

# General Discussion: Methods of Accommodation at the Interest-Rate Lower Bound

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*Chair: Susan M. Collins*

**Mr. Shirakawa:** Since Japan was mentioned several times I feel inclined to respond. The Bank of Japan adopted interest rate guidance, also a balance-sheet policy, and the so-called “lending for funding.” So, we have experienced all these things in the past. First of all, the guidance on future interest rates was effective, in the sense that it could reduce interest rate levels. Given this, the additional impact coming from asset purchases was rather limited. In theory, the reduction of interest rates could be duplicated by the interest rate guidance. The effectiveness of this interest rate guidance on economic activity was the highest in the latter part of the period it was adopted. Even after the economy recovered, the Bank of Japan still maintained low interest rates and the guidance was effective. In the first part of the period, it was not effective, because market participants anticipated that future interest rates would be low anyway. The efficacy of the lowered interest rates was tested in the latter part of the period.

I have two questions: First, what are your views on the relationship between asset purchases, on one hand, and interest rate guidance, on the other. Although I have just said that the effect of asset purchases could be replicated by interest rate guidance, the Bank of Japan and the Federal Reserve have adopted two different policies. My hypothesis relates to the diversity of views among policy board members.

Central banks cannot make ironclad commitments to future policy, given the diverse views among board members about future interest rates. In that light, there is a case for asset purchases.

A second question concerns the efficacy of lower interest rates during a period of balance sheet adjustment. The decrease in interest rates may be effective, but it comes with a cost. It may mitigate the impact of the balance-sheet adjustment, but at the same time, it may prolong the length of time over which the adjustment is made. In total, the degree of efficacy during this period is not that clear. Also, agents are faced with intertemporal budget constraints, so lower interest rates may bring demand forward from the future to the present. But as low interest rates persist for an extended period, the effect—the bringing of demand forward, from the future to the present—diminishes over time. Thirdly, it could have some side effect of keeping inefficient firms alive. I do not know if this argument is valid or not in this country, but if society is faced with some inflexibility, then this side effect could become serious.

**Mr. Feldstein:** I wanted to comment on the nominal GDP target idea, which was an idea that I liked a lot a long time ago, back in 1983. In the *Economic Report of the President*, before we had a dual mandate for the Federal Reserve, or before there was any rule, I suggested a nominal GDP target. But of course now we do have a dual mandate. A lot of effort has gone into creating credibility for a low-inflation target. So, if the Federal Reserve were to follow your advice and adopt a nominal GDP path to target, and if that led to a significant increase in inflation relative to the 2 percent threshold, what would you have the Federal Reserve say by way of explanation? How would they reconcile that with the existing dual mandate?

**Mr. English:** I have a comment on the effect of targeted asset purchases, a comment that is more or less an advertisement for a paper by my colleagues Min Wei and Canlin Li at the Federal Reserve Board. They used a no-arbitrage term structure model, to which they added Treasury and mortgage-backed security (MBS) supply factors, to look at the effects of Treasury and MBS supply on the Treasury yield curve. They estimate the model using pre-crisis data, from 1994 to 2007. Movements in supply factors are unrelated to the policy of the Federal

Open Market Committee (FOMC), or expected FOMC behavior, and this period was one when the market functioning was fine. Nonetheless, they find pretty significant effects of supply factors on the Treasury yield curve, and they can then use their model to look at the effects that the model would expect to get from large-scale asset purchase programs or the maturity extension program, and so on.

They find effects that are quite similar to those that come out of event studies like Gagnon et al.

With regard to pass-through to private yields, I agree that the evidence there is somewhat less, but I think that's hard to measure, because corporate markets are less liquid. Separating the signal from noise is, therefore, harder. But I do wonder if the effects are much less than one-for-one—if so, and if you buy the result that our purchases have pushed down Treasury yields, then risk spreads should have widened out quite a lot and should be high right now. But I think the spreads now seem more or less where one might think they should be in the given the cyclical situation.

**Ms. Swank:** Mine is more a question about the political economy, where I believe you are underestimating the effects. My concern is on the credibility of forward guidance in a political situation such as the one we have right now. There are individuals in Washington, including presidential candidates, advocating change in the leadership of the Federal Reserve in order to change the behavior of the Federal Reserve. There are also members of Congress proposing policies to try to change the behavior of the Federal Reserve. This raises questions about the credibility of any guidance today, given the uncertainty about what changes in law may lay ahead down the road? Secondly, on the political economy, in terms of being able to target more, and perhaps to have a bigger bang for your dollar in terms of specific parts of the economy, the Federal Reserve is very limited at this moment in what it can buy. If it were to make more targeted purchases, what would the reaction be, in terms of the Federal Reserve's independence from Congress going forward. Those are issues I worry about quite a bit.

**Mr. Kohn:** I want to focus on expectations and credibility. I think what's held the central banks back from adopting nominal GDP

targets, or price level targets, is concern that their success depends on a pretty sophisticated set of expectations, and changing expectations. So, in order to get real interest rates down by adopting this target you have to have higher inflation expectations in the short run—the short-to-intermediate run—but then come back to target over the long run. This is a pretty difficult thing to convey and to be credible about, and central banks are worried that if they push up inflation expectations in the short run, it could be expensive to restore credibility over the longer run. In your models, it essentially happens automatically, because people know what's coming; everyone is forward-looking. But my fear is that in real life, that's not the case, and I would like to hear your comments on this important issue.

**Mr. Hatzius:** I wanted to pick up on the question by Marty Feldstein about the dual mandate. I think that links to something that is also in the paper about nominal GDP targets. The chart shows that if you extrapolate the historical trend in nominal GDP from 1990 through the third quarter of 2008, then you get a shortfall, as of mid-2012, of something like 15 percent. That is obviously a very, very large number. I guess my suggestion would be that, if you were to go for something like that, to not use the historical trend but to basically pick a point at which you think the output gap would be roughly zero; and then extrapolate forward, with the sum of your estimate of potential real GDP growth and your inflation target. That would give you something like 4.5 percent for the long-run trend in nominal GDP growth. If you do that, and pick the Congressional Budget Office estimate of the last zero output gap in the fourth quarter of 2007, you get a shortfall at the moment of just over 10 percent. If you use instead, for example, the estimate from the Organisation for Economic Co-operation and Development of the last zero output gap quarter, which was actually the third quarter of 2008, you get a shortfall of about 8 percent. So, those are still big numbers, but not as gapingly large as 15 percent. I also think that that kind of reasoning is more consistent perhaps with the dual mandate than Marty suggested.

**Mr. Bean:** A couple of points. I'm a bit doubtful that most of the cases of forward guidance that we actually observe are attempts to

build in the historical dependence that you would want in policy rules. I think they are more in the nature of guidance of how the central bank is thinking. If you do want to put in place a real commitment to the historical dependence in the policy reaction function that you advocate, you need to think a bit more about the necessary commitment mechanism, instead of implicitly just appealing to reputation. As Adam drew to our attention, if you take a look at the Bank of England's Monetary Policy Committee, we have quite a bit of turnover. Adam has about four hours left on the committee, so he is not in a position to commit his successor to anything. The composition of our Monetary Policy Committee this time next year will be such that at least half of the current members may well have changed compared to where we were at our last meeting, so committing to anything further than about a year ahead is probably not feasible. You need Monetary Policy Committee membership to be pretty constant to be able to commit over any substantial time horizon. So I wonder if you have any views on how you are going to achieve the commitment that you need.

The second comment is in relation to nominal GDP. Marty took us back to 1983. As it happens, I actually wrote part of my doctoral thesis on nominal GDP targeting, and 1983 happens also to be when that particular piece was published in *The Economic Journal*! So I am sort of gratified that it is perhaps coming back into fashion. However, I'm a bit wary of how you are actually proposing to apply this, as I understand the sort of path for the level of nominal GDP you'd be announcing would be just a continuation of the precrisis trend. In an environment where monetary policy has limited traction, you will, therefore, be likely to be quite a long way from your target for a sustained period. I think that is actually quite a difficult position for a central bank to be in. The public expects to see the central bank achieve its target within a reasonable timeframe. With you being a long way away from that path for a long time, questions would naturally arise about the ability and desire of the central bank to achieve its goals.

**Mr. Ryding:** Adam posed a terrific question, which is why is it that we have seemingly limited traction from unconventional

policies on the economy. I'd like to offer a couple of thoughts, one of course may be that the problems that we have are not tractable by monetary means. I'll put that one aside because we have interesting papers coming up in that area in the labor market and focus on call it counter-productive side effects of the policy. I'd just like to illustrate it with two examples. First is the commodity price effect from large-scale asset purchases (LSAPs). We've talked about correlation. Since 2008 there has been extremely high correlation between the equity market and commodity prices. If LSAPs have boosted equity prices, given the high correlation, it seems reasonable to take the position that it boosted commodity prices. And last year that had a big impact on short-run inflation figures, which squeezed real income. When the economy slowed in the first part of last year, it wasn't because nominal consumer spending slowed; it was because inflation surged.

The other point is about the lowering of long-term interest rates in the hopes of stimulating interest rate-sensitive sectors of the economy. In that area, there are major sections of the economy that are hurt now because of these long-term rates. For example, if you are retiring it is very difficult at this point to convert your savings to an annuity that's going to pay you. If you are a state or local government, or if you are a company pension fund now, the discounted present value of your future liabilities at these rates are so much higher, you have to divert current spending in order to meet that pension gap. I wonder if we are not thinking enough about some of these countervailing influences from these policies, and I would be interested in the panel's thoughts on this.

**Mr. Lindsey:** First I completely agree with Marty's perception of nominal GDP, written in 1983, and only partly because I was working for him then. But I have another reason to express caution. I would think if we would look back at the last two decades, one of the failures of nominal GDP targeting turned out to have been that a lot of the stuff that is in the price component does not include asset prices. Therefore, no more than price level targeting would have given us the right behavior. I don't think nominal GDP targeting would have, either. We would have still had the bubbles.

Second, I was very much struck by Adam Posen's comments on political taboos and on this group's profession of not being aggressive enough. I don't think it's political, in the sense of policy. I think it's political in the sense of political economy. In free societies, such as Britain and America, individuals and institutions don't do unusual things, because if you do, and you do break custom, and you just happen to be wrong, you are betting the farm. It's a normal, prudential kind of political behavior. I do think finally that, for our profession, all of us, I think, have been in a position over the last two decades to realize that modesty—in what we express, and what we think we can do—is probably becoming.

**Ms. Jochnick:** Thanks Professor Woodford for a very impressive paper. There is much food for thought in the paper. I cannot comment on everything in it, but since the Riksbank was mentioned here, and you have elaborated on it, I would like to give a view on how we have seen the forecasts we have been giving since 2007. The decision to publish the forecast on the repo rate came from a discussion with the market on what kind of assumptions for the repo rate the Riksbank was using in its own forecast for the economy, for GDP and inflation. As an open and transparent central bank, we thought it would be better to be transparent also on the repo rate path that we have in our own forecast.

In our view, I would like to say that the repo rate path has served us well. It has performed an important educational function. It's been easy for us to discuss with the market, and I think we have been very clear that it explains the executive board's view at the time of the decision of the repo rate, given the information that we have available. We have told the market that this is not a promise but a view that we have at this point of time. As a communication instrument, I would like to say it's been an advantage for us to publish the repo rate path. It's complicated to follow up and evaluate to what extent market expectations have been influenced by our repo rate paths. It is problematic to measure policy expectations through forward rates due to variations in risk premia. When we compare with surveys of policy expectations we can see that market expectations are closer to our repo rate path than to the market forward rate.

I would also like to mention that in the turmoil of 2009, we combined the forward guidance with quantitative measures, and we were at the time able to lower expectations of the future repo rate. I think there are pros and cons. From our perspective it has been a quite good experience. It's been an advantage to be able to communicate the repo rate path.

**Mr. Frenkel:** My comment refers to Charlie Bean's question on whether central bank governors (or monetary committee) can commit to a policy that pertains to a period beyond their own term in office. Implicit in this question was the implication that policy guidance that refers to a longer horizon is less credible. It is clearly true that currently serving policymakers cannot commit future policymakers to specific policy measures. However, such guidance can still be useful as it indicates to the market the degree of conviction that current policymakers have about their own policy stance. For example, when the Fed extended the period to which it believed that interest rates will be held low from 2013 to 2014, that extension strengthened the message of conviction about 2013 (even though a composition of the Federal Open Market Committee during 2014 might be different).

**Mr. Levy:** There is this presumption that more monetary accommodation will stimulate growth. In fact, as Adam Posen said, it's seems clear in the market place that forward guidance has brought down rates. As Adam points out, there have been positive effects on the financial channels, but we have to ask the following question. Here we are...banks are sitting on a trillion and a half dollars of excess reserves, bond yields are exceedingly low, and the economy is weaker than we would like. Chairman Bernanke talked about the headwinds, and if we looked at each of the headwinds he mentioned, none of them have to do with monetary policy and, in fact, none of them would benefit by lower rates or more high-powered money. So we have to ask the question, would more stimulus actually lift the economy and even if it would, is it appropriate? My view is there has been a shift in the aggregate demand curve due to nonmonetary factors, and we could break those down into policy factors: as Chairman Bernanke mentioned, fiscal policy; and some uncertainty about fiscal

policy; and some nonmonetary factors like the need for households to deleverage. So, in each of those cases, what is the appropriate role for monetary policy? Would more accommodation work, and even if it would work, is it appropriate?

**Mr. Woodford:** First, very quickly, I should respond to Governor Shirakawa and his comments on the Bank of Japan. I'm certainly aware of the fact that the Bank of Japan did also use interest rate guidance and, in fact, there is a discussion of that in the paper. I did not have time to mention it here. I cite several papers by Bank of Japan scholars, and other Japanese scholars, on the assessment of that experience. I think most of that work, including some previous work by Governor Shirakawa, has stressed—as he was just saying—that interest rate guidance seemed to be effective in that period. I agree with that, and I think that is basically consistent with the message of the paper, although Japan mainly came up in the context of the question of the desirability of pure quantity targets.

I also should also say something in response to the Deputy Governor of Riksbank. My comments about the Risksbank were not intended to suggest that publishing the repo rate path was a mistake. I think that it was an improvement in transparency. In the context of the kinds of projections that you were already publishing on other variables, while leaving mysterious what the interest rate assumption was, I think it was definitely an increase in transparency to be more explicit about that. What I'm really suggesting is that you should think about going further down the path of being as transparent as possible, by saying more about the decision process that would in fact determine future decisions, instead of simply giving the projections. At least that's what I was suggesting as a dimension along which there could be improvement. I was not really suggesting that things would be better if you somehow didn't release the repo rate projection.

Of the other issues, one that has come up repeatedly is the question of whether this proposal—to commit to a nominal GDP target—would run into a problem because it would result in higher inflation for a while, in a way that would be very damaging to the central bank's credibility. Don Kohn certainly mentioned this and several people were raising versions of that same concern. I take that

very seriously: of course it's true that it is easy in theoretical models, where you simply assume perfect credibility, to work out what the ideal equilibrium would be. But I think we do have to worry about this issue of credibility. I think, however, that there are big advantages to announcing a target path; that is, indicating what you are going to do further down the road, indicating at exactly what point it's going to be deemed appropriate to tighten policy as you approach the nominal GDP path. That way, if—in a transitional period—there were somewhat higher inflation, people would understand that that's completely consistent with believing in your commitment to contain inflation. And, therefore, they shouldn't have any higher expectations about longer-run inflation, simply because of what they are seeing transitionally.

I would be more worried about policies that swell the balance sheet dramatically *without* saying very explicitly how one is supposed to unwind the policy, *without* saying what exactly this leads to, in terms of a future policy regime. I would think that creates more of an issue of possible doubts about whether there is a commitment to keep inflation under control. In contrast, I think commitment to a particular target path, one that is clearly consistent with a moderate, long-run inflation target, is a way of addressing that problem.