Preface

John H. Cochrane and John B. Taylor

At the time we were organizing this conference, most of the voluminous commentary about the Federal Reserve System centered on what decisions it should take. Should the Fed raise interest rates? How soon? How much?

We thought the conference could make more progress by focusing on a different and deeper set of questions. *How* should the Fed make decisions? How should the Fed govern its internal decision-making processes? How should Congress, from which the Fed ultimately receives its authority, oversee the Fed? Central bank independence is a great virtue, but independence in a democracy must come with clear limits and a limited scope of action. What should those limits be? What is the trade-off between greater Fed power and less Fed independence? How should Congress manage its fundamental oversight role? Several bills in Congress stipulate more rules-based policy and consequent accountability, along with deeper monetary reforms. Are these bills a good idea? How should they be structured?

The distinguished scholars and policymakers at the conference, whose contributions and commentary are represented in this conference volume, do not disappoint in their analysis of these and related questions.

Paul Tucker's opening paper, "How Can Central Banks Deliver Credible Commitment and be 'Emergency Institutions'?" leads off with a central conundrum: in general, people seem to want central banks to follow rule-based policy in normal times, but people expect banks to take a much more discretionary do-what-it-takes approach to stopping financial crises. Tucker asks if these two hats can be worn at once. He builds up to the basic conclusion: "LOLR [lender of last resort] liquidity reinsurance policy *can* be systematic, and *should* be framed within a regime," just as normal-times monetary policy should be so framed.

Tucker starts by thinking through the limits on the central bank's tools. Should the central bank, even in a crisis, be legally limited to traditional open market operations, exchanging reserves for short-term treasuries? Or should the central bank be free to purchase many different kinds of assets in crises? He notes the many restrictions, including central bank independence, that stand in the way of inflationary finance in normal times, but which may be inappropriate during crises.

Looking at the modern financial system, Tucker concludes that money, credit, and finance are not separable. He advocates an integrated money-credit constitution consisting of "inflation targeting plus a reserves requirement that increased with a bank's leverage plus a liquidity-reinsurance regime plus a resolution regime for bankrupt banks plus constraints on how the central bank is free to pursue its mandate."

Tucker goes on to think about what constraints and governance should apply to the central banks' lender-of-last-resort and liquidity-reinsurance functions. He starts by noting the current status: "nearly all central banks . . . stand ready to lend against a wide variety of collateral, including portfolios of illiquid loans . . ." More contentious is whether central banks should "lend to non-banks or . . . act as a market-maker of last resort."

In this situation, bankers face large moral hazard and precommitment problems. Tucker points out that received wisdom says they should lend only to illiquid—not insolvent—firms, but in practice the two are hard to distinguish. He argues therefore that a "regime" is desirable vs. untrammeled discretion, and legislative constraints can overcome the large pre-commitment problem.

Tucker frames the issue within the broader question of what "emergency powers" are appropriate for any government. In practical terms, he approves of arrangements, such as in the Dodd-Frank Act, that allow the Fed to innovate beyond its customary or legislatively limited powers, after getting permission from the president and secretary of the treasury, a view echoed in slightly different form later in the conference by Charles Plosser.

Tucker goes on to consider the question of whether the central bank should be able to exceed its limits in perceived economic (rather than financial) emergencies—by, for example, buying stocks, mortgages, or government-guaranteed mortgage-backed securities in order to stimulate demand, as the Fed did—again concluding that some sort of regime is needed.

John Cochrane's discussion cheers the basic conclusion: untrammeled discretion in crises leads to unlimited moral hazard in the preceding boom. Cochrane emphasizes the pre-commitment problem, that "self-imposed rules, promises, guidance, and tradition are not enough." In the crisis, central bankers will bail out institutions and their creditors, support prices, and lend if they can; knowing that fact, people will take risks and fail to keep enough cash around, making the crisis worse and forcing the bankers to cave. Only legally binding limitations can stop the cycle.

Cochrane takes a dimmer view of current institutions in fulfilling Tucker's vision, opining that there is very little current constraint on central bank actions. He also criticizes the traditional Bagehot rules. Who cares if an institution is illiquid vs. insolvent? The central bank is not there to be a profitable hedge fund—it's there to save the economy. There is little obvious link between systemic danger (whatever that is) and the liquidity vs. solvency line.

Responding to Tucker's call for yet more thinking and research to make the current money-credit constitution work, Cochrane opines that an equity-financed banking system is a much more promising alternative to endless research.

A written record of the general discussion of Tucker's paper follows, with George Shultz's summary of the financial crisis being the highlight.

As with all of the general discussions throughout this book, the commentary is based on a recording made at the conference, from which a transcript was created. Participants then edited their comments for clarity following the conference.

The next paper, "Policy Rule Legislation in Practice," was presented at the conference by David Papell and is coauthored with Alex Nikolsko-Rzhevskyy and Ruxandra Prodan.

The paper carefully evaluates legislation, recently proposed in the US House and Senate, which would require the Fed to describe its monetary policy rule and, if and when the Fed changed or deviated from its rule, explain the reasons. The paper applies formal econometric methods to these legislative proposals. Papell, Nikolsko-Rzhevskyy, and Prodan consider several versions of the Taylor rule to see how often in the past monetary policy deviated from that rule, and thereby assess how often the Fed would have had to explain deviations from its own rule to Congress under the proposed legislation. Their analysis carefully uses real-time data, adheres to the data definitions in use historically, and offers several plausible variations.

All of the versions of the Taylor rule examined in the paper produce extended periods of substantial deviation, including the 1970s inflation (they find that policy was loose), the Volcker disinflation (they find that policy was tight), and in the early 2000s and 2010s. So, if the legislation had been in place starting in the early 1970s, if the Fed had chosen the Taylor rule back then, and if the legislation had not induced the Fed to alter its policy, the Fed would have had either to announce a new rule or to explain its deviations for substantial periods in the 1970s, early 1980s, and more recently.

Michael Dotsey leads a sharp discussion. Though the broad brush of when the Fed was in compliance with the rule is fairly robust, Dotsey notes that "how one measures the output gap, and which inflation rate is used in the rule" matter to whether the Fed is in compliance or not.

The biggest issue Dotsey raises is the difference between the Taylor rule with no lags which Taylor originally proposed (described as a reference rule in the proposed legislation), in which the funds rate depends on output and inflation only, and estimated Taylor rules that include the lagged funds rate and (less important quantitatively) lagged responses to inflation and output gaps. With lags, we obtain a very good fit throughout postwar history: "It is rare to find discrepancies greater than twenty basis points . . . " Dotsey adds that much theoretical literature recommends rules with inertial responses, i.e., lagged funds rates on the right-hand side.

A long and thoughtful general discussion of these ideas follows. Which kind of rule should be used: an "inertial" rule with lags or a simpler rule without lags? The inertial rule fits the data better, but largely says that the Fed should continue doing whatever it was doing, even if that was a mistake. It also fits so well that the Fed would likely never be in violation. Should a rule fit the data well, or is the whole point of legislation in fact to constrain the Fed to do things differently in the future than it has at some times in the past? If there are to be long-lasting deviations from the rule, should Congress get used to routine "explanations" of deviations from a rule? Or will the Fed just announce new "rules"?

John Taylor concludes the discussion, answering many of these questions by emphasizing that the bills envision the rule as a "strategy," not necessarily a mechanical formula. It would be the Fed's job to define and communicate its goals along with the strategy to achieve the goals.

Carl Walsh's contribution considers "Goals versus Rules as Central Bank Performance Measures."

Walsh takes on an issue that pervades much of the discussion in this book: If Congress holds the central bank to a rule, should it be an instrument rule, such as an interest rate rule, telling the Fed how to act? Or should it be a goal, such as an inflation target, setting a narrow objective for the central bank and accountability for that objective, but leaving the bank great discretion in how to achieve the objective?

The heart of Walsh's paper is an evaluation of goal-based vs. instrument-based rules in a simple model. Walsh assumes that the social welfare function is a weighted sum of squared deviations of output and inflation. The central bank's objective, however, adds shocks, so it tries to minimize the weighted sum of output and inflation from these shocked values. The shocks represent temporary political pressures to deviate from the regular rule. The economy follows a standard new-Keynesian intertemporal substitution relation, in which output depends on expected future output and the real interest rate, and a standard new-Keynesian forward-looking Phillips curve.

In this setting, Walsh is able analytically to characterize the social welfare of the resulting equilibrium. He models a rule as an additional term in the central bank's objective that prizes deviations from an inflation target or deviations of the funds rate from the recommended rule.

So which is better? Walsh finds that, in general, an optimal combination includes both an inflation target and a rule. The relative weight depends on the variances of shocks: cost shocks raise the weight on a rule, but demand shocks raise the weight on an inflation target.

In a more complex calibrated model, Walsh finds that "the definition of real activity used in the rule is crucial." A rule based on output deviations from potential receives no weight relative to an inflation target. But a rule based on the gap between output and its efficient level gets weight along with an inflation target.

Naturally, the comments and discussion about Walsh's analysis rage over just how to interpret these results, and which features of the rule vs. goal debate the model captures.

Andrew Levin, the lead discussant, notes that the model has i.i.d. shocks, considers only the discretionary solution (i.e., the Fed cannot commit to policies), and has no learning.

Levin points out that in this model the Fed can perfectly offset aggregate demand shocks but not aggregate supply shocks. As he explains, the inflation target is imperfect—it forces the central bank away from its preference shocks, but only toward desirable inflation, not output. He wonders whether adding an output target as well would restore this balance. Analytically, adding huge costs to deviations from inflation and output, the government could, in this model, make the central bank's objective equal to the social objective.

Similarly, Levin points out that the Taylor rule is imperfect here because the central bank can no longer respond to natural rate or aggregate demand shocks. Well, since these are observable in the model, why not just add them to the rule? The problem with models is that there is always an optimal policy, and then one must think why a simple rule is not just the optimal policy.

Levin continues to say that a large function of the rule is to communicate what the Fed is doing. This communication role is missed in the paper.

Next, Kevin Warsh presents "Institution Design: Deliberations, Decisions, and Committee Dynamics." He focuses on the eternally vexing question: How do you best structure a committee—like the Federal Open Market Committee, which sets interest rates—to make good decisions?

Warsh reviews a lengthy, interesting, and, to economists, largely unknown literature on committee decisions, especially how to foster a genuine deliberation and how to balance inquiry vs. advocacy. Anyone running a faculty meeting, take note.

Warsh then summarizes his conclusions from a comparison of the UK Monetary Policy Committee (MPC), which he was invited to evaluate, and the US Federal Open Market Committee (FOMC).

In Warsh's view, the MPC is set up in a way that is "favorable to genuine deliberation and sound decision-making." It is small and diverse. "Individual contributions can be identified and evaluated, and its members are encouraged to think for themselves."

The first day of an MPC meeting has a free-flowing and open debate, with healthy listening, deliberation, and changing of minds. The second day moves to "advocacy," in which members try to convince each other of the conclusions they have reached.

By contrast, the FOMC suffers "certain institutional aspects . . . which differ somewhat from best practice . . . " The FOMC is much larger: nineteen people convene in the discussion, with about sixty people in the room. Dissents are rare and the chair never loses a vote, in contrast with the UK, in which votes are seldom unanimous and the chair often loses.

Public transcripts, while seemingly useful for transparency, may have the unintended effect that "FOMC participants . . . voice less dissent in the meetings themselves, and [are] less willing to change policy positions over time." The Sunshine Act means that the "real" discussions happen in small groups centered around the chair. The resulting meetings consist of members giving carefully prepared set-piece speeches, in full advocacy mode from the start, and there is little true deliberation.

Peter Fisher, the lead discussant of Warsh's paper, stresses individual vs. group accountability, which covers many issues raised in the general discussion. As Fisher puts it, "I thought I understood the awkwardness of group accountability when more than once I saw the FOMC gravitate toward no one's first choice and virtually no one's second choice, and we ended up with third-best outcomes. But now I'm also worried about individual accountability of a pseudo-nature [speeches for the FOMC record], which I'm afraid is the regime we now have."

Fisher stresses that "effective decision-making bodies tend to practice individual input but collective accountability . . ." After the vote, people don't stress their dissents. He believes that we don't have that now. "The single most important output of monetary policy is the expected path of short-term interest rates, and yet the current FOMC feels free to allow every man and woman to have their own expected path."

Next is Michael Bordo's paper, "Some Historical Reflections on the Governance of the Federal Reserve." The Federal Reserve has a complex structure which has evolved through history. The United States has long distrusted a national central bank, appointed by the central government and close to the financial center, as is the case in many other countries. So the Fed in 1914 started with a degree of autonomy of the regional banks that is surprising even by today's standards. Furthermore, regional banks were owned by member banks and their governors were appointed by local directors. In the early years, regional banks actually conducted "their own monetary policies to influence economic conditions in their own districts." Bordo recounts many instances of regional vs. Board of Governors conflict.

Bordo then chronicles the shift of power from Reserve Banks to the Board of Governors. Most recently, the financial crisis was managed by the Board and the New York Fed, and the Dodd-Frank Act gives the Board great power as part of the Financial Stability Oversight Council. It also weakens the power of local boards to select regional bank chairs.

Bordo focuses on a major controversy, central to the theme of this book: Were the Federal Reserve's many failures primarily due to its governance structure or to mistakes in its understanding of how monetary policy works?

Bordo also recounts some of the history in which regional banks played important roles in developing new ideas, outside the

Washington–New York axis of power and occasional groupthink. In particular, he cites the monetarist influence from St. Louis in the 1960s and the recent concerns by regional presidents—including Jeffrey Lacker of Richmond, Charles Plosser of Philadelphia, Thomas Hoenig of Kansas City, and Richard Fisher of Dallas—over the use of credit policy, bailouts, and large-scale asset purchases.

Bordo concludes that "the federal/regional nature of the Fed is one of its great sources of strength" and that the "federal/regional structure . . . should be preserved."

Mary Karr's lead discussion emphasizes the question of "how best to retain independent voices." She warns that "structural reorganization" usually means "some further centralization of authority in Washington." She also emphasizes the deep question of whether the Fed's mistakes were "structural defects or mistakes in theory." She argues against the "myth that bankers control the Fed and the Fed was created by—and to benefit—bankers," while explaining the "complex scheme for the selection of Reserve Bank directors."

A long, insightful discussion on the value of the regional bank structure follows.

The conference volume closes with a "Panel on Independence, Accountability, and Transparency in Central Bank Governance" with Charles Plosser, George Shultz, and John Williams. Charles Plosser leads off. He first reminds us how important it is to have a "healthy degree of separation between government officials who are in charge of spending and those who are in charge of printing the money," which is the most essential part of good governance. He emphasizes that recent criticisms and the moves in Congress to rethink Fed governance are natural given how much the "Fed has pushed the envelope of traditional monetary policy," including bailouts, six years of zero interest rates, aggressive asset purchases, and purchases of mortgage-backed securities which constitute a credit allocation policy, properly part of fiscal policy.

So how can we balance authority, including independence, with accountability and constraints? Plosser argues, first, that the mandate should be narrower. He advocates price stability as the only mandate. Second, the Fed should be restricted in the type of assets it can buy or sell. And third, a more transparent communication of monetary policy strategy, "where rules can play a vital role," would help to ensure discipline and accountability.

Plosser thinks the public "has come to expect way too much from central banks" to solve "all manner of economic ills." In the end, the demand for constraints on Fed action must derive from the public and be represented in Congress.

Regarding Paul Tucker's conundrum—whether lender of last resort should be less limited and more discretionary—Plosser suggests that emergency lending and bailouts really are fiscal policy. Therefore, there should be a new accord between the Treasury and the Fed. The Treasury takes the responsibility for bailouts or asset purchases to enhance financial stability (ruefully noting, "however they want to define that term"). But the Treasury then asks the Fed to execute the policy.

George Shultz next reminds us that we need to restore a competent government, and trust in that competence. Limiting the purposes of an organization is a key to competence.

He sounds a warning against the siren song of transparency, noting that "the Fed speaks with about a dozen voices . . . people sound off all the time, and it's a little hard to figure out just what is the policy." Bottom line: the Fed, like Ted Williams (or Teddy Roosevelt) should talk less. This is a deep comment in an era when the Fed, under "forward guidance" and at the zero bound, does really little else than talk.

But Shultz reminds us that the administration must support Fed independence. Reagan supported the Fed's anti-inflation efforts, whereas other presidents undermined the Fed.

Last, but certainly not least, John Williams writes about the "independence dilemma," touching on many themes of the conference.

He describes the day's dilemma thus: "Successful monetary policy necessitates both an arm's-length relationship to the political process and oversight by elected officials." Williams reminds us of "operational mandates" of the gold standard, fixed exchange rates, and money growth rules. Each neatly solved the governance problem, but each turned out to produce troubled monetary policy regimes. He contrasts these regimes with "goal mandates" in which the government tells the central bank what it wants to achieve, such as an inflation target, but leaves the bank free to achieve it with much less constraints on the nature and use of tools. He reminds us of the general success of inflation targeting.

Williams closes, however, in favor of a "monetary policy rule such as the Taylor rule." Such a rule includes goals—such as the target 2 percent inflation rate—but also specifies in general terms how the Fed should move its lever, the short-term interest rate, to achieve those goals.

He raises three important issues, however: how to handle variation in the "natural rate" of interest, which is an input to Taylor rules, in a less judgmental and discretionary way; and the lesser issues of the zero bound and just which rule should be followed.

George Shultz concludes the general discussion and the whole conference with "Welcome to California," wry in context but surely expressing how the participants in this conference felt at the end of the long day of fascinating and novel discussion.