

How Should Monetary Policymakers Cope with Uncertainty?

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It's a pleasure to be here today with my two distinguished fellow panelists, John Taylor and my colleague Richard Fisher. Our topic – how monetary policymakers cope with uncertainty – is an important one given the impact that monetary policy can have on growth and inflation in the short run, and price stability over the longer term. Almost by definition, central banks operate in an uncertain world. Monetary policy works with a lag -- a long and variable lag as they say, though I wonder whether the reaction of financial markets in recent times may have made that lag somewhat shorter and perhaps less variable. Indeed, the significant moderation in economic volatility since the mid-80s, and the recent incredible resilience of the U.S. economy to a wide range of challenges suggests uncertainty may be smaller now, though the causes for these changes and how permanent they might be are matters of keen debate.

Nonetheless, making policy will always involve dealing with uncertainty as to both the economic outlook, and the effect of policy. How central banks manage this is critical to their success and critical to a variety of issues that have surrounded the practice of central banking for most of the last quarter century. Given the uncertainty in the sources of economic fluctuations and the transmission of monetary policy to the economy, how can the public hold central banks accountable for their policy decisions in the way that it might like to, given the high stakes involved? Should policymaking follow rules, and, thereby, reduce uncertainty about current and future policy? In the same vein, should central banks announce targets for inflation or other goals? And how should communication tools be used to convey what central banks are doing, or even what they are likely to do? I am not going to address all or even most of these questions, but I mention them to give a sense of the pervasiveness of the issues related to uncertainty in monetary policymaking.

Obviously, the views I will share with you about how policymakers cope with uncertainty are mine alone and not those of the Federal Reserve Bank of Boston or the System more broadly. I have been a member of the Federal Open Market Committee for 12 years. As many of you know, I came to the presidency of the Boston Fed after a career spent in Reserve Banks “making things work” broadly speaking, with plenty of experience helping to manage a variety of financial crises fraught with uncertainty. So I come to this topic as a practitioner, not a theoretician, though I have learned a great deal from the tremendous scholarship that has been devoted to this general area over the years.

Uncertainty affecting the setting and conduct of monetary policy arises in two forms. The first of these involves macro-economic and financial uncertainties that have the potential to affect the achievement of policy goals. This can involve such mundane matters as ambiguity about what current data are telling us about the future. It is never clear, for example, whether a stronger or weaker than expected employment report will be sustained or reversed by later data, and that unknown could bear on the near-term policy decision. There are reasonably clear frameworks for thinking about this sort of uncertainty, for asking “what-ifs” and modeling the results. Of a more substantive nature are uncertainties related to trends that could affect the performance of the economy over the medium term. What is the potential for an oil shock to feed through into core inflation? What is the yield curve telling us? What is the potential for current account imbalances to affect the macro-economy in a significant and negative way? For such uncertainties, “what-ifs” and models may be less effective and a more judgmental approach to policy setting is required.

The second form of uncertainty stems from major shocks that have the potential to threaten financial stability. These are unusual to be sure, but not unknown in my 12 years. Such events can stem from several sources — more or less traditional financial crises such as the Mexican and Russian debt problems or the LTCM crisis in the fall of 1998; the

potential for severe operational disruption as in the face of Y2K, and, most recently, and tragically, the geopolitical and human horror of 9/11. Here judgment becomes all-important. What actions are necessary to limit the spread of systemic problems, and reduce the uncertainty that could paralyze markets?

Today, I want to address how monetary policy copes with both types of uncertainty. I would also like to end with a few words on the important and related issue of how central bank communication is evolving as a tool with which to both explain the sources of uncertainty and reduce its level.

Coping with uncertainty is both one of the most difficult aspects of being part of the FOMC, and the part that makes it so satisfying, as it involves an intellectual challenge as well as the performance of a public service. One highly important element in dealing with uncertainty is the strength of the Committee itself. In that regard, it is perhaps fashionable to deride committee decision making in general as bureaucratic and cumbersome. My view is that in situations where there are many possible philosophical approaches and a lot at stake, a committee helps its members to both see all aspects of the issue, and weigh the risks and costs of a particular decision. As with other vital institutions, like the Supreme Court, there is value to a committee decision on policy versus one taken by a single executive.

The Federal Open Market Committee brings together a diverse group of skilled policymakers with a wide range of perspectives and experiences to address the policy choice. It ensures that policymakers benefit from a range of views and economic frameworks that represent information culled from a broad swath of the economy. And the Committee works to create a consensus around policy choices – a consensus that, in my view, aids in communicating decisions. Moreover, the Committee's regional membership helps to create public acceptance of the sometimes difficult choices that are involved. So I view the structure and functioning of the Committee as a key first step to policy-making.

When FOMC members gather to evaluate the information available and make a policy decision in the face of macroeconomic and financial uncertainty, they have plenty of tools at their disposal: numerous indicators and measures of economic activity, arguably the best economic models, and forecasts to put that information into an organized structure, and the lessons of history to guide them. All of this helps in assessing the current and prospective state of the U.S. economy.

But data and models aren't perfect and they never will be. Important indicators are imperfectly measured. There are always bands of uncertainty around the key relationships in the economy. And these relationships rarely stand still, as the effects of changing demographics, institutions, and technological progress alter previous regularities in household and business decision-making. As incoming data are evaluated, decisions about whether surprises are an aberration, a measurement problem, a temporary blip, or a sign that it's time to fundamentally reevaluate some aspect of an overall economic framework figure into each policymaker's calculus.

Perhaps the most important of recent examples has been the uncertainty around trend productivity growth and technological change. For about a twenty-year period ending in the mid 1990s, productivity growth averaged only about 1.5 percent a year. As information technology and the power of computers expanded dramatically, many reasonably expected the economy to exhibit an increase in productivity. Yet for a relatively long time, none could be observed in the aggregate data, prompting Robert Solow's famous quip: "You can see the computer age everywhere but in the productivity statistics".

By the latter half of the '90s a substantial rise in measured productivity growth was seen and appreciated, first and foremost by Alan Greenspan. But there was a great deal of uncertainty about the source of the measured change. Was the apparent jump in productivity a temporary response to short-run demand surges that brought unused capacity back into production? Or was it likely to be permanent (or at least long-lived), reflecting the long-awaited fruits of years of investment in high-tech hardware, software, and process improvement? If the outsized surge was temporary, would productivity then revert back to the lower rates of the 1970's and 1980's as the expansion aged, or would some of the increase persist into the next century? The answers to these questions have important implications for sustainable economic growth without inflation, and thus for monetary policy. In this case, productivity growth has continued for a relatively long period of time, but at the time this was by no means certain, and it is no less uncertain today.

How have I as a policy maker learned to deal with such elements of uncertainty? In part, by setting a couple of standards for myself, and, in part, by using common sense and judgment. My first priority has been to maintain a focus on the

important long-run goal of the central bank – price stability. Actions that sacrifice that goal, or have a clear potential to do so, will be quite costly. The hard won credibility of the central bank might suffer, with all that could mean for inflation expectations and price-setting in the economy. So – first things first. But, as we have seen, inflation — particularly measures of core inflation — has been slow to build in recent years. Thus, for much of my time on the Committee, my focus has been on striking the right balance between growth and price stability. How fast could the economy grow without waking the inflation giant? How much is globalization affecting the sense businesses have of their pricing power, and how long could the productivity boom insulate the economy from pressures related to rising compensation and unit labor costs? The answers to these questions and others were never patently obvious, so my preference has been to move with care, in steps that taken individually would have a small impact, but over time could build if that became necessary. So, for me, dealing with uncertainty means following two basic standards – “first things first” and “move with care”; that, to me, is the essence of a common sense approach to policy.

As an extension, it seems to me that a good policy has to be as informed as possible. This means depending on as many and as wide-ranging sources of information as one can. So my own view is that one should never rely on a single set of measures; look at multiple data sources for each economic process. And talk to or hear from as many people from as wide a variety of economic and geographic circumstances as you can. The structure of the Federal Reserve System and the Committee provides many opportunities to hear from a diverse group of people, both within the FOMC and among the Reserve Banks' varied outside contacts. Contacts and Committee members bring diverse backgrounds and experiences from a host of sectors, viewpoints, and regions.

Common sense also suggests to me that uncertainty means there is always a vital role for judgment in setting monetary policy. While the need for judgment will be most acute and obvious in times of systemic crisis, it always plays a key role in setting policy. To me this involves an eclectic approach to economic theories, rather than a reliance on any one specific doctrine; at times, aspects of all of them are useful. This does not mean that I do not appreciate the value of “policy rules”, most famously the “Taylor rule.” Such rules, which summarize the systematic response of monetary policymakers over long periods of time, are extremely useful as benchmarks or guidelines when making policy. In their various forms, rules can help a policy maker understand what a rigorous application of historical responses to various economic data might suggest for the stance of policy. This is instructive, but in my view not determinative, as a variety of things about the current economy may not necessarily be captured well by history or by simple rules. Finally, and in many ways most importantly, one has to judge both the balance of risks in any given stance of policy and what the costs of policy action or inaction might be. “What-if” scenarios can be helpful here, as I noted earlier, but in the end it is the policymaker's own sense of risks and costs that determine how he or she perceives the right policy choice. As Chairman Greenspan has noted, making monetary policy is about risk management, and, in my view, managing risks has an important judgmental component.

This brings us to the second combination of uncertainty and policy response that I noted earlier, the much more difficult uncertainty posed by unique, systemic financial shocks that threaten the very heart of the economy. Every once in a while -- actually more often than one would like -- the nation and policymakers at the Fed have to deal with an unexpected, major disruption. As I noted earlier, these have occurred with some frequency over the last 12 years, with one of the most recent examples being 9/11.

The events of September 11, 2001 were certainly unexpected and raised enormous fears for the nation and its economy. Watching the World Trade Towers crumble on national television was psychologically devastating — and the physical damage and security concerns closed the New York Stock Exchange and many firms with offices in lower Manhattan, with effects threatening to ripple throughout the economy. How do policymakers deal with these most dramatic and ultimately most threatening events?

In such extraordinary times, while the same standards of “first things first” and “moving with care” are important, judgment and timing become vital. Timeframes for action can be short and the pressure intense. The Committee can meet by phone between meetings to discuss issues and make policy changes if needed, and this has been done a few times during my tenure. In such circumstances, it is even more important than usual to gather information from diverse sources and from multiple perspectives. For example, during the days immediately following 9/11, staff at the Boston Fed were in touch with major market participants in the First District on a nearly round-the-clock basis, sorting out problems and helping the financial system work again after that tragedy. Boston was far from unique here; such intense

activity occurred at Reserve Banks around the country, with New York and Washington taking the lead as policymakers coped with the aftermath of the tragedy.

Crisis situations by definition imply that time is at a premium. Judgments need to be made about whether or not the system is in jeopardy, and making such judgments and assessing the probable outcomes is quite hard. The first and foremost important consideration for the Fed in these instances has to be the stability of the financial system. Knowing that, the first response must be a consideration of whether heightened liquidity is needed so that financial markets can function more or less normally. If such a decision is made, the provision of liquidity has to be temporary, but it is the key to market stability.

In the case of 9/11, the wholly appropriate decision of supplying extraordinary liquidity reflected the effect of the destruction of significant market infrastructure and the potential for market gridlock. Reserve balances swelled by almost \$200 billion in the period following September 11th as the Fed flooded the markets with liquid assets. To offset the impact of a lack of air transportation, Reserve Banks gave credit for check deposits without immediately charging the payor, adding nearly \$20 billion in reserves all by itself, and supported so-called “off-line” electronic transfers of funds and securities well into the night to help settle markets. As the crisis subsided, the unneeded reserve balances were withdrawn, but their presence was vital in stabilizing the situation.

The crisis also prompted a change in the stance of policy. At the time of the tragedy, the U.S. economy was already in the midst of what turned out to be a mild recession, although it had not formally been classified as such at that time. The federal funds rate had been cut seven times that year, taking it from 6 to 3.5 percent. In the face of the crisis, prospects for real GDP declines in the fourth quarter were significant, raising real issues of economic strength. The FOMC’s response was to cut the target federal funds rate by 50 basis points, a decision made during a special telephone meeting on the Monday of the following week, and announced the same day. Remarkably, the economy proved much stronger than expected over the next several quarters, but at the time the possibility for lasting economic damage seemed very real.

Finally, let me say a word about how the FOMC has begun to use communication with markets as a way of minimizing uncertainty. Attitudes regarding communicating central bank policy changes have evolved considerably over the 30+ years I have worked in the Federal Reserve System, and I believe there can be no doubt this has been a good thing. Until 1994, FOMC decisions were not made public until the publication of the minutes of the meeting, six to eight weeks afterward, although it was clear the market was quite adept at inferring the direction and size of funds rate changes within hours. Since that time, in several steps the Committee evolved to its present policy of announcing its action after every meeting, disclosing the vote and any dissents, and publishing the minutes of the meeting after three weeks. In my view, this level of communication has helped the public understand Fed policy, and has been useful recently in assuring jittery markets that policy accommodation could remain for “a considerable period”, and then be removed at “a measured pace”.

In a way, the last couple of years have been the exception that proves the rule about the uncertainty involved in setting monetary policy -- there has been considerable economic uncertainty globally and in the U.S., but not much uncertainty about the needed direction of U.S. monetary policy. Short-term interest rates needed to rise, but the question was when to begin, and how long to continue. While the Committee is still working on an answer to that last question, I believe the overall process -- including communicating as we did -- has had both advantages and perhaps raised some reasons for caution. On the positive side, it has aided in a rather smooth transition from an economy functioning with lots of support from both monetary and fiscal policy, to one that appears to have solid, non-policy-driven, forward momentum, though the smoothness of this transition likely owes something to the overall moderation in economic volatility I noted at the start of my comments. In recent years, in part guided by statement language, markets have helped to keep financial conditions supportive of growth. The U.S. as an economic engine figured importantly in world-wide growth over the period as well.

A possible reason to be cautious involves both the power communication can have and the certainty it can foster. It is clear that communication by policymakers, whether in the statement itself or in speeches or testimony, can be quite powerful. Even when carefully crafted, it risks the interpretation of a pre-commitment to action when that is not the intent. I recognize forward-looking language from a central bank can help to anchor markets, but, absent unusual

circumstances, I wonder whether the resulting sense of policy certainty that can be conveyed is appropriate given the fact that often the next move of the Committee is not a foregone conclusion. Is there a risk that such communication will limit the flexibility of monetary policy setting? Or, conversely, could such communication produce policy inertia? I do not know the answers to these questions but they do nag at me.

And, in my view, we may be entering a period in which policy changes are even more dependent than they have been on current readings of the economy, with all the uncertainty such readings can bring. So, as the Committee's minutes have suggested and its recent policy statement confirms, its communication is evolving. In that regard, I believe it will be important to consider how best to convey what the Committee did and why in the context of the uncertainty involved in future policy action. Of course, making such fine distinctions can be quite difficult particularly as markets now vigorously deconstruct every aspect of the Committee's policy statements.

In sum, policymaking always occurs surrounded by a cloud of uncertainty. I view the standards of focusing first on price stability, moving with care, and using common sense and judgment about risks as critical to making policy in such an environment. In extreme circumstances, calming markets and restoring confidence with an ample but temporary supply of liquidity is vital in addressing market uncertainty. Finally, I believe as FOMC communication evolves, as it inevitably will, policymakers should move carefully in recognition of the power such communication can have.

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