913, Congress has delegated authority for monetary policy to the Fed. However, central bank independence is no guarantee that time-inconsistency problems that are inherent in monetary policymaking will be mitigated without explicit rules and constraints. There is ample evidence that having the ability to make credible commitments that constrain current and future policymakers to conduct systematic policy and limit discretionary behavior yields better economic outcomes over the long run.

In combating the economic crisis, the Fed and other central banks have been given considerable credit for their use of some innovative policy tools. But economists neither inside nor outside the central bank have developed a systematic approach to conducting policy with these new tools and the commitment mechanisms necessary to "enforce"

[17] See Bernanke (2010).

this systematic approach. I have offered some thoughts on the risks that the new tools pose for credible policymaking going forward and some ideas on mechanisms to limit discretionary use of the Fed's balance sheet. I believe these issues are of profound importance for the future and should be at the top of monetary policymakers' agenda in the post-crisis world.

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