Mr. Summers: Let me attempt to be provocative. This conference has been singularly celebratory with respect to a set of ideas about central banking. One is almost reminded of Bob Solow’s famous statement in 1968 that we now understood the broad framework in which stabilization policy needed to operate and the challenge was to estimate the relevant functions with greater precision. We all seem to be agreed on the importance of low inflation, on the importance of independent central banks to that objective. Those who suggest that this growing intellectual realization is not dominantly responsible for good things that have happened over the last decade, as the two papers did yesterday morning, are generally subject to a clamor of criticism. We discuss how an independent central bank focused on responding to the dynamic consistency problem with respect to inflation can operate with more precision in an uncertain environment.

Now it is possible that the settled consensus will continue to be the settled consensus 15 years from now about where the major issue is in a way that no past settled consensus has been the settled consensus 15 years hence. It is possible. It is also possible that some different set of issues will emerge over the next decade that will make the more technical aspects of refining the inflation target regime that has been a focus of much of our discussion look like sideshows to other large issues.
I guess my question for the panelists would be: If on that perhaps remote possibility that this discussion and this settled consensus looks less comfortable a decade from now, why will it have gone wrong and where might it have gone awry? Candidates that come to mind for me are questions of the link with exchange rates and the viability of ignoring exchange rates in setting monetary policy in major countries, questions that were touched on to some degree yesterday involving financial stability and the fluctuations associated with the proliferation of financial intermediation that spreads risks.

My real question to pose for people is: If the generally small range of disagreement in which we are operating here proves to have missed something important, what is it likely to be as a kind of risk protection?

**Mr. Schoenholtz:** There were a number of comments today and yesterday about circumstances that might encourage policymakers to act differently from the traditional Brainard advice of attenuated response. These circumstances include an approach to the zero bound, and, at the opposite extreme, a need to reduce high inflation. I wonder whether we couldn’t add to that list the case in which you are already at the zero bound and when key transmission mechanisms are no longer functional. The obvious case of Japan stands up. I wonder if some of the panelists would like to comment on that.

**Mr. Meltzer:** One of the things that is notably missing from the discussion that has been important in the past is the role of politics and the willingness of the public to support the policies. The Bundesbank, in its early years, certainly was very aware of the need to develop that kind of framework and other central banks have too. I’d like to give two examples of two very conservative central bankers who were responsible for or at least presided over the great inflation. William McChesney Martin was the very model of a conservative central banker. His goals were to preserve the stability of the dollar and, at the same time, to prevent inflation in the United States. He failed noticeably in both of those goals. Arthur Burns was certainly a conservative. I don’t know whether he was a conservative central
banker, but he was certainly a conservative when he became central banker. Both of these people relied on judgments, for the most part. Burns was atheoretical. That is, he used what was formerly the National Bureau framework of analysis, which was an entirely empirical framework without any preconceived theoretical bias. Martin, for the most part, used his judgment and the judgment of the marketplace to guide his policies. Both of them failed. Certainly, a major part of those failures was illuminated in the research and discussion here—unwillingness to distinguish between real and nominal interest rates and the mistakes about the size of the gap. But those cannot possibly explain repeated errors that went on for 20 years. After a while, you know that something is wrong with your forecast, especially if you are judgmental and you are going to do something about it. I would certainly put as a very important part of that and an important part for the future, as I am going to suggest in a moment, the fact that at that time, before the large inflation, there was not a political consensus for doing the kinds of things that were done. Every single chairman of the Federal Reserve at that time made the statement that we absolutely do not want to have a recession in order to bring down inflation, and they hoped that they would be able to do it by just slowing the growth rate. That turned out to not be the case. We now are living in a world where—not just in the United States but in many countries with future fiscal deficits of very large size—the financing of those large deficits and maintaining the pressure off the central bank to finance those deficits raise serious questions about whether the problems that occurred for the two conservative central bankers that I talked about will not be problems for the central bankers who are sitting here.

Mr. Gaspar: Janet, I am intrigued and very interested in your comments about simple instrument rules being useful. One of the reasons why is because they can provide insurance against behavioral bias when a policy committee is trying to estimate the current state and prospects for the economy. You went on Carl Walsh’s results on difference rules. You said he was kind of portraying the performance of these rules against a straw man because when Taylor rules are used
in the central bank, the unobservables that go into the rule are, in a sense, adjusted through judgment. I saw some tension between these two statements because, indeed, if you allow judgment to affect the Taylor rule, then I would guess the insurance element of it goes down. Could you please clarify how this works out for you?

Mr. Fraga: Marty Feldstein commented that “adopting inflation targeting could, in a case where a target was missed, weaken the credibility of the central bank.” Those were his words. I’d like to put that in the context of the subjects we have been discussing here. For example, Mike Mussa asked why we should do anything here in the United States if things are going so well. And also in the context of what Janet Yellen said, which was “Yes, but we are all subject to near-terms biases and things have gone so well here.” Where do I want to go? The point of having a formal inflation targeting system in place is exactly to try to do something that doesn’t require the kind of virtue or virtuoso performance that we have seen here in the United States under the leadership of Alan Greenspan and, prior to that, Paul Volcker.

When we introduced inflation targeting in Brazil, that was exactly what we had in mind. When Marty Feldstein says he is afraid that missing a target will lower credibility, I come back with, “Okay, but what if that was indeed a mistake? Wouldn’t it be nice to point that out and to make sure that this is something that can be corrected?”

When I listened to Chairman Greenspan’s introductory speech yesterday, it reminded me of many speeches that I’ve heard over the years from Eddie George and Mervyn King. The only thing that is missing, I believe, is more emphasis on transparency. We were talking about communications with the marketplace. In my view, the key is to have (1) transparency about the reaction function and (2) transparency about how the central bank sees the landscape. On the back of that, then, let the central bank be judged on a system that perhaps will require less virtue because it counts on the criticism of everyone else around. It does so on the back of exactly the kind of transparency that the Bank of England, the Bank of Canada, and many of us in the devel-
oping world have put forth. This is just a small point. Some day in the future, Alan Greenspan may not be there. It might not be such a bad idea to work on a system that doesn’t quite require so much virtue.

**Mr. Stern:** My question is from the perspective of developing countries. That is not surprising coming from the World Bank. I do, from that perspective, have some unease about the narrowness of the notion of changing structure in the models and associated with that a narrowness of objectives. For most developing countries, the macro challenge is fairly clear. It is about raising the growth rate in a sustainable way and promoting the structural changes that will bring about that acceleration in the growth rate.

Of course, if we are successful on that front, i.e. changing the structure, then, in a sense, our actions are contributing to shifting the underlying model. Now, of particular relevance to this discussion is the scale, nature, and functioning of the financial sector. We know that the way that operates has a very powerful effect on economic growth. We have to recognize that the kind of actions and instruments that the monetary authorities use will influence what happens in this sector. After reflecting on this, it is quite possible that we will come back and say that the simple price targeting approach is the right one. We do know from this broader growth perspective that price instability is bad for growth. But I think that even if we do come to that conclusion you cannot put to one side the crucial underlying questions concerning the effects of the actions of the monetary authorities on those structural changes, particularly in the financial sector.

My question for the panel is what do they see, particularly in a developing-country context, the contribution of the monetary authorities to the kind of structural change that is needed? To qualify and make sure that there is no misunderstanding: What I am talking about here is the monetary authorities helping with raising the sustainable growth rate and I am not talking about the accommodation of populist spending plans. That is quite another story. I do agree with Leszek Balcerowicz that the dangers on those fronts are still with us.
Mr. Feldstein: Let me start with Larry Summer’s provocative question: “If everything is okay now, what is going to go wrong in the future?” There is no shortage of things we could put on such a list. My list would include the current account deficit, savings behavior, in the case of Japan the level of debt, and more generally the financial sector. So, there are a lot of things that could create problems for us and that don’t fit neatly with any of the current models.

Kermit Schoenholtz asked, “What do we do if we actually get to the zero bound?” There is the unspoken word at this meeting—fiscal policy. As I said, part of the response to the low inflation, low interest rate environment earlier this year and at the end of last year was an appropriately stronger-than-normal move by the Fed and also a fiscal policy that recognized the fact that there were limits to how much more monetary stimulus could be provided. That is something that, under normal circumstances, I would say, “No, no, you don’t use fiscal policy for stabilization. There are all kinds of reasons why it is the second-best kind of policy and one ought to depend on monetary policy.” But when you get to a situation of the sort that we are in and have been in earlier this year, then I think there is scope for fiscal policy.

Allan Meltzer—on why these former Federal Reserve governors didn’t bring inflation under control: Well, of course, we will only know when we read your second volume. But we do understand already that there were many false ideas that influenced Federal Reserve policy in those days. There was the confusion between nominal and real interest rates. There was the view that you cannot bring down inflation by monetary policy because it was ingrained in monopoly unions and monopoly producers. In any case, even if you could bring it down, it would be at “too high of a cost.” I remember going to seminars in which people explained that at most what you should do is try to prevent inflation from going up. To pay the price to bring it down from, say, 6 percent was just too high a price to pay. Then, if there were an adverse shock and it went up to 7 percent, then you would not want it down from 7 percent. Bit by bit we went from 2 percent at the beginning of the 1960s to 12 percent at the end of the
1970s. There was also a view that inflation just was not that bad and even a view that inflation actually did some good. Not only did it “grease the wheels,” but because it led to a lower demand for money, it led to an increase in capital intensity in production and therefore greater real output (a theory that ignored the adverse effect on capital intensity caused by the interactions between taxes and inflation).

To Arminio Fraga, I want to be clear that I am not making a case against inflation targeting. I’m saying that the case is country by country and, indeed, time by time. Starting with the history that Brazil had of inflation and inflation target and conforming to the inflation target could have a big payoff, and the negative that I refer to could be relatively small. But for the United States, the 30-year bond reflects 30 years of future Fed chairmen. So, there is confidence in the American financial markets that we have learned how to do it; we have learned that we should do it, and we are going to keep doing it.

Ms. Yellen: Regarding Larry Summer’s question about what pitfalls might lie in the future: As I go out, say 20 years, I would definitely worry about the fact that we have aging populations in the industrial countries and escalating levels of deficits and debt. We are not using the period we have now to do anything about it (and, in fact, in many countries the situation keeps getting worse). So, not in the next two years or five years, but in 10 to 20 years I would certainly worry about the pressures that central banks will face and the political environment in which they will find themselves as those pressures become very apparent.

I wanted to pick up on something Marty Feldstein said in response to Allan Meltzer’s point concerning inflation in the 1970s. I very much agree with what Marty said. There was definitely a literature at the time that said the costs of inflation are low, perhaps negative. The view was that high unemployment is not a price we should pay to bring inflation down again: It is simply not worth it. A point made in the discussion of Ken Rogoff’s paper was that sentiments concerning the costs of inflation have changed very dramatically. Ordinary people
around the world became utterly disgusted with inflation and made their feelings about this clear.

Bob Shiller has done very interesting research on the topic of why people hate inflation and why they disagreed with the economic consensus at the time—that the costs of inflation were not very high. Feldstein has made a very interesting and important intellectual case that the major costs of inflation stem from interactions of the tax code with inflation, which impair incentives to save and invest. But that is probably not what motivates the popular disgust with inflation seen in Shiller’s surveys. Popular concerns are quite different. Bob Shiller finds in his surveys that people simply misunderstand the inflationary process. They see no good reason why their own wages should rise more rapidly in inflationary times. They thus fear that inflation will lower their living standards. In contrast, economists who were polled on this topic all say that when inflation is higher, they expect wage increases to be higher. Around the world, in all places where Shiller took the survey, ordinary people had no such view that their wages would increase. Inflation thus induces a huge amount of uncertainty. I believe these popular, albeit somewhat misguided views, have been very important in strengthening the resolve of central banks to bring inflation down.

Let me respond to Vítor Gaspar’s question about the role of judgment in implementing instrument rules. I am really not certain just how judgment and rule-based recommendations should be combined in arriving at decisions. This is a hard question. So, I don’t have the perfect answer. But let me give an example. In the period 1994-95, when I first joined the Fed, we embarked on a policy of tightening because unemployment was falling very rapidly and inflation was still above target. The question was: How much should we tighten? How far should we go? I will always remember looking at federal funds futures at the time and noting that markets expected the federal funds rate to rise to 7 1/2 to 8 1/2 percent. I also remember the feeling around the table at the time: It seemed that the momentum in demand was just never going to slow down. We were tightening policy but demand was just growing, growing, growing. Things seemed so
robust they would never slow down.

In what sense do I find the rules helpful? At the time, I remember sitting and staring at pictures of the Taylor rule, which to my mind more or less summarized the Committee's own policy history. I took the recommendations of the rule to be a reasonable benchmark for judging how much tightening would be sensible under the circumstances and in line with the historical behavior of the Committee. The rule suggested that the funds rate should be raised to around 6 percent, not the 8 percent the markets expected. As it turned out, the Committee did stop tightening when the funds rate hit 6 percent. Luckily, evidence of a slowdown finally emerged. I found the rule helpful in making the case that the Committee risked excessive tightening due to impatience. On the other hand, suppose the Committee had stopped at 6 percent as the rule suggested, waited, and discovered that the economy did not slow down after all. Suppose unemployment just kept falling and inflation was starting to rise. It would not then have been sensible to mindlessly follow the rule indefinitely. No sensible committee would have done that. So, I see the rule just as a policy benchmark. One should ask “Do we have a good reason for deviating?” Perhaps the answer is that something that worked historically will not work now. But why? Do we know something? What is our basis for engaging in a policy that diverges from what we did and what worked well in the past? It is in this rough sense that I find rules useful as guidelines.

Mr. Knight: Thank you very much. It is my job to draw us to a close. It has certainly been a very, very productive morning. There were a lot of thoughtful comments, particularly some of the forward-looking ones. It now remains for me to call on Tom Hoenig to close the proceedings.

Mr. Hoenig: Thank you very much, Malcolm. My job is simple and that is to close the conference. I want to do it in a couple ways. First of all, I want to acknowledge and thank you and say how honored the Federal Reserve Bank of Kansas City is to have people in
this audience note the value of the symposium and its contribution to economic knowledge and policy consensus. With that said, I want to assure Larry Summers that there will be future issues for us to discuss, if I have anything to do with it.

I would also like to thank those who really do bring value to the conference—that is, those who have worked hard to prepare the papers, the discussants, the panelists, and the chairs of the sessions. You really do bring it all together and make it work so well, starting with the Chairman and his opening remarks. That is where the value comes from. I certainly recognize that. Thank you.