Mr. Frenkel: I have one brief comment and one a little bit more extended. The brief comment: Even though everyone who mentioned the possibility of changing the inflation target and raising it dismissed it immediately, the very fact it is mentioned suggests to me that I still should add one more nail to it. One of the most important mechanisms by which an inflation target works is the mechanism of anchoring expectations and the credibility thereof. It seems to me completely counterproductive. It is not an accident. In countries that struggled a lot in order to disinflate and made some achievements on this score, you will find very little sympathy to such a departure.

Let me come back to the more fundamental issue, which has to do with the abnormal time unorthodox policies/normal time orthodox policies, as if it is up to us to turn the switch and declare we are back into normal time and as if our previous choices of moving from orthodox to unorthodox does not impact the frequency of what we will then call “normal” and “abnormal” time. It is a very important point to note that, as we depart from what we call the convention, even though we may get some greater efficiency, part of the calculus of cost-benefit of doing it has to do with the very definition of normal and abnormal.
Let me make a more specific point on this. We all know the main gorilla in the room is fiscal policy. And, as much as we will play with unorthodox policies for monetary policy, unless we find a mechanism to impact—or somebody else finds a mechanism to impact—on this gorilla, we may erode the effectiveness of what we normally do, while not contributing really to the removal of the gorilla. So, yes, everyone who dealt with it, whether it is the Fed or the European Central Bank or the smaller countries, knows the gorilla is there. That is a major issue.

And that brings me to the final question. When you have a concert and you have several musical instruments, each plays according to the music. And, when they play it right, there is harmony. Now suddenly the conductor notices the violin of a very important policy instrument is playing completely off-tune.

What should he do? Should he put all the pressure on the violin to return to the tune? Or should he say, “Well, this violin is not going to help me anymore; let me change the music of all the other instruments, so as to restore so-called harmony with the distorted violin, and maybe we will have better harmony?”

The attendants at the performance that evening will find it better if he changed the music of all the other 13 instruments because harmony will be queasily restored. What will happen in the future? Will the violin continue to be off-tune? Will Mozart faint?

**Mr. Fischer:** I’d like to describe one use of macroprudential instruments where I am very much on the Bank of England/Alan Blinder line. It is the fact that every country whose financial systems stayed intact during this crisis has had rapid increases in housing prices because you cut interest rates and, bingo, what’s the thing they go out and finance? It’s housing. You are then left with the question, Do we let these price rises continue, do nothing about it, and just work with the interest rate? Or do you try to deal with them separately? We do have a lot of empirical work saying housing problems are at the root of many of the crises. In terms of Alan’s two categories, this is in the “try to burst the bubble” group.

The alternative, as John says, is we will keep raising the interest rate until you have all those issues solved. But we are not at full
employment. Every time you raise the interest rate you have an immediate, significant impact on the exchange rate, which also has impacts you don’t like. So there is a tendency as a central banker to try to find an extra tool.

We don’t have a fiscal problem because our government couldn’t pass a budget during the crisis. So, we didn’t have a fiscal expansion. That was one of the major benefits of the political situation. So what do you do? Well, we introduced a loan-to-value ratio constraint. It said if the banks give a loan-to-value above 60 percent, they have to put aside reserves to deal with it. The impact so far is approximately zero. This is two months later. The data aren’t fully in.

It’s a long story, and I won’t go into details. This should be dealt with on the supply side. There are supply-side constraints. The only measures we have are demand-side constraints. And the question is, Should we stop and say, “Okay, we’ll let interest rates go up, never mind all the other consequences”?

Or do we try to deal with it? We are clearly going to try to deal with it through a variety of macroprudential measures. We have a tool kit. We will probably get them and the crazy aunt out of the closet some time soon and do as a variety of other countries have done. I don’t see this is a worse outcome than the one that says, “Well, let’s just use the interest rate until we get back to a normal situation, take the existing distortions as given, and look at the overall macro situation rather than try to deal with a problem that is developing.”

Last sentence: House prices have gone up 22 percent in the last year. However, they are not vastly out of line with the fundamentals. If they go for another year and a half, they will be vastly out of line with the fundamentals. So, we have a while to deal with it and we are going to try. This is an example of macroprudential monetary policy, and it seems to me to be an appropriate example.

Mr. Barnes: The paper’s interesting modeling suggests that leaning against asset credit overshoots might have a limited impact on the stock of credit. I wonder if that understates the impact? During booms, the quality of new credit deteriorates pretty steadily, as lending standards erode and weaker borrowers are enticed to take risks.
So, tighter monetary policy might impact this marginal new borrowing the greatest. Looking at the aggregate impact on credit ignores the fact that maybe you are squeezing all the weakest credit out of the system.

**Mr. Lindsey:** I just wanted to comment on the observation that central banks do have very good knowledge of bubble formation. You can find that in the 1990s bubble by reading the transcripts of late 1996, for example. It was always an issue. Or the irrational exuberance speech or any number of speeches the chairman gave, justifying accommodating the Nasdaq bubble as a way of raising long-term growth.

The same thing is true with housing. We were very much aware the housing bubble was starting. It was the only transmission mechanism that was available in a world in which the United States was the only engine of global growth at the time those decisions were made. So, I would associate myself with what Alan Blinder said at the end. The real question is whether central banks can become independent of the Minsky-like feedbacks or whether we are, in fact, a part of that process.

**Mr. Hildebrand:** My question relates to Charlie’s reference to countercyclical buffers as the most prominent macroprudential tools available to us down the line.

Charlie, do you think that such a buffer should be designed as a global tool based on a yet-to-be-determined set of global credit indicators? Or do you think it should be an instrument based on national credit indicators or other indicators and deployed by national authorities, be it central banks or regulators? It seems to me the answer to this question is particularly relevant at this juncture, as we finalize the Basel III reform package.

**Mr. Kos:** On large-scale asset purchases (LSAPs), Alan Blinder raises a really important point, which is, What impact do LSAPs have on the yield curve? We tend to think of it as very positive. Long-term rates are pushed down and borrowers can refinance at lower rates. On the other hand, what is the effect on the supply side? Do you encourage banks to lend at flatter yield curves? Do investors really go out and buy riskier assets or do they turn risk averse and leave their money in low-return deposits and the like?
Here, the experience of Japan isn’t necessarily encouraging. They flattened the yield curve—not clear it had a positive impact over time, and even now the banking system has huge levels of deposits looking for loans. You have the big banks with 100 yen of deposits for every 70 yen of loans. In essence, they are looking for opportunities and not able to find them. This is an important area we need to understand better.

The other point is on private-sector assets versus government securities. I ask myself, “Did the Fed really buy mostly private-sector assets?” Mortgage-backed securities (MBSs) are guaranteed by the agencies. The agencies are now owned by the government. You could make the case the MBSs were really just another public sector asset they purchased.

**Mr. Acharya:** I had two points or thoughts to make. First of all, historical evidence suggests that debt-based crises have rarely happened without bad loans being made. The underwriting standards are likely the connection from monetary policy to the Minsky moment when the crisis hits and the bubble bursts. This point that the last loans made before a crisis bursts are always the worst ones is potentially quite important. It naturally leads to Alan Blinder’s point about why adequate supervision or a loan-to-value ratio constraint might be an extremely important tool to deal with the leverage cycle.

The second point I want to make is that I can see a role for the Federal Reserve being the expedient institution for dealing with the problem of agencies (government-sponsored enterprise debt and securities) being held by someone other than the market. But I don’t see why the Federal Reserve balance sheet should be the long-run storage location for these assets. These securities are guaranteed by the government. There should be a Resolution Trust Corporation or some special-purpose utility appointed to either buy to hold or liquidate these assets over the course of time.

**Mr. Rajan:** In comparing two policies, such as leaning against the wind and benign neglect, obviously the role of participant expectations and incentives is key. Not having read the paper, but I doubt you have a fully fledged financial sector in there. Without
modeling the incentive structures and expectations, it is not clear we can say very much about financial risk-taking, leverage and illiquidity in response to a particular monetary policy framework. Moreover, I do have difficulty understanding—and this is genuine understanding rather than skepticism—why small increases in interest rates would have little effect on warding off large increases in asset prices, while we believe they can have large effects on preventing goods-price inflation. So why is there this asymmetry in believing they won’t affect one form of inflation, while they will affect the other form of inflation considerably?

**Mr. Carstens:** My question on this debate is about what interest rates can do to a bubble. A very simple but important question is, Does the impact of such a monetary policy move depend on the state of financial intermediation? The bubble we saw was based on huge innovation and securitization to reach a new type of borrower. I would think the sensibility to movements in interest rates would be quite different in a state where we don’t have the same conditions. That distinction needs to be made, and I want to hear the opinion of the panel about this.

**Mr. Alshabibi:** The paper is very good. The debate about the objectives of central banks is very intense and they tend to cover financial stability and asset prices in addition to price stability. The tendency is also to broaden the instruments—macroprudential and so forth. My question is, To what extent will this have an impact on the relation with the government in general, and on the independence of central banks in particular?

**Mr. Kaufman:** I wanted to call attention to the fact the central bank has always had a prudential responsibility. That responsibility has now become more explicit as a result of the legislation, which has just been passed. If that prudential responsibility is to work at all, it has to work with monetary policy. Therefore, the Federal Reserve’s role has to be a coordinated role with the prudential side and the monetary side, which is quite different from the approach that has been pursued in the past. It requires broader staffing, more people and greater integration of prudential as well as the monetary arm.
The overriding issue for this is the issue of “too big to fail.” This is one of the prudential responsibilities, and even a monetary responsibility. That problem of “too big to fail” has not been fully addressed in the legislation. The legislation punted this responsibility a little bit. As a consequence of this, where we have the problem of “too big to fail,” the issue underlying it is the correct allocation of credit. During the past debacle, large conglomerate financial institutions exacerbated the misallocation of credit. There is nothing, so far, that would indicate to me the misallocation of credit is going to be rectified in the future.

Mr. White: Let me go back to the first session we had yesterday about what causes deep slumps. It seems to me there are two quite different views here. One of them is that the problem is policy error after the slump begins. That is the school that says, “You didn’t lower interest rates enough. You tightened interest rates too early.” This school says, “I have a problem now and I have to deal with it.” I understand that.

In contrast, it seems that what John is saying is that it is the very attempt to deal with the problem now that leads to the problem the next time around. So, an aggressive policy response to today’s problem just exacerbates existing imbalances and that then leads to the next crisis. And the next crisis has to be met with even more active monetary policy and so on. In the end of this process, you wind up where we have wound up right now with more macroeconomic policy tools increasingly useless. So, we are at the end of a 20-year cycle of this stuff.

How do we get out of it? That is the $64,000 question. But, I must say I was struck by listening to Stan Fischer. If one of the dangers we now face is yet another bubble in some places, given very low global interest rates, then the answer is that we have to use macroprudential policies very vigorously in those places. Moreover, we must then try as quickly as possible to renormalize interest rates, not just in the countries affected by crisis, but to try to go back to a more normal regime more generally. In short, I am more in sympathy with John’s approach to things.
**Mr. Weber:** I also wanted to associate myself very closely with what has been said by John Taylor. A framework-based policy is the way we should deal with normal times. But I wanted to put a different emphasis on what he said about the new regulation, because it has two parts. The countercyclical part probably is not the most important example. The resolution regime work we do in the Financial Stability Board on “too big to fail” clearly points out that even if intervention in the crisis was not very effective, it still had to be done to prevent systemic consequences.

The way forward is a two-pronged approach. One aspect is to focus regulation on the “too-big-to-fail” issues in order to have the ability in the future to wind down an institution so that monetary policy is unaffected by a crisis of some of these large institutions. Your focus on the countercyclical aspects may or may not be useful in normal times. But the key changes come with the new regulation. And it has to be done because crisis management doesn’t just have short-term cyclical effects. It also has long-term effects on incentives. In order to be able to get back to normal policy, we need to eliminate these long-run adverse consequences of the crisis intervention.

**Mr. Musalem:** I wanted to ask about the private/public sector asset purchases. We are talking about quantitative easing. The way the effectiveness of this is being mapped is how many basis points of relative price movements in assets you can get for certain quantities of money injected.

I like to think of extreme outcomes just to get a sense of boundary conditions. If we got to a world—and I hope we don’t—where the curve is completely flat and credit spreads have collapsed completely, there will be no way to measure what is more effective in terms of affecting the credit yields or term premia. In this sense, how can central banks think of the effectiveness of monetary policy in terms of buying public or private assets? And, again, I am not predicting this will happen, but as a boundary condition it may be useful to think about it.

**Mr. Mussa:** I assume the panel agrees in addition to keeping inflation relatively low and stable, monetary policy has a limited capacity
to contain fluctuations in output, especially on the downside. The question is, If we use that limited capacity extremely aggressively in order to smooth out what are relatively minor fluctuations in output, do we not lose effectiveness in dealing with larger fluctuations? We in this room virtually all agree countries with independent national monies should have floating exchange rates—an important measure because that keeps the private sector informed of the risk of exchange rate fluctuations and induces appropriate risk-avoidance behavior.

If we smooth out all these minor fluctuations in macro, then people may take undue risk. So the conclusion I suggest, consistent with John, is we need to calibrate the monetary response to what we think is the magnitude of the disturbance. We can’t always do everything we possibly could do to smooth out the disturbance. If that is our policy, we are behaving like Michael Jackson’s physician.

**Mr. Kroszner:** I want to put one qualification on the praise for using macroprudential supervisory policy. When we were at the Fed, it was sometimes very difficult to actually implement macroprudential policy because it could be contrary to many other government policies.

For example, in the housing market, there are a lot of policies that try to reduce down payments. The Federal Housing Authority and many of the actions by Freddie Mac and Fannie Mae were to try to make housing more affordable. So, you have to worry a little bit when there is some boom or some sort of insipient boom because there may be a lot of political economic interests supporting that boom. It may make it very difficult for the central bank to get in the crosshairs and act in an independent way and not be threatened politically to try to undertake an action to be a good macroprudential supervisor and prevent a bubble from forming.

**Mr. Blinder:** I'll be very brief, starting backward with Randy’s question, which I'd like to link with Jacob’s first intervention about deficits. The hard truth in the life of a central banker is that the fiscal authorities—the Congress, the president, and the parliaments—will do what they will. I don’t think a central banker can do better than taking it as an exogenous variable. Perhaps some exhortation where it’s the central bank’s business, but not on things that aren’t the
The fiscal authorities do what they do, and then the central bank maximizes subject to those constraints. That goes both for the prudential and for the budget deficit.

Second, Dino raised a correct point, which I neglected: that when you look at the Fannie Mae/Freddie Mac MBS, what they are is not so obvious. One day you were talking about a private asset, and another day you were talking about something that looked like a public asset. What I should have said, to make the point I really wanted to make, is that there’s a key difference between interventions targeted on risk premia and interventions targeted on term premia. That is really the point I wanted to make. It is almost the same, but as Dino points out, not exactly the same.

Which brings me to Alberto’s question. He wants to take this argument to infinity and imagine that the Federal Reserve or whoever has bought $27 trillion worth of assets, driven every risk premium to zero, and made the term structure completely flat. The question you asked is, How would you measure the effectiveness in that case? At that point, you’ve run the table and there is nothing left to do. Then the models have to take over and translate how much x basis points of flattening or shrinkage means for macro-variables.

The last thing I’d like to say briefly is about Raghu’s question. He asked about why we think interest rates affect macro-variables like output and inflation but don’t affect bubbles. We don’t think that. There are very well-known channels, that everybody here knows, between interest rates and asset prices. That’s what we call “the fundamentals.” The bubble is the crazy part that comes on top of that. It is quite uncertain what kind of impact we can have, with modest changes in interest rates, on beliefs that housing prices will go up 15 percent a year for the next decade or something like that. That is, of course, what drives the bubble.

**Mr. Fraga:** I promise you, if you get to that point, you’re dead already.

**Mr. Blinder:** Most of those beliefs were there.

**Mr. Fraga:** And you’re 60 percent above the historical average, like you were here in the States. So, Charlie, you have the last word.
**Mr. Bean:** It would take me 20 minutes to address all the questions, so I’ll obviously be selective. One strand that connects a number of comments is the issue Alan originally raised as to there being two sorts of bubbles: one which just associates it with the asset price itself; and the other one where there is also an expansion in credit.

I subscribe very strongly to the view that the key issue here is credit and leverage. Some of the older literature in this area was, in my view, misplaced by focusing on the asset price alone. But in this boom, the inflated asset price was a consequence of what was going on in the banking sector and the associated expansion of credit and leverage. So, I certainly agree with the point Alan makes here.

But it also plays into the difference of interpretation of the empirical results between me and John Taylor and some of the authors he cites. The reason I interpret our results as not being very supportive of the role of monetary policy in dealing with this issue is because it has limited effects on credit growth, even if it may have rather more pronounced effects on house prices.

Then there is the point a number of people picked up on about the tendency to slide down the riskiness curve in booms. Hence, even marginal reductions in credit might be quite important if you’re cutting out some of the riskier borrowers. The declines in credit standards that Viral pointed to are obviously a key issue in most banking collapses. That is an important point, which suggests that, even if monetary policy has a modest effect on credit growth, it might still be worth pursuing. Even so, the empirical effects we get are sufficiently small that I am still a bit skeptical that monetary policy is the best weapon to deal with the problem.

John also suggested that we were advocating a world where monetary policy becomes more discretionary. That isn’t how I see it. Indeed, I would see the development of an adequate macroprudential tool kit, together with the use of other policies to address the shortcomings of the financial sector, the “too-big-to-fail” issue and all those sorts of things, as allowing monetary policy to get back to what it does best. With some of the current discussion, I guess I’m worried that monetary policy will end up being asked to deliver more
than it’s capable of. It is suitable for stabilizing prices, but if we expect it to achieve multiple objectives simultaneously, then we will just be storing up trouble for the future.