Meeting of the Federal Open Market Committee on September 20–21, 2011

A joint meeting of the Federal Open Market Committee and the Board of Governors of the Federal Reserve System was held in the offices of the Board of Governors in Washington, D.C., starting on Tuesday, September 20, 2011, at 10:30 a.m., and continuing on Wednesday, September 21, 2011, at 9:00 a.m.

Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
Elizabeth Duke
Charles L. Evans
Richard W. Fisher
Narayana Kocherlakota
Charles I. Plosser
Sarah Bloom Raskin
Daniel K. Tarullo
Janet L. Yellen

Christine Cumming, Jeffrey M. Lacker, Dennis P. Lockhart, Sandra Pianalto, and John C. Williams, Alternate Members of the Federal Open Market Committee

James Bullard and Eric Rosengren, Presidents of the Federal Reserve Banks of St. Louis and Boston, respectively

Esther L. George, First Vice President, Federal Reserve Bank of Kansas City

William B. English, Secretary and Economist
Deborah J. Danker, Deputy Secretary
Matthew M. Luecke, Assistant Secretary
David W. Skidmore, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Scott G. Alvarez, General Counsel
Thomas C. Baxter, Deputy General Counsel

James A. Clouse, Thomas A. Connors, Steven B. Kamin, Loretta J. Mester, Simon Potter, David Reifschneider, Harvey Rosenblum, and David W. Wilcox, Associate Economists

Brian Sack, Manager, System Open Market Account

Jennifer J. Johnson, Secretary of the Board, Office of the Secretary, Board of Governors

Patrick M. Parkinson, Director, Division of Banking Supervision and Regulation, Board of Governors

Nellie Liang, Director, Office of Financial Stability Policy and Research, Board of Governors

Robert deV. Frierson, Deputy Secretary, Office of the Secretary, Board of Governors

William Nelson, Deputy Director, Division of Monetary Affairs, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Charles S. Struckmeyer, Deputy Staff Director, Office of the Staff Director, Board of Governors

Seth B. Carpenter, Senior Associate Director, Division of Monetary Affairs, Board of Governors; Michael P. Leahy, Senior Associate Director, Division of International Finance, Board of Governors; Lawrence Slifman and William Wascher, Senior Associate Directors, Division of Research and Statistics, Board of Governors

Andrew T. Levin, Senior Adviser, Office of Board Members, Board of Governors; Stephen A. Meyer and Joyce K. Zickler, Senior Advisers, Division of Monetary Affairs, Board of Governors

Daniel M. Covitz and David E. Lebow, Associate Directors, Division of Research and Statistics, Board of Governors

David H. Small, Project Manager, Division of Monetary Affairs, Board of Governors

Penelope A. Beattie, Assistant to the Secretary, Office of the Secretary, Board of Governors
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James M. Lyon, First Vice President, Federal Reserve Bank of Minneapolis

Jeff Fuhrer, Executive Vice President, Federal Reserve Bank of Boston

David Altig, Alan D. Barkema, Spencer Krane, Mark E. Schweitzer, Christopher J. Waller, and John A. Weinberg, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Kansas City, Chicago, Cleveland, St. Louis, and Richmond, respectively

Julie Ann Remache, Assistant Vice President, Federal Reserve Bank of New York

Eric T. Swanson, Senior Research Advisor, Federal Reserve Bank of San Francisco

Jonathan Heathcote, Senior Economist, Federal Reserve Bank of Minneapolis

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September 20 Session

CHAIRMAN BERNANKE. Good morning, everybody. This is a joint meeting of the Federal Open Market Committee and the Board. I need a motion to close the meeting.

MS. YELLEN. So moved.

CHAIRMAN BERNANKE. Thank you. Let me start by welcoming Esther George to the table. Tom Hoenig is still president of the Federal Reserve Bank of Kansas City for another 10 days, and so officially you're representing the Bank as first vice president, but at the next meeting, you will, of course, be succeeding Tom. You're well known to everyone around the table. You've been in the System a long time, and you have a great deal of high regard. So again, welcome and congratulations.

MS. GEORGE. Thank you.

CHAIRMAN BERNANKE. Our first item is "Financial Developments in Open Market Operations." Let me turn it over to Brian Sack.

MR. SACK.[1] Thank you, Mr. Chairman. Financial markets continue to be strongly influenced by concerns about economic growth prospects for the U.S. and other advanced economies, as well as perceptions of substantial risks surrounding the European sovereign debt situation. These factors led to considerable volatility in the prices of risky assets, large declines in interest rates, notable strains in short-term funding markets for some financial institutions, and greater market expectations that the Federal Reserve will deliver additional policy accommodation.

Although U.S. interest rates had already reached quite low levels at the time of the August FOMC meeting, they declined further over the intermeeting period. As shown in the upper-left panel of your first exhibit, the expected path for the federal funds rate derived from overnight index swaps now reflects an even later liftoff from the near-zero range.

Much of the downward shift in policy expectations came in response to the August FOMC statement, which indicated that the Committee expects economic

[1] The materials used by Mr. Sack are appended to this transcript (appendix 1).

conditions to warrant exceptionally low levels of the federal funds rate at least through mid-2013. That statement prompted implied short-term interest rates two years ahead to shift down by about 25 basis points, as investors interpreted the statement as indicating a lower probability that the federal funds rate target would rise before that time. Consistent with that interpretation, measures of implied volatility for interest rates around that horizon also declined notably in response to the FOMC statement.

Additional evidence on the change in investors' expectations is provided by the Desk's primary dealer survey. As shown in the upper-right panel, the perceived chances of the first increase in the federal funds rate target occurring before the third quarter of 2013 fell significantly, partly reflecting the forward policy guidance from the August FOMC statement. However, respondents still attached about 20 percent odds to the possibility that the first rate hike could occur before mid-2013, indicating that investors do not see the policy language as an unconditional commitment. Instead, market participants reportedly see the policy guidance as "raising the bar" for policy action before that time.

The sense that the federal funds rate target will remain at its current level for a long period was reinforced by the incoming economic data, which pointed to an economy struggling to find its footing. Indeed, since the last FOMC round, primary dealers slashed their GDP forecasts by roughly ½ percentage point per year for the period from 2011 to 2013 and raised their projections for the unemployment rate at the end of 2013 by nearly ¾ of a percentage point. Moreover, dealers see the uncertainty surrounding the GDP outlook as unusually high and view the risks as skewed to the downside.

Against this backdrop, Treasury yields moved down notably, as shown in the middle-left panel, with the largest declines in longer-term yields. The movement in longer-term yields was partly driven by increased expectations that the FOMC will implement some type of maturity extension program for the SOMA portfolio—one that would involve sizable purchases of longer-term securities. As I will review in detail later, market participants are now placing very high odds on such a move at this FOMC meeting.

At this point, longer-term real interest rates have reached extraordinarily low levels. Indeed, as shown to the right, the 10-year TIPS yield has been hovering around zero, which is well below its historical range. An alternative measure of the real long-term interest rate based on the difference between the 10-year nominal Treasury yield and a survey measure of long-term inflation expectations is also near zero, which is again quite unusual relative to its historical norms.

In my previous briefing, I noted that forward breakeven inflation rates had remained relatively high even as real interest rates had declined, suggesting that longer-term inflation expectations were well anchored. While that still appears to be true in general, there are some signs that those expectations are coming under downward pressure. As shown in the bottom-left panel, the five-year, five-year forward breakeven inflation rate fell notably over the intermeeting period, moving about halfway back to the levels seen last summer. Moreover, as shown to the right, measures of the perceived odds of a sustained deflation derived from TIPS have risen some.

Investors' concerns about economic growth prospects weighed on financial markets more broadly, contributing to considerable volatility in risky asset prices and a general sense of unease among market participants. The negative sentiment in markets was exacerbated by the substantial risks that investors see surrounding the situation for European sovereign debt and financial institutions.

Broad equity indexes, shown in the upper-left panel of your second exhibit, managed to move higher over the intermeeting period. However, these gains come on the heels of the very steep declines that were observed ahead of the August meeting, leaving the S&P index still about 10 percent below its levels in July. Moreover, as shown to the right, the volatility of daily changes in equity prices was the highest observed since early 2009, and measures of anticipated volatility, such as the VIX, have also been elevated.

Returning to the upper-left panel, the downward movement in equity prices over the past several months has been particularly sharp for financial institutions. Investors are concerned not only about the effects of weaker economic growth prospects on bank profits, but also about legal risks associated with mortgage-backed securities and spillovers from financial stress in Europe. Corporate bonds and other private debt instruments have also priced in a riskier environment, with corporate yield spreads widening to their highest levels since late 2009. Corporate bond issuance by speculative-grade firms nearly came to a halt over the past month or so.

As noted earlier, the situation in Europe remains a key focus of market participants. Steve Kamin will review European developments in greater detail in his briefing. The abridged version is that investors do not know the endgame for Greek sovereign debt, they are not convinced that a sufficient backstop exists for the Spanish and Italian sovereign debt markets, they see uneven progress toward fiscal consolidation and economic reform where needed, and they are concerned about the potential capital shortfalls for financial institutions that may arise from their exposures to these markets and economies.

Among the key risks, market participants in recent weeks have had to contend with uncertainty about whether Greece will meet the necessary criteria for additional disbursements of funds. Investors are not confident that a substantial debt restructuring is avoidable in the near term, pushing two-year yields on Greek debt as high as 75 percent at one point.

Market pressures were also present for Spanish and Italian sovereign debt. The ECB began conducting secondary-market purchases of Spanish and Italian debt in early August, which, as shown in the middle-left panel, initially managed to reverse the widening of yield spreads that had been observed before that time. However, yield spreads on Italian and Spanish debt have again widened in recent weeks, raising questions about the strength of this backstop. The ECB has purchased more than €80 billion of sovereign debt since the August announcement, bringing the total size of the securities purchase program to €150 billion.

The ECB seems intent on handing these responsibilities over to the EFSF. However, European officials are still working to put in place the July 21 agreement to increase the capacity and scope of the EFSF. Moreover, market participants already view that package as insufficient to provide capital to banks as needed and to provide a credible backstop for the sovereign debt of Italy and Spain.

The challenges surrounding sovereign debt dynamics and the concerns about European banks are now being exacerbated by what appears to be a sharper slowdown in European economic growth than investors had anticipated a few months ago. Against this backdrop, broad equity indexes in Europe have fallen substantially, far outpacing the declines in U.S. equity prices, as shown to the right. Share prices for European banks have fallen even more abruptly, and their CDS spreads have widened, reflecting investors' concerns about the health of these institutions.

Such concerns have led to significant strains in funding conditions for many European banks. Money market funds and other investors have continued to pull back from providing unsecured dollar funding to many institutions. At this point, with the exception of a short list of top-tier banks, all unsecured funding has collapsed to maturities of one week or less. Banks that instead rely on obtaining dollar funding by borrowing in euros and using the FX swaps market to convert to dollars have seen their implied funding cost move up sharply, as shown in the bottom-left panel.

A few signs of pressure have even emerged for secured funding markets. It has become more difficult to borrow against less liquid collateral, with investors requiring over-collateralization and higher rates for some transactions. Moreover, there are some instances of investors cutting off secured funding against all types of collateral for particular European counterparties. More broadly, however, secured funding markets for more-liquid collateral have remained unimpaired for most participants. Moreover, U.S. financial institutions continue to have adequate access to term funding even on an unsecured basis. Thus, the situation does not represent a widespread seizing-up of funding markets, but there are considerable risks that funding pressures could become worse and more widespread.

In response to the intensifying dollar funding strains for European institutions, the ECB, the Bank of England, and the Swiss National Bank announced that they would begin offering 84-day dollar funding operations in mid-October, using the liquidity swap lines that are in place with the Federal Reserve. We believe that the presence of these lines and the associated dollar operations have helped limit the deterioration in dollar funding conditions, because market participants know that a backstop is in place. The introduction of 84-day operations should serve to strengthen this role. The market response to the extension was favorable, with European bank share prices rising and funding costs in the FX swaps market coming down immediately following the announcement.

With downward revisions to the growth outlook and considerable pressures on European debt markets, the euro weakened against the dollar over the period since the last FOMC meeting, as shown in the bottom-right panel. Moreover, the current pricing of risk reversals shows increased demand for protection against significant euro depreciation relative to the dollar over coming months. The broad dollar exchange rate also moved higher over the intermeeting period.

Your final exhibit provides an update on the evolution of the SOMA portfolio to date and takes a closer look at expectations for additional monetary policy actions based on the Desk's primary dealer survey.

As shown in the upper-left panel, the total amount of domestic securities in the SOMA portfolio has held relatively steady at approximately $2.6 trillion since the end of the asset purchase program in June. The MBS holdings in the portfolio continue to be paid down, bringing them to $885 billion, and agency debt holdings have fallen to $110 billion. The majority of the SOMA portfolio is in Treasury securities, with our holdings at nearly $1.7 trillion, or just over 60 percent of the portfolio.

Of course, the SOMA portfolio has reached these levels because of the asset purchase programs that were implemented in recent years. When considering the policy channel through which the SOMA portfolio can affect financial conditions, we often focus on the aggregate amount of duration risk that the SOMA has assumed and hence has removed from the portfolios of private investors. One measure of this duration risk is 10-year equivalents, or the amount of 10-year Treasury securities that would have the same duration risk as the aggregate portfolio. As shown by the dark blue line in the upper-right panel, the asset purchase programs in total have raised the amount of 10-year equivalents in the SOMA portfolio by roughly $1 trillion.

This increase in the amount of 10-year equivalents in the SOMA portfolio in large part reflects the growth in the size of the portfolio. However, a portion of it comes from the increased average duration of the assets held in the SOMA as a result of the asset purchase programs. The figure attempts to parse these two components by showing how the amount of 10-year equivalents would have evolved had the portfolio been expanded without the extension of duration. This series, shown by the light blue line, suggests that the size of the portfolio alone accounts for roughly two-thirds of the increase in 10-year equivalents. The remainder of the effect is driven by the average duration of SOMA assets, which increased from the typical levels of two to three years before the financial crisis to around four years today.

Without any additional policy actions, the amount of 10-year equivalents in the SOMA portfolio would remain around its current level. However, market participants appear to see a high probability that the FOMC will take steps over the near term to achieve additional policy accommodation. As shown in the middle-left panel, the Desk's primary dealer survey asked respondents for the odds that they place on various policy measures that have been discussed in FOMC communications.

While dealers placed meaningful odds on a variety of policy measures, those expectations were overwhelmingly skewed toward a maturity extension of the SOMA portfolio. The median respondent placed 75 percent odds on such an action occurring over the next year. Moreover, 16 of the 20 dealers indicated that their baseline forecast included the announcement of a maturity extension program at this meeting.

A maturity extension program would, of course, operate through the average duration of the SOMA portfolio rather than its overall size. The median respondent to our survey expected such a program, if adopted, to involve sales of Treasury securities with maturities of 0 to 3 years and purchases of securities with maturities of 7 to 30 years. Most respondents expected the program to be between $250 billion and $500 billion in size.

The anticipation of such a program has been apparent in the recent movements in longer-term Treasury yields, as I mentioned earlier. As shown in the middle-right panel, the largest declines in Treasury yields over the intermeeting period took place at the longest maturities. Moreover, those yields at times demonstrated an unusual degree of sensitivity to negative economic news. Most notably, the response of the 30-year yield to the employment report released earlier this month was 3 to 4 standard deviations larger than its typical size, presumably because the weak reading on payrolls significantly raised expectations for a maturity extension program.

Returning to the left panel, one can see that respondents also placed fairly substantial odds on other policy steps over the next year. Respondents saw a 45 percent chance that the FOMC would offer explicit guidance over the path of the balance sheet. In addition, they saw a 40 percent chance that the FOMC could expand the balance sheet over the coming year. In their written comments, several dealers indicated that they saw balance sheet expansion as the likely contingency plan should the maturity extension program prove insufficient to improve the course of the economy.

The discussion of balance sheet expansion among market participants almost always assumes that the purchases will be in Treasury securities. However, a few mortgage desks have discussed the possibility of additional purchases of mortgage-backed securities. Some have pointed out that the MBS spread over Treasuries, shown in the bottom-left panel, has moved up notably and is now above its historical average. A few market participants have also considered the possibility that the FOMC would decide to conduct coupon swaps out of higher-coupon MBS and into the production coupon as a way of lengthening the duration of MBS holdings in the SOMA.

Returning again to the middle-left panel, respondents to our survey also saw a cut in the interest rate paid on reserves as a possibility, with about 25 percent odds assigned to that outcome over the next year. The majority of respondents thought that this action, if taken, would involve lowering the IOER rate to 10 basis points or 12.5 basis points, with only 20 percent of the respondents assuming that the IOER rate would be cut all the way to zero.

Lastly, respondents placed meaningful odds on further changes to the guidance for the federal funds rate. In their written comments, most suggested that this change would take the form of explicitly identifying the thresholds for unemployment and inflation that could prompt an increase in the policy rate, consistent with the possibility raised in the FOMC minutes.

Because respondents fill in their economic projections in the survey, it was straightforward for us to ask about the economic conditions that they expected to be in place at the time of the first increase in the federal funds rate target. In addition, we asked for a range of alternative economic conditions that, in their view, would prompt the FOMC to initiate increases in the federal funds rate. The average responses are shown in the bottom-right panel, plotted as combinations of the PCE inflation rate and the unemployment rate.

The locus of points suggests that respondents see a tradeoff between the variables—that is, the FOMC would wait for a lower unemployment rate if the inflation rate were lower. Such a tradeoff is what one would expect if the FOMC were setting policy along the lines of a Taylor-type policy rule. The point forecasts for the liftoff tended to fall around the middle of this locus, with most respondents expecting it to take place at an inflation rate of around 2 percent and with the unemployment rate somewhere between 7.5 and 8 percent. Thank you.

CHAIRMAN BERNANKE. Thank you. Questions for Brian? President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Brian, I'd like to get more clarification on your discussion of the breakevens and probabilities of deflation. A number of things are going on here, clearly. There are the effects of declining projections of real growth, perhaps, and a lot of evidence of flight to quality from Europe into safe Treasury securities, all of which potentially confuse the signals on the breakevens here and how we think about them. So can you talk more about that—what you really believe these changes in the breakevens might be signaling and how we can decompose that, if at all? And I would ask another question about the probabilities of deflation that have arisen from the TIPS. If I go to, for example, our SPF surveys, those probabilities really haven't changed that much. They're still much closer to 10 percent than to the 20 percent in the TIPS, which suggests to me there's some differential here. I'd like to hear you talk more about those effects and the interpretations.

MR. SACK. Certainly. I think those are very good points. As always, we want to look at these market indicators of inflation expectations and inflation risks as having some noise, and we want to look at the collective evidence on inflation expectations, clearly. And in the current circumstances, there are some factors that could be contributing to the downward movement in the breakeven inflation rates. You mentioned the flight to quality as one possibility, which I think is important, and another one that's been discussed is the expectations of the maturity extension program. If it would be concentrated in nominal securities, the perception is that it could also be contributing to the downward movement. Having said that, it's moving down pretty aggressively. It's moving down at a time when markets in general are becoming more concerned about growth. I think to some extent, this likely does reflect some shift in the fundamental perspectives about inflation risks. And lastly, I'll just comment that you're correct that the survey evidence generally suggests a more stable outlook for inflation expectations and inflation risks, but we've generally found that the surveys often demonstrate more stability than we think perhaps represents the true views on risks. So maybe we want to look at the evidence as somewhere in between the surveys and the market-based measures.

VICE CHAIRMAN DUDLEY. Can I ask a follow-up question, Mr. Chairman?

CHAIRMAN BERNANKE. Okay. Vice Chairman.

VICE CHAIRMAN DUDLEY. How about if we look at the TIPS market itself? You have TIPS yields in terms of the probability of deflation within a TIP that's already booked a bunch of inflation versus a newer one.

MR. SACK. Yes.

VICE CHAIRMAN DUDLEY. What does that show?

MR. SACK. Well, that's what the measure in the bottom right is. That's a very good point. It wouldn't be distorted by these differences.

VICE CHAIRMAN DUDLEY. That shouldn't be distorted by liquidity and things of that sort.

MR. SACK. That's right. I think for the measure in the bottom right, distortion to the implied deflation is less of a concern. Probably for the five-year, five-year forward breakeven rate, some of the considerations you raised are relevant, though.

VICE CHAIRMAN DUDLEY. Thank you.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Excuse me. Could you explain how this is taken out of the TIPS?

VICE CHAIRMAN DUDLEY. Well, you have some TIPS securities that have been outstanding for a while, and there's a bunch of inflation that's accrued, and so if you get deflation from here, that still gets embedded in the price—you give back that inflation that you've achieved because it's been outstanding for a while. But if a new TIP has just been issued, you have deflation from here; you don't have to give that back.

MR. LACKER. I've got you. It's a different basis.

VICE CHAIRMAN DUDLEY. Yes, exactly.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. This is just a comment, Mr. Chairman, but you gave a speech in October 2003, which was titled "Monetary Policy and the Stock Market: Some Empirical Results," and you spoke of how—and I loved the particular word that you used because it had such emotion to it—the market "quivers" as they await the FOMC's decision. And you concluded, obviously, that FOMC decisions can move markets. I'm interested, in listening to Brian today and the past many, many reports we've had—really, beginning with your third slide, you talked about the market's anticipation of our lengthening of duration. So we've moved from the meeting itself to expectations of what we'd accomplish at the meeting, which are oddly correlated with what we're actually contemplating. And we might be tempted to conclude that these quivers, or whatever you might call them, would then lead to tremors if we don't act according to what the market's expecting.

I guess the question I have is, is there a way we can better understand this? There's an uncanny resemblance, as I said earlier, to what we're actually discussing and what markets are thinking about, and then we are tempted, perhaps, to live in fear that if we don't deliver according to market expectations, we'll have a very harsh reaction. In other words, markets are anticipating quivering before we act rather than upon our action, as you articulated so well in 2003. I don't think things have changed that much since 2003. There's more information, the net is much more thorough, we have more market operators, et cetera, but something is amiss here. And I wonder if we could at least think about that. Maybe the Board staff or a group of us could form a committee to get a better feeling for how this is happening, what it means, and whether it is affecting the way we make decisions? Because I'm concerned about that—and this isn't a criticism of you, you're just reporting what you're finding in the marketplace—from slide 3 onward to the very last one. That's one point. The second point—and it's most un-central-bank-like, it's un-Bagehot-like—is that they're expecting us to move into assets that everybody else is demanding right now—until you got to your mortgage-backed security slide. Those are just observations, but I'm very concerned that we might be influenced by market expectations. I'm not sure how those market expectations are built, but things have progressed a little bit, Mr. Chairman, since that speech in October 2003, which I thought, for the record, was a very good speech.

CHAIRMAN BERNANKE. Thanks. First of all, I think we all agree that the FOMC makes policy based on our economic outlook, and the markets have to adapt to that. There's a bit of an observational equivalence, though, between markets in some sense forcing policy actions and markets simply receiving good communication. We have become more transparent in the past eight years or so. Our minutes, for example, have been a big source of information. I recall very well the debates we had about moving the minutes, which used to be after the subsequent meeting, into the intermeeting period. Of course, the minutes describe the options and the discussion, and so I think that would be one mechanism. I take your point, and would emphasize that as conditions warrant, we need to act appropriately, but I do think part of it, at least, is coming from us guiding the markets in various ways in terms of what to anticipate.

MR. FISHER. Or transparency.

CHAIRMAN BERNANKE. And to the extent that that's true, it's a sign of success that we are transparent and communicating effectively. Other questions? Vice Chairman.

VICE CHAIRMAN DUDLEY. If I could amplify on your remarks—because I used to do this—I would comment that basically the people in the market are trying to think along with the Fed. They're trying to think, "Well, if I were in their shoes, what would I do?" And I believe this has been the case for many years. It's just a little bit more vivid now because we're engaged in using policy instruments that we haven't used historically, but believe me, for the past 20 years, people have been thinking very hard about, "Is the Fed going to move at this meeting. If they're going to move, how much are they going to move?" And that's all been priced in. I completely accept your point that at the end of the day, we have to do what is appropriate, not just because the market has priced it in. But regarding the convergence of the marketplace and our actions, I don't think it's surprising in the sense that the market is observing us and learning from us and solving for what our reaction function is.

MR. FISHER. Again, because both of us used to do this for a living, I think you're right. I think what the Chairman said is most important. We let what is in the best interest of the real economy guide us, not what the markets expect us to do at any one meeting. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Other questions? President Kocherlakota.

MR. KOCHERLAKOTA. Yes, thank you, Mr. Chairman. Brian, I just have a quick factual question, which is, how much usage of the ECB swap lines has there been so far?

MR. SACK. Very little. There was just over $500 million in last week's operation from two institutions. It's possible that with the 84-day operation, there will be more usage. The pricing of obtaining dollar funding for three months is actually very close to the price of the swap line.

MR. KOCHERLAKOTA. Oh, I see.

MR. SACK. Whereas the current operations are 7-day operations, most firms, even under strained market conditions, can get funding in the markets much cheaper than the pricing of the swap lines. So we will see in mid-October if usage picks up with these new operations.

MR. KOCHERLAKOTA. Thanks. That was very helpful.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The difference between the maturity extension program and an equivalent-sized quantitative easing is that with the quantitative easing, we issue more reserves, and with the maturity extension program, we force the private sector to absorb, instead of reserves, more two-year securities. With our policy guidance, two-year securities are trading roughly under 20 basis points, and so they seem like virtually perfect substitutes for reserves. I'd be interested in the Desk's insight into the differences between those two. How much different would it be for us to force them to hold more two-year securities than it would for us to force the market to hold more reserves?

MR. SACK. In general, I think those are substitutes, and the staff would say that there won't be much of a difference in the effect on markets in terms of whether reserves are issued or two-year and other short-term Treasuries are sold. There are some differences, of course, though. The reserves have to reside in the banking system, and the Treasuries, instead, can be more broadly held. So to the extent that leverage ratios matter or other bank-specific behavior matters, you do have a difference there. But I think we would agree with the broad sense of your question. We see the mechanisms of maturity extension or asset purchase programs as being similar, with the effect coming more from the assets that are purchased than from the way they're sterilized or whether they create reserves or two-year Treasuries.

CHAIRMAN BERNANKE. It's a nice test of the two different theories of balance sheet expansion. Is it reserves or is it the asset side? Governor Raskin.

MS. RASKIN. Yes. Just a question, Brian, regarding the New York policy survey. In terms of the probabilities of additional policy actions, we are seeing a relatively high probability on providing SOMA guidance, and I was wondering if you could talk about your sense of what the participants in this survey are looking for. I think you said that they seem to be looking for explicit guidance on the path of the balance sheet, but of course, we've put out principles regarding how we would conduct an exit strategy. So my question is whether you can shed any light on what else they seem to be looking for.

MR. SACK. Some respondents just think it's a simple and logical step to put more of that guidance into the FOMC statement. The FOMC statement right now obviously has very strong guidance on one policy instrument and virtually none on the other, if you consider the other to be the balance sheet. Having said that, I completely agree that with the exit strategy that the minutes have laid out, the guidance on the short rate is, in effect, providing them with guidance on the balance sheet. So that may limit the effectiveness of this step, but I think respondents to the survey just see it as a logical step and maybe one that could have at least some beneficial effect.

CHAIRMAN BERNANKE. Other questions for Brian? [No response] All right. We need to vote to ratify domestic open market operations since the last meeting.

VICE CHAIRMAN DUDLEY. So moved.

CHAIRMAN BERNANKE. Thank you. Without objection. Okay. The next item is a discussion of alternative policy tools. We'll start with a staff presentation. Our presenters are Julie Remache, Seth Carpenter, and Dave Reifschneider. Who's going to go first?

MS. REMACHE.[2] I am. Thank you, Mr. Chairman. In a memo provided to the Committee ahead of this meeting, the staff presented three options for managing the SOMA portfolio in order to provide additional monetary policy accommodation: a reinvestment maturity extension program, a SOMA portfolio maturity extension program included in alternative B in Book B of the Tealbook, and a long-maturity large-scale asset purchase program included in alternative A.

The intention of each of these options is to remove duration risk from the holdings of private investors, thereby putting downward pressure on longer-term interest rates and making broader financial conditions more supportive of economic growth. However, the amount of duration risk removed and the manner through which that occurs differ across the three options. The two maturity extension options maintain the current size of the portfolio while shifting its composition toward longer-term Treasury holdings, while the long-maturity LSAP option expands the size of the portfolio while shifting its composition.

[2] The materials used by Ms. Remache, Mr. Carpenter, and Mr. Reifschneider are appended to this transcript (appendix 2).

Under the reinvestment maturity extension program, the reinvestment of principal payments from agency securities is shifted into Treasury securities with greater than six years to maturity. This policy is assumed to remain in effect until redemptions begin. As can be seen in your first exhibit, in the top-left chart by the dark blue line, this policy maintains the portfolio at its current level and leads to only a modest shift in the path of the SOMA once exit commences. The average duration of the portfolio, shown by the dark blue line in the chart to the right, moves up to five years by late 2012, about a half-year longer than in the baseline scenario.

The maturity extension program (MEP) of alternative B would involve $400 billion of long-term Treasury security purchases and a similar amount of short-term Treasury security sales, in addition to lengthening the maturity of reinvestments of agency securities. Under this alternative, the size of the SOMA would again stay steady. However, as can be seen in the top-left chart by the light blue line, it implies a more distinct departure from the baseline over time. The average duration of the portfolio would increase markedly, reaching nearly 6½ years, as shown in the top-right panel. Because of the longer average maturity, the portfolio would not run off as quickly during the exit period. Indeed, it would be as much as $450 billion higher than in the baseline and would take 15 months longer to return to steady state.

The long-maturity LSAP of alternative A would add $1 trillion in Treasury securities to the balance sheet, in addition to lengthening the maturity of reinvestments of agency securities. The red line in the top-left chart shows the increase in the SOMA. The average duration of the portfolio moves up, but by much less than under the MEP. Once exit commences, the SOMA runs off more quickly; however, given the higher starting level of the portfolio, it reaches its steady-state size at about the same time.

The middle-left chart shows the path of the SOMA in 10-year equivalents—a measure of the dollar value of duration risk. The chart shows that both the MEP and the LSAP add a considerable amount of additional duration risk to the SOMA portfolio, with the MEP operating more by shifting the average duration of the SOMA and the LSAP operating more by increasing the size of the SOMA. By contrast, the reinvestment option by itself adds only modestly to SOMA duration risk.

As shown to the right, the MEP and LSAP have similar effects, reducing the 10-year term premium by roughly 20 basis points and 25 basis points, respectively. These figures are somewhat larger than the estimated 15 basis point effect of the LSAP that ended in June. FRB/US simulations suggest that either of these programs would lower the unemployment rate about ¼ to ½ percentage point and boost core PCE inflation about ¼ percentage point. Of course, as Brian noted, market participants place relatively high odds on a maturity extension program, and hence a sizable portion of the interest rate effect may already have been realized. The reinvestment option has considerably more modest effects on rates and therefore on the economy.

The broad contour of Federal Reserve income over the projection period is similar under the MEP and LSAP alternatives, although there are some important differences in its trajectory and sensitivity to interest rate movements. The bottom-left panel shows our projections for remittances to the Treasury under each scenario. Relative to the baseline, both the MEP and LSAP would result in an increase in remittances to the Treasury through 2014, driven by higher interest income on Treasury holdings. Thereafter, income would be lower as a result of higher interest expense. In the longer run, income under these alternatives remains depressed because of the higher proportion of securities acquired during the current low yield environment. Under all scenarios, remittances remain positive and trough at levels close to those prevailing before the crisis.

The bottom-right panel examines the results under an adverse rate scenario in which the FOMC tightens earlier and long-term interest rates run as much as 175 basis points higher than the baseline. In the LSAP scenario, which is the most adverse, remittances to the Treasury would cease for a period of four years, resulting in a deferred credit asset on the balance sheet peaking at about $50 billion in 2016.

Before closing, I should highlight two additional points about the balance sheet options presented. First, under the MEP or LSAP, the SOMA would own approximately 40 percent of all Treasury securities with greater than six years to maturity, with many securities at our 70 percent limit. The Federal Reserve has never held such a high proportion of long-term securities, and we think that holdings of this proportion have some risk to cause a deterioration in market functioning.

Finally, it is worth repeating that all of the estimates presented here are subject to a high degree of uncertainty, particularly those around the market and economic effects. In particular, we presented results based on a portfolio balance model, which implies that it is only the overall quantity of interest rate risk that matters in determining the market effect. If instead there is more market segmentation across maturity points, then there would be more difference between the LSAP and MEP programs, as we also purchase short-term securities in the LSAP program. I'll now turn it over to Seth to discuss IOER.

MR. CARPENTER. Thank you. The Committee also received a memo about the implications of lowering the interest rate paid on excess reserves (what we refer to as the IOER rate) to zero or to some positive value, such as 10 basis points. I should note that I'm referring to what's labeled "Exhibit 2." It's a set of bullet points to help you follow along. Lowering the IOER rate would likely push down money market rates and, by lowering the expected future short-term rate, should also put some downward pressure on longer-term interest rates. The overall effect would likely be quite modest, however, because money market rates are already near zero, and there are some impediments to some of these interest rates falling below zero. For example, it is unlikely that the federal funds rate would ever trade at negative rates; however, other instruments, such as Eurodollars, GC repo, and Treasury bills, have traded at negative rates in the past and could do so in the future.

Lowering the IOER rate should, all else being equal, provide banks with an additional incentive to lend, because any individual bank could fund additional lending by running down its reserves and leaving the overall size of its balance sheet unchanged. However, surveys over the past couple of years suggest that banks see a paucity of qualified borrowers, so a modest reduction in their opportunity cost of lending may have only modest effects on their overall quantity of lending.

Lowering the IOER rate might also mitigate the reputational risk to the Federal Reserve from the appearance of paying a subsidy to banks. That risk may be heightened because the rise in reserve balances that came from the LSAP program initiated in November 2010 has been concentrated at branches and agencies of foreign banks and because, since the spring, with the adjustment in the FDIC's insurance assessment, market rates have fallen further below the IOER rate. Reducing the IOER rate to zero would clearly eliminate any possible subsidy. Reducing the IOER rate to 10 basis points would at least result in the Federal Reserve paying interest to banks at a rate that is somewhat more in line with other safe, short-term assets.

Of course, reducing the IOER rate, particularly to zero, has potential costs, including disruptions to money markets and the intermediation of credit. If short-term interest rates decline further, money market funds could come under additional pressure, and the industry would likely contract further. The large volumes of funds intermediated though money market funds might have to be redirected, with the ultimate investors potentially switching to other assets and the ultimate borrowers finding alternative sources of funding. If such shifts were abrupt, and borrowers could not find ready alternative sources of funding, disruptions to market functioning could ensue.

There could be, in particular, implications for the federal funds market as well. The federal funds market consists of banks borrowing from institutions that cannot earn interest on reserves, primarily the Federal Home Loan Banks, in order to arbitrage the IOER rate. If the IOER rate were cut, especially to zero, banks would lose the incentive for this trade. The federal funds market would likely contract significantly, and the effective rate could become erratic, perhaps becoming less well correlated with other market rates and even possibly rising outside of the target range.

Investors might react to lower money market rates by leaving large deposits with their banks. Given balance sheet pressures, other banks might follow the lead of Bank of New York Mellon and begin imposing explicit negative interest rates on deposits. If such a pattern became widespread, policymakers might be concerned about creating hardships for households and other savers and, as a result, run a different reputational risk.

Finally, the U.S. Treasury debt auctions cannot accept negative bids. If Treasury bills were persistently trading at negative rates, bidding at auctions could be distorted, with a likely stop-out rate at 0 percent, and the primary dealers would instantly realize a risk-free profit from the Treasury. That concludes my remarks. I turn it over to Dave.

MR. REIFSCHNEIDER. Thanks. Turning to your third exhibit, one of the memos we distributed to you last week explored a variety of issues related to forward guidance. The top panel considers one of those issues: the market's reaction to the additional guidance you provided in the August statement—specifically, the indication that "the Committee currently anticipates that economic conditions . . . are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013." As noted in the first bullet, this guidance reduced the perceived odds that policy would begin tightening before mid-2013, as evidenced by a downward revision to the expected path of the funds rate implied by futures; uncertainty about the future path of the funds rate also fell. Together, these developments led to a moderate decline in longer-term Treasury yields. In addition, as Brian noted earlier, market commentary since the August meeting suggests that investors understand that the Committee's forward guidance is conditional, and that the timing of the onset of tightening is not tied to a specific date but will depend on the evolution of real activity and inflation over time. That said, investors are unclear about the specific conditions that would warrant tightening. In this regard, the latest Desk survey suggests market participants anticipate that the unemployment rate will be close to 8 percent and the inflation rate around 2 percent when you first begin to tighten—conditions that may or may not be consistent with your policy intentions.

This market uncertainty about future policy suggests that you may wish to consider ways to clarify your forward guidance further, such as providing quantitative information about the conditions that would influence the decision as to when to begin tightening. As noted in the middle panel, such clarification could better align market expectations for monetary policy with the FOMC's intentions and reduce uncertainty about future policy actions. If so, that guidance could be stimulative to the degree that the public currently underestimates your willingness to pursue accommodative monetary policy over the medium term. Beyond that, such guidance could make investors' responses to incoming data on the economy, and thus the accompanying movements in longer-term interest rates and other asset prices, more consistent with the Committee's actual reaction function.

One way of providing more specificity about the factors influencing the Committee's actions might be to announce specific unemployment and inflation "threshold" conditions for keeping monetary policy exceptionally accommodative. Under this approach, the Committee could indicate its intention to keep the federal funds rate near zero at least as long as unemployment was above, say, a 7 percent threshold and the medium-term outlook for headline inflation remained below a 2½ percent threshold. As the memo discusses, the use of threshold conditions raises a number of issues, one of them being the potential for confusion about the Committee's long-run objectives. To avoid such confusion, as well as to help more firmly anchor long-run inflation expectations, the Committee might also wish to release quantitative information about both its long-run inflation goal and its projection of the level to which the unemployment rate will converge over time.

In addition to considering these communication issues, the memo also explored the potential benefits and costs of additional forward guidance using simulations of the FRB/US model; the bottom panel summarizes the results from this exercise. Our analysis suggests that the Committee could potentially provide modest near-term stimulus if it committed to keeping the funds rate near zero as long as specified thresholds for unemployment and inflation were not breached. In the simulations, the effectiveness of such guidance rests on two conditions. First, the announced policy must be credible, in that the public must be confident that future FOMCs will follow through on that guidance. Second, the guidance must indicate an appreciably later liftoff than currently expected by the public. The simulation results suggest the Committee probably should not expect much additional stimulus from this strategy unless it acts fairly aggressively by, for example, announcing its intention to keep the federal funds rate very low as long as unemployment is above, say, 6½ percent and the medium-term outlook for inflation is below 2½ percent.

In the simulations, forward guidance of this sort provides only modest stimulus because it alters expectations only for the likely date that policy firming will begin and not for the average stance of policy thereafter. But the announcement of thresholds might in fact change longer-run expectations more dramatically, particularly if supplemented with guidance about the pace at which the federal funds rate will be normalized after liftoff. If credible, such longer-term guidance could potentially yield more pronounced expectationally driven changes in financial conditions and other factors, and thus appreciably more stimulus. Additional model simulations reported in the memo suggest that if the Committee could convince the public of its intention to pursue policies later in the decade that are only somewhat more gradualist than the public would otherwise expect, it could bring about a noticeably faster decline in unemployment than in the baseline forecast, accompanied by inflation running modestly above 2 percent for a time. Such an outcome would be similar to the optimal policy simulation results reported in the Tealbook.

The memo also considered the robustness of this sort of forward guidance to unexpected economic developments. This analysis suggested that, while unconditional commitments to keep the federal funds rate near zero until some specified date are highly problematic, conditional forward guidance in the form of announced thresholds for unemployment and inflation appears to do reasonably well in a wide range of circumstances, including ones where policymakers significantly overestimate the amount of slack in the economy.

The final page of your handout reproduces the questions that were distributed to the Committee last week. During the go-round this morning, you may want to address these questions in the context of your remarks. Thank you; this concludes our presentation. We would be happy to take your questions.

CHAIRMAN BERNANKE. Thank you very much for a concise presentation of a much more detailed set of memos, which were very helpful, and I thank you for that as well. Before we go into a go-round, let's have a question period. Are there any questions for the staff? President Rosengren.

MR. ROSENGREN. Yes, thank you very much for a very complete set of memos. I do have a question on the interest on excess reserves memo—probably not surprising. After rereading your memo again this morning, I looked at the H.8 for foreign-related institutions in the United States, and the cash assets, which include reserves, were $943 billion; Treasury securities, were roughly $100 billion. I can't from that look at how much excess reserves are actually being held. Do you have the percent of excess reserves actually being held at branches and agencies?

MR. CARPENTER. I don't have that on me.

MR. ROSENGREN. Ballpark?

MR. CARPENTER. Yes, it's getting up close to just under half of the total quantity.

MR. ROSENGREN. Half of the excess reserves of the foreign branches—

MR. CARPENTER. Most of the roughly $600 billion increase from the second LSAPs, in dollar terms, went to the foreign branches and agencies, in an adding-up sense. So it's a good portion of it.

MR. ENGLISH. On September 7, the numbers that I have show about $800 billion at the foreign DIs and about $700 billion at domestic.

MR. ROSENGREN. Just a second part to that question. There's been a big change in how foreign branches have been used in the United States. A year ago in August, they were supplying $323 billion over to Europe or over to their parents, which is more typical. They tend to raise funds in the United States, and send it over to their parent. More recently, though, that's reversed, and it was a $500 billion switch between last year and this year. So they're now receiving on that September 7 date $238 billion from the parent. That's a very big swing. As I was trying to understand why that swing would occur—and President Lacker's observation is relevant—I noted that three-month T-bills are paying 1 basis point; six-month T-bills, 2 basis points; and a two-year Treasury is paying 16 basis points, very close to the 20 basis points that he mentioned. If, for example, a French bank is holding two-year Treasury securities at 20 basis points in order to be able to meet potential liquidity needs but has an option with a branch to hold reserves at 25 basis points in the United States, then it seems as though the strategy would be to sell the two-year Treasury security and put the funds in a branch getting 25 basis points. By doing so, they get a higher return and reduce the duration risk of their portfolio, and that seems to be reducing the demand for medium-term Treasury securities because they're choosing to hold overnight reserves paying a higher return with lower duration risk rather than holding medium-term Treasury securities. To what extent is our holding the reserve rate so high having an impact that is counter to what we're trying to do with medium-term Treasury securities? Is it discouraging demand for medium-term Treasury securities, particularly by foreign banking organizations? Do you have any observations on whether you're seeing that kind of trend actually occurring? And to what degree do you think that's important?

MR. CARPENTER. I guess I would offer the following. The transmission channel that you described about the switch in the funding position of the branches relative to their headquarters overseas is consistent with the anecdotal reports that we are hearing. And you can think about the reasons for this working independently and then reinforcing each other, with reserves being an attractive asset, paying more than other perfectly safe things, and the foreign supervisors wanting there to be more dollar-denominated liquidity on their books for liquidity reasons. We're definitely hearing that story. I think there are a couple of different ways it could matter in terms of the effect on other market rates and intermediate-term market rates. The story that you told where there is reduced demand for two-year Treasuries and increased demand for reserves would tend to push up the two-year rate closer to the IOER rate. But that's in some sense just the more general point that the rate paid on reserves affects short-term rates and things that are close substitutes. To the extent that it's higher than it might otherwise be, if 25 basis points is higher than zero, then presumably if the IOER rate fell to zero, the two-year rate would also come down at least to some degree with it. Does that answer the question you were asking?

MR. ROSENGREN. Yes. That sounds consistent with the kind of story I was telling.

MR. CARPENTER. I think your story is consistent with what we've been hearing and the data we have.

MR. ENGLISH. I think that's right. Just one other thought. I'm not sure that the story you were telling depends on it being a foreign banking organization. The same story would be true for a domestic organization in terms of its decision between holding Treasuries and holding reserves.

MR. ROSENGREN. You might argue, though, that the optics of paying a very high return on an overnight fund to a foreign banking organization are a little bit different.

MR. ENGLISH. On the optics, I agree.

MR. ROSENGREN. The optics would show, I think, paying a very substantial premium that's higher than what they could get on a two-year. I don't know if people are going to be as worried about it for a domestic entity, but if it was widely understood that it was for a foreign banking organization, particularly because this is an important tool for us when we are exiting, you do wonder whether it undermines our willingness to be able to use this tool in the future if people start being concerned about what its effect is on potentially subsidizing foreign organizations.

MR. ENGLISH. Just one other thought. If you literally look at holdings of Treasury securities and straight agency debt at the foreign banks, they've actually been growing over the past year or so, right through August. I think that's consistent with what Seth said. Some of these institutions are being urged by their supervisors to beef up their U.S. dollar liquidity, and so they may be holding both more reserves and more Treasury securities.

CHAIRMAN BERNANKE. President Fisher, you had a two-handed intervention?

MR. FISHER. Eric's point is very good, and I think the point about domestic banks is very good. But I thought that under Regulation D, we couldn't pay interest rates on bank balances that exceeded market rates. Is that true or false? What is the law, and what do the regulations require?

MR. CARPENTER. The statutory requirement is that the rate paid on reserves can't exceed the general level of short-term interest rates.

MR. FISHER. Short-term interest rates are defined as?

MR. CARPENTER. Not defined.

MR. FISHER. But Eric just laid out all the way to two years. It must be defined somewhere. Did we not codify this in Regulation D—was it section 204?

MR. CARPENTER. The statutory requirement is pretty vague. In terms of putting things into practice, it ends up being a little bit more judgment. You could look at several other market rates, and so you'd have to define the universe of short-term interest rates. You'd have to define what "general level" means. So if you were to look at just federal funds, the effective federal funds rate is 6, 7 basis points, but every day there's a distribution of trades, and some of those trades are outside of the 0 to 25 basis points target range. As a result, there are, every day, trades in short-term money markets that are above 25 basis points. In that sense, it's not obvious, at least to me, that paying 25 basis points is at odds with the vague definition of the law.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I had a question and a comment. The question was about the observation that if we executed either the MEP or the LSAP, we'd be holding 40 percent of the Treasuries with maturity over six years. To me, that suggests that these operations might not be all that scalable. So in the sense that if we faced further deterioration in the economy and we wanted to provide more accommodation at that stage, it would be difficult for us to think about working through augmenting these programs. Is that a fair conclusion?

MS. REMACHE. I think that would be fair to say.

MR. SACK. They're not scalable in terms of purchasing in this region. They're also not scalable in the ability to sell securities because obviously we just have a fixed quantity at the short end of the yield curve.

MR. KOCHERLAKOTA. Thanks. And then the comment is about how, if we were to lower the IOER, banks could begin imposing explicit negative deposit rates. This is reminiscent of conversations I've had with people—they typically tend to be older people—who are complaining about the low interest rates they're earning on their savings. The comment that I'm tempted to make, but which I have not made yet in public, is that this is actually a feature, not a bug. [Laughter] We're trying to get them to consume, as opposed to saving, to spend money on their grandkids and lend to that promising young entrepreneur down the street, as opposed to holding money, and so this actually would be a sign of the program working.

MR. CARPENTER. Right. What we tried to characterize in the memo, and I alluded to it in the briefing, was that this would be in some sense a reputational risk. From an economic perspective, banks have, since time immemorial, imposed fees on checking accounts, giving at least effective or implicit negative rates. But writing down a negative interest rate as their deposit rate is psychologically different for people.

MR. KOCHERLAKOTA. No, that's fair.

CHAIRMAN BERNANKE. Other questions for the staff? President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I have two comments on exhibit 3, "Forward Guidance." I think one aspect of these simulations is that the announcement inside the model to keep rates low for longer is assumed to be a credible announcement, as you note here, and I'm not sure that that's really the right way to think about this. You're talking about a central bank that has never done this in the past and an unprecedented situation. You make an announcement far out into the future—say, for 2015—and my baseline would be that the market's not initially going to believe that you're going to be able to carry through on that commitment far out into the future. That is, when you actually get to 2015, you'll be tempted to revert to normal Committee behavior as it has evolved over many years. And so my sense is that because of this assumption, these effects are probably overstated in the simulations, and that you should allow the guys in the model to gradually learn that the Committee is actually going to come around and actually carry through on this, even if the data may come in somewhat differently than anticipated at the time of the announcement.

The other area—obviously I've been an advocate of this—was that I was disappointed to see that simulations like this don't take into account the possibility that you would just get stuck at a zero nominal interest rate equilibrium and you'd end up at zero nominal interest rates for a very long period of time. Japan has been at zero for about 15 years. I think you have to have that also in the simulation so that you can say with some confidence, “You take on this action, and you’ll be able to move off zero at some point in the future,” instead of eliciting expectations that are going to actually keep you at zero for a very long period of time. Those are two aspects of the simulations I was disappointed with.

CHAIRMAN BERNANKE. Other questions? President Rosengren.

MR. ROSENGREN. One more observation on interest on excess reserves. I did spend some time talking to asset managers over the past month, and on the retail side, a company like Fidelity already gives you an option to sweep into an FDIC-insured account. So for the retail, you already have an option outside of the government or the prime money market fund. At the wholesale level, the way they described it to me is it’s like selling turkeys at Thanksgiving—you sell turkeys under cost, but you care about the fact that the entire shopping cart is full—and so they think of an account as a suite of assets that people are actually doing. The government securities money market fund pays 1 basis point at Fidelity and roughly that at almost all the others, but they’re interested in the suite of assets that the people put in. They need a place to park the funds. Their indication to me was that it wouldn’t change their behavior very much. They aren’t going to lower the rate below zero, but they do view it as a loss leader for the other services. So I’m not sure it’s going to be quite as disruptive as the memo indicated—at least the perspective from the asset managers I talked to.

And just an observation on the negative interest rate. BONY did announce its negative interest rate. Shortly after that, the stock price dropped, the CEO left the company, customers complained, and no other custody bank chose to follow suit. I would say that I’ve talked to two custody banks, and they're gleeful at the negative interest rate. So I'm not sure that is actually a trendsetter for other organizations. Just an observation that I'm not as worried about that.

MR. CARPENTER. Yes. On the first point about the money fund, I think we agree with you entirely, and I should point out that there is a distribution across the staff as to how big the costs are. I think the ability of a sponsor to subsidize a fund that's operating at a loss then means either that some of the disruptions won't happen or that the disruptions might happen more slowly through time, allowing this greater intermediation that may ultimately have to take place going from one steady state to another. It could happen more gradually—again, mitigating the potential disruptions. So the scenario you paint seems entirely plausible. We just can't be certain that that's going to be the case.

CHAIRMAN BERNANKE. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Actually, I think President Rosengren just answered my question. Because this idea that we might lower the interest rate on excess reserves has been in the public for some time now, I was going to ask whether the Desk or the Board staff had conversations with money market fund managers about how they viewed the effect. And President Rosengren's response about the managers he has talked to answers it.

MR. CARPENTER. I think from the money fund management perspective, the view that President Rosengren brings up is one that we've heard a lot here at the Board. Brian, I don't know whether you want to characterize the Desk's discussions.

MR. SACK. We did not do an extensive reach-out recently on this issue, but we always have conversations with money funds. This has been in play for some time. I'd just say that you do hear some anecdotes on the other side as well: They've been subsidizing; if we take another 5 or 10 basis points out of returns, there's a limit to their ability to subsidize; and at least one or two have suggested that they would close funds. Now, it's hard to know whether that's a forecast or a way of trying to lean against this possibility. I think some anecdotes say it would not be disruptive or important, but they don't all go in that direction.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. I think that's an important question. I think an even more important question is whether it would induce banks to lend more. Have we had a chance to survey banks? Seth, you may have an answer to this.

MR. CARPENTER. We have not recently done a survey of banks on that specific question, but the way we look at it is to ask how big of an effect could it be and what are the current impediments to lending right now? That's why we tried to allude to some of the surveys that we have on a regular basis about business lending from banks, and banks tend to point to a shortage of qualified borrowers—their terms—and low demand for loans. The economy is weak. The need for bank credit is low, and as a result, there's less demand. While it seems clear that this should, at the margin, provide banks with a greater incentive to lend, at most we're talking about a 25 basis point change. In that sense, it's not clear that it could be that large to begin with. Moreover, banks have some balance sheet constraints. An individual bank may try to get rid of reserves and get more loans, but the banking sector as a whole can't get rid of reserves. And if, in fact, the real constraint on bank lending now is on the demand side and not so much on the supply side, again, at the margin it should go in the right direction, but it doesn't seem like it could be "the answer." That said, we've seen a small increase recently in bank lending, and so to the extent that this could help with that momentum, maybe there's something at the margin.

CHAIRMAN BERNANKE. Thank you. Other questions? [No response] Okay. If you would indulge me, I would like just to take a couple minutes to frame our go-round on our policy tools. I see the Committee as having faced two challenges over the past two years. First, with policy at the zero lower bound, we have had to be more creative and more unconventional in trying to find ways to provide stimulus. All else being equal, we want to do as much staff preparation, Committee buy-in, and Committee discussion on these alternative tools as possible. That is very important. However, it does create a little bit of inertia in the policy process. The second challenge is that the economy has been very disappointing. It has underperformed, at least relative to our expectations; it is a fact that our forecasts have been consistently too optimistic, and we've had to respond with policy actions.

And so those two facts create a certain kind of tension. On the one hand, you want to move expeditiously to deal with an evolving situation. On the other hand, you want to make sure that policies are well thought through and that the process is respected and everyone has had a chance to have input. Now, those two things clearly came into conflict to some extent in August. I felt, and I still believe—and I think the evidence supports the view—that our policy action in August was both sensible and consistent with our economic objectives. At the same time, even those who were comfortable with the outcome may have been less comfortable with the process, and I apologize for that. I think the only way to address this conflict is to do more contingency planning, and that's what this is all about. The idea here is to think forward and to think about what we might do as the situation evolves. In particular, because we know what to do if the economy gets stronger, what we really have to think about is what we're going to do if the economy weakens further.

I would draw another distinction—which again will, I hope, provide some context—the distinction between frameworks and tools. Our current framework is essentially a flexible inflation-targeting framework, which means that in the medium term, we try to get inflation near 2 percent or something in that vicinity, consistent with price stability. But in the shorter term, flexibility means that we have the ability to respond to shocks to the real side of the economy and to try and guide the economy back toward its longer-term equilibrium. So that is the approach we've been using, and that is, I believe, consistent with our dual mandate and with central bank practice around the world.

There are alternative frameworks—for example, nominal GDP targeting and price level targeting as advocated, for example, by President Evans. These are obviously different, and, in particular, they allow inflation to be at least temporarily higher than the long-term price stability objective, albeit in what I would hope would be a transparent and disciplined way. In terms of alternative frameworks, we are planning currently to talk about some at the next meeting. You have already received some materials, and you should be receiving additional supporting materials within the next few weeks, I hope, so that we can talk about frameworks in November.

Now, that said, for today I think it is best for us to continue to assume that we are in a flexible inflation-targeting framework. And then the question is, how can we best achieve the objectives of that framework? Putting aside the IOER—which a number of people are interested in discussing, so I don't mean to in any way eliminate that from the conversation—broadly speaking, the tools that we have in a flexible inflation-targeting framework at the zero lower bound are two. They are balance sheet tools and communications tools, and we've seen presentations on each of those two areas. Our goal, as we go around the table, is to try to make some assessments and provide some comments about those tools. In doing so, again, what we're doing today is contingency planning. We're not making a policy decision today. So I hope that we can talk about these alternative approaches and try to separate this discussion to some extent from our policy preferences and our outlook.

Let me just say a couple of words about communication because I think this is an area where we've really only scratched the surface. I'll say, just speaking personally, that at the zero lower bound, communication tools are attractive. They are flexible. They don't involve many of the costs and risks associated with balance sheet tools, and they have a lot of academic support from people like Michael Woodford as being an appropriate way to deal with the zero lower bound. So I do think that this is something we should be looking at. In particular, as Woodford's work has shown, the communications approach is very consistent with flexible inflation targeting. And alternative A, which has been excerpted in the memo and contains some of this proposed communications approach—I will come back to this—was written in a way that was intended to be consistent with a flexible inflation-targeting perspective. Specifically, I'd like to say up front—and maybe it, I hope, will short-circuit some discussion—that it is not the intention of this language to set a target for unemployment. We know the hazards of doing that. What instead is happening is that the policy projections are being made conditional on three conditions—unemployment, inflation, and inflation expectations—and, in particular, the last two are consistent with our flexible inflation-targeting framework. We could change it and say that we'll hold policy at zero until the Red Sox win the pennant—[laughter]—and inflation expectations are at mandate-consistent levels, and it still would be consistent with our framework, because we would have the outlet, the safety valve, that we will not press expansionary policies beyond the point that an inflation-targeting central bank would accept.

I do think this language, or something similar to it, is consistent with a flexible inflation-targeting framework. And it's robust, as was discussed briefly by Dave Reifschneider, even if we, for example, misestimate the NAIRU or whatever the equivalent concept is. I think it has some advantages over the "2013" language. In particular, like the language about mid-2013, it's a policy forecast, but instead of being time dependent, it's state dependent, and it explains at least the sufficient conditions that would keep us at zero. And because it is state dependent, (a) it provides more clarity, more information; and (b) it allows the markets to respond to changes in the data. Bad news, for example, would lead the market to expect that those conditions will not be satisfied for a longer period, and interest rates would respond accordingly. The main point I want to make here is, first, that communication is an important tool. I suspect that if conditions continue to be disappointing, we will want, going forward, to use more communication tools, and that's why it's very useful to have a conversation today. Second, the objective was to write a communications approach that's consistent with flexible inflation targeting. To the extent that it's not, we need to discuss that.

Two final observations. I've heard a few people say that they were supportive of the general approach, but they had concerns about the language or the exact implementation of the approach. If that's the case, I'm personally very open to alternatives. I'm very interested to hear how we can better express our intentions and make a policy forecast that's state contingent and that also respects the dual mandate—I think that's very important. So please don't hesitate. The other comment I've heard is that, while this may or may not be a constructive direction, we need to do more work to prime the public, to talk to the Congress, et cetera. Speaking personally, that also is something that I'm entirely willing to do. We'll have the minutes describing this conversation. I have a testimony in just a couple of weeks at the Joint Economic Committee.

We have, of course, all of the various mechanisms for both public and congressional communication. And if that's the concern, I'd like to hear that, and maybe people would have suggestions about how to go about that.

To close, I look forward to the conversation. I hope we can talk about tools, at least to some extent in the abstract, away from the policy decision, which will be tomorrow. And again, I look forward to the input. So we'll do a full go-round on these issues, and we'll begin with President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I was willing to go first, and often a willingness to go first implies that you are going to talk for a long time. That's not always true. But it turns out to be true in this case. [Laughter] I'll start by framing things to a certain extent. My decision in August and my words today are centered on a simple premise that a central bank's primary asset is its credibility. I think we need to communicate our objectives clearly and consistently make choices that are in keeping with those announced objectives. Without that communication and that consistency, we'll lose our credibility and our effectiveness. In that context, I'm going to touch on three issues. The first is objectives and communication, the second is forward guidance, and the third is quantitative easing.

I am going to talk about the three messages. The first is on the communication and objectives issue. I think that before adding more accommodation, the Committee, and especially its leadership, should clearly communicate to the public that in light of the disappointing state of the labor market, it is willing to allow core inflation to rise above 2 percent, and potentially near to 3 percent, for possibly several years. The second is that I think we need a method of providing incremental variation and accommodation at the zero lower bound. And I have another suggestion to throw into the mix, and that is that the Committee should vary the level of accommodation by announcing changes in its expectation of the duration of the stay at the zero lower bound under what it perceives to be an optimal monetary policy. So not a date, as we currently have—mid-2013—but rather a duration. I'll discuss why I think that would be preferable to the date that we currently have. Actually, Governor Tarullo has already touched on this in his memo. The third is that we should keep an LSAP in reserve. Rather than using it now, I think we should keep an LSAP in reserve in case we have to raise inflation expectations, as in 2010.

Let me start with the objectives and communication issue. Right now, I perceive a large disconnect between the Committee's objective function and our communication to the public about that objective function. I got the sense at our last meeting that, given the state of the labor market, many—possibly most—meeting participants would be willing to follow monetary policies that would expose the economy to a significant risk of inflation being as high as 2½ percent, or possibly even 3 percent, over a multiyear period. In contrast, our communication to the public, as well as our earlier actions, has been widely interpreted as being very clear that we will not allow inflation to rise above 2 percent. I think that before we engage in further accommodation, this disconnect needs to be repaired. One way to do this is by repeating the following sentiments through speeches, testimony, and the like to basically state what I have just said, that the Committee believes, given the parlous state of the labor market—you don't have to use the word "parlous," but I like it [laughter]—appropriate monetary policy could result in PCE core inflation rising above 2 percent, possibly to 3 percent, for several years. And I think this message would be most effective if it came from the leadership of the Committee—the Vice Chairman of the FOMC, the Vice Chair of the Board of Governors, and the Chairman. So on objectives and communication, I think we need to fix the public perception of what our objective is—or at least what our communication to the public has been—and what the feeling is within the room.

Let me turn to the right form of accommodation, and I'll talk about the language in alternative A first. I'm not supportive of the proposed language in paragraph 2. In terms of inflation, I think the SEP already provides a way to communicate our perspectives about appropriate medium-term inflation goals. And the language in paragraph 2 just seems designed to undercut what I view as the valuable heterogeneity in those perspectives. There is heterogeneity within the room. That is communicated through the SEP. I don't see any reason to take that out of our communication. In terms of unemployment, I do report a number for my five-year forecast for the unemployment rate, conditional on optimal monetary policy, in the SEP. But I'm not asked to report a standard error bound of any kind for that. Let me tell you, it would be large. My own five-year forecast for the unemployment rate, labor force participation, and the employment-to-population ratio are all highly uncertain, even assuming we do follow optimal monetary policy. I would say it's a mistake to put a long-run unemployment number into the statement, given how much uncertainty at least I feel about that number.

Now, I'm very sympathetic to the goal of paragraph 4, and that is, it tries to provide a partial description of the reaction function of the Committee. I'm a big fan of rules-based approaches to monetary policy, and I think I'd really like us to continue to work toward formulating an appropriate reaction function. That work, I think, has to continue within this room first, before we are really ready to start communicating to the public about it. I'd be very interested in hearing what others have to say about it. My own guess is that we are still some way from achieving what I view as the necessary degree of consensus on the form of our reaction function.

But in any event, even if we do get some kind of consensus within the room, I'm skeptical about the utility of using the compressed language of the statement to communicate, even partially, our reaction function. In the past, we've used the statement to describe the results of feeding current conditions into what is our reaction function. When we say we arrive at a fed funds rate target, that's basically to say we have a reaction function, and what we have done is feed the current conditions into the reaction function. It spits out a target. This obviously operates at a more holistic level than the mechanistic level that I'm describing, but that's what gives rise to what occurs in the statement. And I'd like to continue that practice—to strive for a form of accommodation that can mimic that. Once we have some kind of agreement about the nature of the Committee's reaction function, I think we can convey its contours much more effectively using the richer forms of communication that are available to us, like the press conference tool, speeches, and testimony. That said, we do need some way to vary the level of accommodation in response to economic conditions when we are at the zero lower bound. And as I touched on in my questions, I do not think that the balance sheet adjustments are going to lend themselves to that, so I think communication is going to be the right way to be thinking about that.

Let me suggest an alternative approach that builds naturally from our previous statements. When you go to talk to the public—and they always ask it jokingly, but it really is what's on their mind—the main thing they want to know is, what's going to happen to interest rates? And I think that's what we should be communicating in our statement. The current statement addresses this by saying that interest rates will stay low "at least through mid-2013." But that lower bound itself generates some uncertainty that might be avoidable. Instead, I would suggest just telling the public what they want to know—it's going to have an impact on their decisions—that is, our current best forecast of when liftoff will transpire, assuming that we follow what we view as optimal policy. For example, the November statement could read, "The Committee currently anticipates that interest rates will remain extraordinarily low for the next 12 quarters." And I said "12," which is not "mid-2013," obviously, but "mid-2013" was a lower bound, so presumably you are going to want to add beyond that. That is a fixed period of duration, and the reason I say that is, if in December the Committee decides to leave the level of accommodation unchanged, then you would just leave the statement unchanged. If you come back in December and conditions look exactly the same as in November, well then, you should have the same length of time at the zero lower bound coming out of your reaction function. It shouldn't be that you're going to be six weeks closer to the time of liftoff, which is what I think Governor Tarullo mentioned in his memo. In contrast, if conditions remain the same in December, the date of anticipated liftoff would just automatically roll forward by six weeks. If we removed accommodation, 12 quarters could become 11 quarters; if we added accommodation, 12 would become 13. Now, I think this obviously presents communication challenges. You want to make it clear that this is a projection, an expectation, not a commitment. But I think this can be done at the November press conference, where what I've just said could be articulated. I just think that the expected duration of this lower bound is an easily understood, relevant, and continuous variable that can be adjusted in response to economic conditions, just as we used to vary the fed funds rate. I think it is an approach that merits some attention as we think about what kinds of tools we're going to use to vary the level of accommodation at the zero lower bound.

What about balance sheet adjustments and the IOER? The staff memo just points to distinct limits on capacity for all of these tools. Obviously, on the IOER, I don't think we're going to go negative on it, so there is a limit on the capacity on that. I think there are also limits on the balance sheet adjustments, as Julie and I talked about. We are essentially talking about almost a one-time use on that, and I just don't see them as a viable method of providing accommodation on an ongoing basis. The second LSAP was clearly effective in reducing the risk of deflation; it is a real positive of our implementation of that. I would think about providing incremental variation in accommodation using this expected duration of stay at the zero lower bound. Just keep the LSAP in reserve in case we feel the need to raise inflation expectations. Now, that time may be coming closer than I would like, given what Brian was talking about in terms of deflation possibilities. But in any event, I think the size of our balance sheet, whether it should or not, economically does seem to have an influence on people's inflation expectations. And I think we should keep that in mind.

I will close by returning to my first message. If you look at the staff's optimal control exercises in Tealbook, Book B, and in the forward guidance memo, they strongly suggest the FOMC could do better with respect to its dual mandate, even if one put relatively little weight on unemployment, if it follows policies that admit significant risk of inflation running above 2 percent and possibly close to 3 percent. And I think that before adopting the accommodation that is consistent with those outcomes, the Committee and its leadership need to clearly communicate their willingness to undertake those policies and to have those kinds of outcomes. Given my own baseline forecast for the economy, which I will talk about later today or tomorrow, I think of this kind of communication as really being necessary and sufficient for further accommodation. If the Committee is willing to undertake this kind of forthright communication about its willingness to have higher than mandate-consistent inflation for several years, I would be in favor of adding more accommodation. I would be opposed to adding more accommodation if it is not. My concern is credibility. This communication fix would, I think, take care of that concern. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. Let me begin by addressing the question of the nature of further monetary easing should it be considered desirable by the Committee. And first of all, I think it is very appropriate for the Committee to consider ways in which it might ease policy further if necessary, just as we have made reasonably careful plans concerning exit from our extraordinary policy at the appropriate time. With the policy rate at near zero for two more years and possibly longer, the Committee badly needs a way to conduct a purposeful, systematic, countercyclical monetary policy. We need to be able to adjust policy on a meeting-by-meeting basis as data on the state of economic performance are received, knowing that we will be unable to adjust the policy rate for some time.

I see a maturity extension program as a one-time policy, which is constrained by the nature of the balance sheet, much as President Kocherlakota just mentioned. I do not think this policy can be used regularly and effectively as part of the policy process over the next two years or more. Lowering the IOER, as contemplated, also seems to be a one-time move. I think this meeting is a good opportunity to discard one-time policy changes with fixed end dates. It is counterproductive and unnecessary to reinvent the policy response each time the economy changes direction. Indeed, it damages our credibility and hurts our ability to function effectively.

I think it's reasonably clear that asset purchases are the Committee's most natural policy tool. Purchases tend to drive up inflation expectations and drive down real interest rates. This is conventional, accommodative monetary policy. I stress that last year at this time, the inflation rate was low and expected to remain low due to the degree of slack in the economy. Even though the real economy gave a worse-than-expected performance over the past year, inflation actually increased both on a headline and a core basis during that period. That sounds like a clear fact of monetary policy to me. If the goal was to move inflation higher and real rates lower, we certainly accomplished that.

As you know, I prefer a meeting-by-meeting, state-contingent asset purchase program. I think it would be appropriate to vote on an amount to purchase between now and the next meeting. In the statement language, we can suggest that purchases will likely continue, conditional on the state of the economy. This continuation value, or bias, will set up private-sector expectations of further purchases, just as an interest rate move, coupled with a bias, sets up expectations of future interest rate moves in ordinary times. This private-sector expectation of future purchases would provide the so-called stock effect, as the impact would be pulled forward by financial markets. The expectation would also change in response to incoming economic data. This approach would prevent the Committee from being awkwardly committed to stopping purchases or any other program at a date certain independently of the state of the economy at that date. We will, of course, be criticized from all sides no matter what we do. However, an announcement of this type would be of a smaller total at a particular meeting and, I think, would mitigate criticism in that regard. But I think the effect would be the same because of the continuation value—and possibly even larger depending on what markets would expect going forward for the state of the economy. So this is a clear case where less is more.

Let me turn now to monetary policy communications as a policy tool, as an alternative, as the Chairman just laid out. The literature following Michael Woodford often suggests that longer and longer commitments by the central bank to keep the policy rate near zero can have a stimulative impact today. This is indeed true under specific circumstances inside some models in which credibility is perfect. But I caution that we should be exceedingly careful in attempting to apply this doctrine to our actual policy situation. The key problem is that the literature has not come to grips effectively with the work of Benhabib, Schmitt-Grohe, and Uribe, at least not in a convincing way for me.

Benhabib et al. suggested that the macroeconomy could become stuck in an undesirable steady state in which the nominal interest rate remains zero forever. Japan, in fact, seems to be in this situation. Simply announcing that the policy rate will remain near zero for a long time can feed into the steady state identified by Benhabib et al. As it stands now, we're at four and a half years of expected zero policy rates. I think if we go longer, we'll increase the risk that we get stuck in this situation. Indeed, some of the reaction to the Committee's most recent announcement had this flavor. Some financial market participants saw it as stimulative in the conventional Woodford sense, but others saw it as increasing the probability of a Japanese-style outcome for the United States. They marked down their potential growth and their interest rate forecasts for a long time.

In Woodford's most recent *Financial Times* editorial, he notes that a permanent increase in the level of reserves in the banking system, not offset by an increase in IOER, would cause a permanent change in the price level—that is, would increase inflation—even in his framework, which tends to downplay this possibility. Indeed, I believe it is a fact that markets attach some positive probability to this outcome—that is, that some of the increase in the reserves in the system would be permanent and allowed to flow through to the price level. It is exactly that positive probability that increases both inflation expectations and actual inflation coming from balance sheet policy. The Committee has made no explicit statements about that other than to reiterate that we intend to take the large level of reserves back down to a more normal level at some point in the future. However, I think the private sector puts only a large probability, not 100 percent probability, on that. To the extent the Committee wishes to ease further, I prefer this method, the balance sheet method, to the one that simply promises near-zero rates for a very long time, because in my view, the asset purchase method does not have the potential drawback of becoming trapped at the near-zero rate indefinitely. The outcome in Benhabib et al. occurs because of overemphasis on nominal interest rates as the only policy tool.

The Committee can also consider more fully describing the circumstances under which it would move off of the zero-rate policy, as suggested in the recent memos by the Board staff. I'll now turn to commenting on that. Generally speaking, I think it is not a good idea to explicitly commit U.S. monetary policy to a quantitative reaction function. This is the sort of commitment that might work well inside a macroeconomic model. Inside the model, we understand exactly how everything works, and therefore we can specify exactly how policy should be conducted in order to achieve the optimal allocation of resources. However, in an actual economy, we do not know enough to commit in a specific, quantitative way to a particular reaction function. I certainly think we can learn a lot by studying models and the quantitative reaction functions they recommend. We can employ those reaction functions informally in making judgments concerning monetary policy, but I would stop short of actually adopting a quantitative reaction function for U.S. monetary policy, as it could easily turn out to be an inappropriate choice. In short, we should not adopt this course because of model uncertainty. I think we're better off committing to goals than to instrument reaction functions.

It would be particularly questionable to tie U.S. monetary policy directly to the behavior of unemployment. I sent a memo to the Committee on this topic, and let me just touch on a few of the points here. I think the conventional wisdom has been that unemployment, empirically speaking, moves in ways that are difficult to understand, which means that tying monetary policy directly and specifically to this variable is risky. The leading example is European unemployment over the past 30 years. Unemployment is importantly affected by labor market policies. So we could be subordinating monetary policy effectively to the labor market policies that are really the prime determinants of the unemployment rate in the medium to long term. I would also note—and this is a geeky point, I know—that available research does not give us much guidance on monetary policy and unemployment. The standard New Keynesian model, for instance, has no unemployment. You can read all of Woodford’s book, and you will see no reference to unemployment. This is because it’s all about output and consumption; actually, investment is not in there either. But to get to the unemployment issues, you have to go to search models, and search models tend to be very difficult to meld with other types of general-equilibrium macro models. Where that leaves us as policymakers is that we don’t have a lot of available guidance. Newer models do have unemployment—there are some papers—and they do have the search frictions coming from the Diamond, Mortensen, and Pissarides tradition. I think the main take-away from that literature is that it is the difference between the flexible and the sticky price level of unemployment to which monetary policy should react. That’s a very different conception of what’s typically talked about around this table. Furthermore, to the extent we have research on this question, it says that wrong choices can throw the economy far off course. So this may be playing with fire in a way that we don’t want to play with it. Models do have sharp predictions on employment, certainly equally as interesting a variable. Our mandate actually refers to employment, so I think it makes a lot more sense to think about employment than unemployment in this regard.

The final issue is—I'm not sure if we're discussing it at this meeting, but I guess some people are, so I'll discuss it, too—forward guidance on the federal funds rate. Generally speaking, I think this is an interesting idea. Other central banks have done it as detailed in the staff memo. I would make two comments on this. First, I think there's considerable confusion in our SEP process over the provision that forecasts are made under appropriate monetary policy versus an unconditional forecast that's simply trying to predict what will actually happen. Members understandably don't want to be predicting what their colleagues may or may not do. We may understand the difference and the subtleties of that, but the forecasts, I think, are generally interpreted as unconditional forecasts. Most of the studies that you see looking at past forecasts of the Committee just examine how accurate the forecasts are and compare the accuracy. One implication of our forecasts is that they never suggest that inflation will get out of control, because there is always the appropriate policy that keeps inflation under control.

Second, I'm unsure whether putting out 17 interest rate forecasts is really a good idea. This may be more confusing instead of less confusing. I'll make a different suggestion. I think what the Committee needs is something like an *Inflation Report*, which is put out by the Monetary Policy Committee in the United Kingdom. One option would be to simply publish the Tealbook or a variant of the Tealbook. What I like about that is that it would give a nuanced view of the likely path of policy and the likely path of the economy. It would put some pressure on the staff, which has been discussed in the past, but other central banks do it, and I don't see why we couldn't do it. I think this nuanced view would serve the Committee very well. It avoids trying to boil down the mass of information we have to a few words or phrases or to a few numbers. This approach would also allow Committee members to agree or disagree with particular aspects of the Tealbook view without having to disagree with the general thrust of the entire analysis. I think this would be a helpful compromise on this issue. It would be a way to communicate to the public effectively in a nuanced way without trying to boil everything down to a particular number. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. We have been asked to address several questions regarding tools and language to provide further monetary accommodation if and when it is warranted. However, the tools that would be appropriate depend on the reason for our wanting to engage in accommodation and, in particular, on the underlying framework that is guiding our policy decisions. So I can't fully divorce my discussion from the current economic environment or our framework. As President Kocherlakota said, being credible is an important part of an effective monetary policy, but it's hard to be credible without a clearly articulated framework. I believe that the risk of financial turmoil, for example, arising from the European Union has increased, and discussing how the situation might play out and how we might respond seems more important than attempting to tweak our term structure by a few basis points. But I will return to that in a later go-round.

Let me talk about the various tools that have been raised. Maturity extension programs—I'm skeptical that balance sheet tools like the maturity extension program are going to do much to speed the recovery on the real side. Board staff estimates that $400 billion of MEP would lower long-term yields about 20 basis points and raise two-year yields about 5 basis points. As has been referred to, Swanson's study found that Operation Twist of 1960 had a slightly more moderate effect of a 15 basis point decrease in long rates and a comparable increase in short rates. However, the impact, even in that study, on corporate rates was only about 2 to 4 basis points. Why would we think a twist operation this time around would filter through to other borrowing rates when it didn't in the past? The potential benefit for the real economy will be small, but there will be cost. Such actions undermine the Fed's credibility by giving the impression that we think our policies can have a significant impact on the speed of recovery when it seems highly unlikely that they can do so. That undermines the credibility that President Kocherlakota was talking about earlier. This loss of credibility will cost the economy in the long run when the time comes to unwind these policies in order to control inflation.

I have similar views of the LSAP programs being discussed. I think they'll do little to speed the recovery as much as we'd like and, indeed, run the risk of destabilizing inflationary expectations. If we were convinced we were headed into a very serious deflationary period where deflationary expectations were rising or began to emerge in a serious way, we might consider asset purchases as a credible way to commit to bringing inflation back up to our goal, as seems to have been the effect in QE2. At present, I don't see that risk coming about. Indeed, inflation continues to rise, forcing the Tealbook to repeatedly revise up its inflation forecast. Given this track record, we should not become too sanguine regarding the medium-term forecasts of inflation that come out of the Tealbook.

What about raising the targeted rate of inflation? The economics is very clear, as President Kocherlakota mentioned: At the zero bound, this is a sure way to lower real interest rates. But many questions, I think, remain. Given how low rates already are, do we think lowering them more will have much of an impact on growth and employment, the purported goal of running such a policy? And would we seriously be able to implement such a policy? I'm very open to a robust discussion on this dimension, but on this point, I remain very skeptical. For such a policy to work, it is critically dependent on its credibility. The markets have to believe we will run such a policy. Are we that credible? We don't yet have an explicit numerical goal for inflation, yet we think we can credibly raise our target with the public through its communications?

What actions will we take to reinforce our announcement of a higher inflation goal? More LSAPs? Perhaps. Would this be a temporary increase in our inflation goal, or would we want this to be a permanent increase? Given the difficulties we have in even forecasting inflation, why do we think we can manage a temporary increase in our inflation goal? Alternatively, if we wanted a permanent increase, how do we justify it in terms of our mandate for price stability, given the fact that we have been saying that 2 percent is the mandate-consistent number? How do we calibrate the appropriate level of inflation? Presumably, we need to balance the cost of a permanently higher inflation rate with the temporary short-term benefit such a change in the expectation of inflation might actually bring. And indeed, in my mind, those benefits from that action are extremely uncertain. They give higher inflation as a way to get rid of the debt overhang problem. The debt overhang problem raises a whole host of questions. Distributional effects—at the end of the day, the debt overhang problem is about who pays. Changing the distribution of losses through inflation is a fiscal policy action, which I think we should be very cautious about. Other questions revolve around, can we actually speed the recovery in a process through debt deflation using inflation? Will inflationary expectations change in a way to devalue that debt very quickly? I think those are a host of questions that we have to grapple with if a higher inflation rate is something that we want to pursue.

On language—of course, I've been and continue to be a strong advocate of our being more explicit about our inflation goal. The work that I and some of our colleagues did at the suggestion of the Chairman earlier this year suggested a way forward. We produced a set of communications that we thought would allow the Committee to communicate a numerical inflation objective and to distinguish such a goal from the employment part of our mandate. This takes more words of explanation than we can provide in our meeting statements. Thus, I'm opposed to using the statement language, such as in paragraph 2 of alternative A, to indicate a numerical goal for inflation and our projected longer-run employment rates. My bet is that the public and the markets would see this language and conclude that we had a numerical unemployment goal. President Bullard, in his comments, explains why that's problematic, both from a theoretical and a practical perspective. Indeed, we discussed these very issues in our special meetings on unemployment and DSGE models, both in the past year or so.

On paragraph 4 of alternative A, on the trigger policies, I don't support the trigger policy language of alternative A. I think it's very problematic. I've long advocated the use of rules as guidelines to systematic policymaking that we can convey to the public, and there is a long literature on the benefits of robust rules for monetary policymaking. A rule allows market participants and the public to infer the likely path of interest rates in response to changes in the economy. And as I said, the literature on robust rules is informative because it cuts across different models and talks about the viability of the robustness of various specifications, even when models may differ. Model uncertainty is a big problem. However, the proposed language is not a reaction function. Instead, it casts policy in terms of a trigger and differs from a Taylor-type rule, which calls for a continuous adjustment of our policy rate to deviations of inflation from target and some sort of real gap. As such, the proposed language does not provide any information to help the public infer the path of interest rates once tightening may have started. And so the benefits, it seems to me, of articulating a reaction function are very, very limited and small using this strategy.

The formulation is problematic for other reasons as well. As President Bullard pointed out, it's quite difficult to model and understand movements in the unemployment rate, and there is considerable uncertainty about the level of unemployment over the medium to longer term or its natural rate. President Kocherlakota mentioned the huge standard errors that would surround any of our forecasts. The trigger policy appears to be inherently biased toward more accommodation, since it's based on actual unemployment rates but only a forecast of the medium-term inflation changes. Inflation, we know, changes only very slowly. And as I have mentioned, our forecasts are not very accurate. It conveys to the public that we believe we can exploit the short-term Phillips curve tradeoff between current unemployment and the medium-run inflation forecast. I think this ignores the lessons of the '70s and the dangers that can arise from that. Moreover, underlying the triggers in alternative A are assumptions about policymakers' loss functions. We have never had a discussion about our loss function. It seems to me that before we develop a framework that relies heavily on that, we should have that discussion. Our models suggest that putting too much weight on output or unemployment gaps when setting monetary policy can lead to instability and far worse outcomes for both employment and inflation. Yet that appears what we run the risk of doing. We simply need a lot more discussion about what underlies these numbers to understand and communicate our reaction function in a meaningful way, and I would certainly welcome such a discussion.

I believe the alternative of using the SEPs for forward guidance is a much better approach than calendar dates or triggers or efforts to manipulate short-term markets to convey our forward guidance. The communications subcommittee circulated a memo on adding our fed funds path assumptions to the SEPs to give the public information on the expected path of policy. We will be submitting new forecasts at the next meeting, and I would hope the Committee participants would be willing to provide their funds rate path assumptions internally as an experiment. The Chairman might continue to provide the table of projections as it's currently formulated at his press conference in November. But the staff could draft the SEP, including that information on forward guidance, and circulate it internally. If the Committee is comfortable with this, then we could publish those in November, or alternatively, it would provide a way forward for our January meeting—we could then transition away from calendar dates toward our projections of the SEP as indications of forward guidance. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thanks. I just want to ask one question. Obviously, a policy tied only to unemployment would risk destabilizing inflation if you misestimated the u^*. But, as I said at the beginning, we have the escape clauses of both projected inflation in the medium term and inflation expectations. You mentioned that projected inflation is a weaker condition, but, of course, that's what all inflation-targeting central banks do. And then you also mentioned the unemployment rate as being interpreted as a target. I just wanted to note that the language describing the unemployment rate in A(2) comes directly from the FAQs that your group put together for a public presentation explaining what unemployment is. I think the SEP suggestion is an interesting one, for example, but I don't quite understand why it was inconsistent with the broad inflation-targeting framework.

MR. PLOSSER. I would suggest—and I have suggested this before—that I think this is about communications as much as anything else. And I don't think the statement is the place to do that. You've given several speeches about why the unemployment SEP number is different. I think that concept needs to be socialized more widely. I think you and the Vice Chair and others need to talk about it in speeches, help explain it to the public, so they understand this means something different before we try to get our policy statement, in which we are confined to very few words, to convey that notion. I think that over a period of time, I would certainly become more comfortable that we could do this and not have it be misinterpreted. In the context of a policy statement, I think it's very difficult to do.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. Just an observation, Mr. Chairman.

CHAIRMAN BERNANKE. Yes.

MR. LACKER. CNBC this morning aired a discussion of our possible policy tools, including this "trigger strategy" idea. They referred to the unemployment rate trigger as a target. So I think the discussion has begun, and I think we're behind the curve on that if we're going to try to convince the public that it's not a target.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. What do we mean by "target"? Do we mean "target" as in when we think about starting to normalize policy or "target" as in a long-term objective for unemployment? "Target" can mean different things.

MR. LACKER. I understand what we mean about it. I'm just reporting that—

CHAIRMAN BERNANKE. Okay. We understand the distinction between an inflation target and an unemployment "target" in quotation marks. We understand that's an important distinction to make.

MR. BULLARD. Mr. Chairman?

CHAIRMAN BERNANKE. Yes, Jim.

MR. BULLARD. Maybe we should just try to clarify this here. I thought if you put your stuff in your Taylor rule, then usually you said you're targeting those things. Now, here we don't have a Taylor rule, but you have this threshold for action that seems very close to me. So I don't know. I think that there maybe is some confusion over the targets versus—I'm not sure what it is if it's not a target.

CHAIRMAN BERNANKE. That was the sense, I think, that the Vice Chairman was reacting to—that there is a u* and a π* in the Taylor rule, and in that sense, it's an anchor for or a determinant of policy. The difference is that we can set π*; we can't set u*.

VICE CHAIRMAN DUDLEY. Absolutely.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Well, I remember hearing John Taylor, or maybe he wrote it down in his blog somewhere, say that he disagrees with that characterization. Now, I don't agree with how he described it, but at some point he said that output is only in there to capture inflationary pressures and things like that. So there is tremendous disagreement.

MR. BULLARD. Right. I'm recalling long papers by Lars Svensson that are defining all these things, and I don't think it was very clear.

CHAIRMAN BERNANKE. President Kocherlakota.

MR. KOCHERLAKOTA. I'll refrain from making comments about how much CNBC has read Lars Svensson's work. [Laughter] As you referred to in your framing remarks, Mr. Chairman, I think it is important to keep in mind that the thresholds that are being used in paragraph 4 of alternative A are not u*. They are a way to describe when the Committee will raise interest rates as consistent with some notion of u* being maybe 5 to 6 percent.

CHAIRMAN BERNANKE. That's correct.

MR. KOCHERLAKOTA. Okay. So that's the way I took it. With all that said, I think we can get to a point where we all understand that in this room. I think the challenges in communicating that to the broader public might be pretty high.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I'll follow in the order that the questions were sent to us.

For question 1(a), I do think the maturity extension program is a useful tool. The estimates of the effect of the maturity extension provided by staff seem quite reasonable. In talking with financial market participants, they have suggested that the expectation of policy action of this type is one of the reasons that long-term Treasuries and mortgage rates declined so much recently. I agree with the comments of several of my predecessors, though, that it's a one-time action, and so we're going to need to deploy additional tools if we see a financial crisis or the probability of deflation rising substantially. I think it's a sensible one-time thing to do, but it is a one-time thing to do.

In terms of question 1(b), on the interest on excess reserves, I think that through my questioning it was probably pretty clear what my view was. I do worry about the optics—that so much of it's being held at foreign branches. I do think it helps signaling that we're serious about keeping rates low for quite a while. And I do believe it'll have a fairly modest effect, but given the signaling and optics, we should think about it. It's a one-time thing, and if we're doing one-time things, this would seem to be the appropriate time to think about it.

In terms of question 2(a), I think it is useful to make clear that we are intending to restore the economy over time to 2 percent inflation and an unemployment rate in a range of 5 to 6 percent, consistent with our forecast submissions. We've already stated in the SEP that that is what we're expecting to do in the longer run. And I don't think there will be a big impact from that, but it's probably useful to do it.

To the extent that we could be more transparent about our reaction function, a question in 2(b), I think that would also be useful, not only to the public but also to our own deliberations, where it's sometimes not as clear as it should be whether our policy positions reflect differences in our forecast, differences in our long-run objective, or differences in our reaction function. Getting more clarity around this table about which of those three things that we disagree on actually would help edify everybody and maybe help us have a more focused discussion.

In terms of 2(c), I'm actually not bothered by paragraphs 2 and 4. I think they're reasonable—other than that they're in alternative A rather than alternative B. But if I were to make a suggestion, I would combine 2 and 4 and maybe focus on three elements, particularly given that, as several people have noted, we haven't had time to communicate a long-run inflation target of 2 percent and to have some of the communications. But we do have the SEP projections, and if we were to do something like this conditional language at this meeting, or a meeting soon thereafter, I think it is reasonable, until we have had time to communicate, to focus on the SEP projections and on highlighting that 2 percent or a little bit below and unemployment of 5 to 6 percent—that has not changed. Also, how consistent is it with the objectives and our forecast?

And finally, to the extent that we can make our reaction function clear, I think that's useful. Several people seem to be talking about an inflation target as if it's an inflation ceiling; my understanding of an inflation target is it's just that—it's a target that is the midpoint, it's not a ceiling. If it is a midpoint, that means at times we would tolerate inflation that's a little bit higher, and at times we would tolerate inflation that's a little bit lower. Particularly at times when we're very far away from where we think the unemployment rate should be, it would be reasonable to take more risk on getting the inflation rate a little bit higher. And we could argue whether the appropriate range was 1½ to 2½ or 1 to 3 percent, but I think it's actually quite consistent with what already is embedded in how we have described the inflation target.

I do think that if we're moving to be very explicit about inflation being 2 percent, we would need to have a conversation with the Congress. Over time, I would hope that we'd gravitate away from the SEP projections to being more explicit about what our longer-run goals are. But that would take more time. That's all I have.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, you're going to hear a lot of different views around this table, and some of them have already been expressed, so I will try to be concise, which means I won't be. I'll go in reverse order here. Generally speaking, I'd prefer focusing on communications policy over working our balance sheet. Parts of those reasons have already been expressed. I'm still at sixes and sevens trying to figure out the right communications policy, and actually, I was somewhat encouraged by paragraph 2 in alternate A. I was discouraged by the specifics that were outlined in paragraph 4. But I do think we should have a good, robust discussion about this as we go forward.

Going in reverse order up to number 1 and the questions that were asked, I'm quite sympathetic to what Eric argued earlier, but I'm undecided in terms of the efficacy, which is the key question, because it's not clear to me yet—and perhaps we could learn more—that if we did lower the IOER, it would indeed induce banks to lend. Therefore, I asked the question of Seth, and I think his answer was that it's not clear.

I'd like to focus my comments, if I may, on, first, 1(a), which is the potential efficacy of policy tools tied to the size and composition of our balance sheet. And I would say that if the choice is between more QE and twisting, then twisting wins hands down. That's the good news.

The bad news is, it’s a Hobson’s choice. And I believe both provide perverse incentives. The key questions are: (1) What are the magnitudes of the effects from the reduction in the outstanding supply of longer-term Treasuries? (2) How do these effects extend beyond the market for Treasuries to yields on corporate debt or mortgages or into the stock market? and (3) What is its impact on savings and consumption? Well, that’s what I think we’re trying to deal with. The answers to 1 and 2 are “not that big”; that is, they don’t have much influence. And the answer to 3 is “not so much.”

Krishnamurthy—which, by the way, always sounds to me like a Hindu–Irish combination of bloodlines—and Vissing-Jorgensen at Northwestern University estimated that QE2 had roughly a 20 basis point reduction in Treasury yields but that it had a much smaller effect on corporate yields; they estimated we had a 7 to 12 basis point effect for investment-grade securities. Swanson’s study at the San Francisco Fed has been referred to twice, I believe, in this conversation so far. He went back and looked at the original Operation Twist, which, I might add, was announced by President Kennedy on February 2, 1961, roughly corresponding to the bottom of the business cycle. But Swanson estimated, as was mentioned by Charlie, that the original Operation Twist had about a 15 basis point reduction in long-term yields and, very importantly, as President Plosser mentioned, a 2 to 4 basis point impact on corporate yields. What worries me is that the confidence bands that surround the studies that were sent to us are awfully wide. I found it interesting that the Board staff memo now concludes that QE2 had half of the impact that we had originally guessed, and the Board and the New York Fed memo now estimates the maximum effect of a reinvestment maturity extension program transfer of, say, $275 billion as lowering 10-year yields 7 basis points. So these are very modest effects or benefits, Mr. Chairman, which I think need to be weighed against the cost of exposing the Fed’s balance sheet to a greater amount of interest rate risk, because longer-duration assets decline more in value versus short-duration assets in response to interest rate increases.

In summary, I want to mention that, as I said earlier, most of these variations that have been suggested are very un-Bagehot-like. And what I mean by that is, twisting entails purchasing assets that investors are fleeing toward, not assets that they are fleeing from. When I talk about perverse incentives, I'm worried about any action along these lines incenting people to hoard more, particularly savers. I'm actually concerned about its impact on pension funds. I don't know if we've gone through the numbers and studied that or not. But the way pension fund accounting works, and particularly for government and organized labor workers who are more given to defined-benefit programs, is that lower interest rates raise the expenses required and require more funding. Incidentally, I asked our staff to examine a decline in the interest rate or return assumption from 5¼ percent return to 5 percent, just on Federal Reserve employees alone, and it increases the expense requirement or the additional reserving by $300 million. So we need to think through the practical consequences of this in terms of the cost and what impact it would have, not only on the sense of a need to hoard more for those who earn less, are out of work, or are worried about the small value of their savings, but also on institutional investment and what impact it might have.

Also, larger holdings of longer-term debt may make future decisions regarding short-term rate increases more politically contentious. The good news is that the bind of extending the maturity or duration of our portfolio might encourage investors short term, but it could hurt our maneuverability and undermine confidence—a key word that's been mentioned many times around this table—in our ability to conduct independent policy. Similarly, long-term duration exposes us to losses, and yes, we might take comfort under that very adverse scenario that you had in your chartbook, that we can book these curtailed future advances to Treasury as a deferred credit asset on our books. It's reasonable, however, to hypothesize that the prospect of such losses could discourage rate increases when the time comes. Conversely, the stronger the recovery, the greater the losses the Fed is likely to suffer should it actually want to tighten. And the political incentive to hold rates down becomes stronger precisely when you want to unmoor it. So those are my comments on 1(a). Again, I would prefer to stress communications than deal with the balance sheet.

Just a general comment in terms of the SEP exercise, because I think President Kocherlakota, or maybe it was you, opened up the discussion of fed funds. I'm a little bit concerned about how that exercise would work. It's one thing to state our destination. Let me use a simple analogy. If I say I want to drive to Abilene, and I want to get there by a certain hour, that's my goal. As far as the fed funds rate is concerned, to me that's the degree to which I press down on the accelerator—how many inches or, to the degree we talk about things, how many angstroms. And I don't think that's a very realistic exercise. What counts is the topography that we encounter, the roadblocks that we encounter, and how we're going to maneuver our way around them. But it's not terribly practicable or sensible to forecast the degree to which we're going to press the accelerator by so many inches or so many angstroms, because that's likely to change depending on the conditions that govern either the vehicle we're driving or the terrain through which we're trying to drive. So I have some questions there, Mr. Chairman, that I think would be worthy of discussion. But in general, as I said earlier, it's important for us to think about communications. There are real dangers for dealing with the balance sheet under the two different options that have been suggested, and the point that this is a one-time effect is of great concern.

When we talk about contingency planning, my concern is, what do we do if the S&P goes to 600? I talked about that before. It's a real possibility. What do we do if we end up with a disaster in Europe? A real possibility. What do we do if there's some kind of exogenous development that just completely takes us for a whack? That's the kind of contingency planning I think we should be talking about, rather than diddling at the margins here for limited returns. Governor Duke made a very good point in the last meeting, which is that we have limited ammunition. We must use it very carefully. And I believe the proposals that we've seen so far are expending that limited ammunition for a limited return. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Again, we're in a process of contingency planning, and that's exactly what motivates that.

MR. FISHER. Yes, sir. And let me also just add, if I may, that I'm delighted with the framework exercise because I think that's really what we should be discussing, and I look forward to it. Thank you.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I realize you have emphasized that this is contingency planning. I'd like to focus my attention really on my reactions to the policies suggested in terms of their immediate potential. There's a caricature of the French that they tend to think along the lines of, "It works in practice. Will it work in theory?" And I think our situation is, "Will it work in practice, or are we just dealing with psychological operations, and will they work?" So let me start with an overview of how I reacted to the whole set of memos and questions. I doubt that the balance sheet tools will have much real effect through the credit channel. Looked at on a benefits versus potential costs basis, I think the MEPs are safer considering the projected modest effects. However, for "psych ops"—to use an Army term—

effects, the LSAP is much more powerful if we conclude that shock therapy is needed. Dropping interest on reserves will have little or no effect and carries significant uncertainties. And I'm unconvinced about, but not closed to, employing explicit unemployment and inflation policy triggers in a statement versus using the SEPs to communicate participants' projections. But, as I said, I'm open to further discussion and could be convinced. And finally, I thought Governor Tarullo sent out a quite useful memo, and I am substantially in agreement with Governor Tarullo's position.

Rather than go through each of these points, let me just highlight some thoughts on two or three of these elements. As I said, I doubt that there will be much in the way of real effect from the use of our balance sheet tools. I concede that we can drive down long-term rates a bit, but rates are already low. We'd be doing this in a context of continuing deleveraging. Credit standards are necessarily higher. There's plenty of liquidity, and from a business point of view, even a better revenue outlook from some anticipation of growth may not generate much hiring. I'd like to see further analysis—and my staff and I discussed this at some length— along the lines of the question, with lower longer-term rates, who—meaning, which borrower class—will actually borrow and for what purpose, and how much incremental demand will that produce?

My own sense is that longer-term rates will affect mortgage costs for consumers, both new buyers and those refinancing, and for commercial real estate owners, both new projects and refinancing. That's where the long rates will have the most effect, but only if short-term rates also fall, and that's uncertain, according to the study that was presented. Are other financed consumer purchases—namely, autos and other durables—cheaper? And furthermore, consumer revolving credit—credit cards and equivalent store charge cards—is very sticky at high rates in order to absorb credit costs and fraud costs. Most ordinary business credit is at short tenors—

that is, revolving credit that is typically priced around one year and term loans in the five- to eight-year range. So the best chance for lower longer-term rates to stimulate sustained activity is consumer spending from lower mortgage costs due to refinancing, with some cash flow that is freed up going into increased savings. And I ask, what's the recent response from the point of view of refinancing to lower rates, which have been declining since the first of the year or since about April, per Brian Sack's exhibit 3? I don't know what the credit aggregates have done, but I think if we look at that, we could get a sense of what the response is to lower rates; some of that is certainly contained by the fact that many mortgage holders are underwater and therefore not pursuing refinance.

Regarding interest on reserves, I'm skeptical that reducing interest on reserves alone will do much to stimulate more economic activity. Bankers don't perceive a business tradeoff between 25 basis points on reserves and 300 to 400 basis points average yield on a loan, and for what it's worth, bankers tell us that dropping interest on reserves will not incentivize them to make loans they wouldn't otherwise make. One banker did suggest that eliminating interest on reserves would cause some layoffs. Also, I think there's a question related to the FDIC assessment. Because of the FDIC assessment, interest on reserves at 10 basis points would imply a net tax on large domestic banks, and if we were to go so far as LSAP 3, that would increase the tax if implemented. So the question I have is, have we engaged the FDIC at all on their continued policy of applying this assessment, because it does affect, at least in some scenarios, monetary policy? I'm also concerned, although I heard President Rosengren argue the opposite, that there would be disruption of short-term funding markets. I think this is something of an unknown. So I ask, why should we take the risk of doing that?

One final comment on the targeting of unemployment within a framework as portrayed in paragraphs 2 and 4. As I said, I'm unconvinced but not closed minded on the subject, but I'm concerned that labor markets today are very confusing. There is much we do not understand, and an explicit number will be taken as a harder commitment than perhaps we can back up with our understanding of how labor markets are in fact working. Those are my comments. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Let me just mention one point. A number of people have mentioned the role of the projections, the SEP. I'm just raising this for consideration. Would it make sense to make reference to the SEP in a statement? For example, you could say, "As indicated in the most recent Summary of Economic Projections, the Committee judges that inflation between 1.7 and 2," et cetera. Does that help at all, Charlie? You don't have to answer now if you're not prepared, but that would be one way to refer to information that's already been out there, that I've already talked about—just something to put on the table. We'll put the pressure on President Williams to take us to lunch. [Laughter] President Williams.

MR. WILLIAMS. Well, thank you, Mr. Chairman. I would just start off with a comment about interest rates and lowering interest rates and the effect on spending. Nine months from now I'm going to have my 50th birthday, and I've been promised a midlife-crisis sports car. So I assure you that if interest rates are lower, I will spend more on that. [Laughter]

MR. BULLARD. You have a conflict of interest.

MR. WILLIAMS. If there is a silver lining to our current predicament, it's been that these events provide a laboratory for research that has increased our understanding of the effectiveness of monetary policy at the zero bound. Based on this research—and we've actually reviewed probably about a dozen papers—I think it's pretty clear that these types of programs, both LSAPs and maturity extension, are effective policy tools that could help lower longer-term interest rates at the margin. And I'll just comment that the staff memo that we saw today shows that either of these policy options would lower 10-year Treasuries between 10 and 25 basis points initially, and that's roughly equivalent to a 75 to 100 basis point cut in the fed funds rate. I actually view that as a very sizable policy action to the extent that these are equivalent, and I'm going to come back to that in a second. I'd also just say that obviously these policies aren't cure-alls, but I still think we should use them as appropriate given the constraints we face at the short end of the yield curve. I'd add that in the future, we'll likely need to broaden the set of securities that we purchase for the very reasons that President Kocherlakota and President Fisher mentioned. I think we'll need to consider going back to mortgage-backed securities—I know that's not a popular idea—so that we can make larger ongoing purchases without cornering the market for longer-term Treasuries. Moreover, research has shown that our past MBS purchases have had broad effects on private borrowing rates, making MBS purchases a potentially more potent tool than Treasury purchases. And, as Brian mentioned earlier today, the MBS–OAS spread relative to Treasuries has spiked upward again. That's, again, I think, an argument for at least contemplating broadening to that class of securities.

In terms of reducing the interest rate paid on excess reserves, I think that would be another way for us to provide a bit more monetary policy accommodation. It would also lessen somewhat—I'm just repeating the comments that I think have already been made—the confusing appearance that we are paying banks not to lend money while we're trying to ease policy in every other possible way. Cutting the excess reserves rate would push down short-term rates a bit. I realize that's a small change. I do think it would send markets a signal to lower their expected path of policy going forward, which would help reduce interest rates all along the yield curve—again, though, only modestly. And regarding President Rosengren's comment about how markets would respond or how much disruption you'd get, I also heard the same kind of thing—that money funds are really a part of a suite of services that are provided. So I would be surprised if lowering the interest on reserves to 10 basis points would cause a highly disruptive reduction in the money fund market.

Turning to monetary policy communication, I think that more transparency is desirable. Paragraph 2 of alternative A is a noble effort to communicate our long-run policy goals succinctly, and it's one that I support. I'm also sympathetic to the goal of providing conditional forward guidance, as in paragraph 4. I think this is very difficult to do, though, based on the wide variety of views in this room. And my main concern is that this approach will prove to be very challenging in terms of reaching consensus on these thresholds. It's very difficult to satisfactorily distill our policy strategy down to just two numbers, especially during a time of extraordinary volatility and uncertainty. Moreover, this approach focuses exclusively on the date of liftoff from low rates and provides no further information on the intended slope of rate increases after liftoff, which is equally or even more important for thinking about longer-term borrowing costs. I do want to add that I think it's essential that, if paragraph 2 makes reference to an inflation rate of 2½, there is a reference, such as in paragraph 2, to our longer-run goal of 2 percent. I think having just the 2½ percent number obviously would be potentially confusing.

So I am sympathetic to this approach. It's very difficult to do in practice. Luckily, I think there is a better way forward. I'm now not going to be the first person to mention this, but I will tilt at this windmill myself. I think that it would be a better approach if we were to include our individual projections about the appropriate path of monetary policy in the SEP. Like

Governor Tarullo, I see many advantages to this approach, but unlike Governor Tarullo, I will strongly advocate for it. Releasing our funds rate projections would accomplish everything that paragraph 4 in alternative A tries to do and, I think, much more. So let me emphasize a few advantages of this policy. First and foremost, releasing our funds rate projections in the SEP would clearly communicate to the public the most likely point at which we see the policy rate lifting off from the zero bound. That could be mid-2013 or later or earlier, as the evolving data warrant. Second, the range of our funds rate forecast would appropriately convey the disagreement and uncertainty we face about the exact liftoff point. Third, as our output, unemployment, and inflation forecasts evolve, so too would our forecast for monetary policy. This would give the public a genuine picture of the state-contingent nature of policy without any of the oversimplifications inherent in the simple thresholds of paragraph 4. Fourth, the steepness of our funds rate path after liftoff would provide very useful information to the markets that is not currently conveyed by paragraph 2 or 4, and again, as emphasized in the memo, the pace of tightening after liftoff can be just as important for influencing longer-term interest rates as the timing. Fifth and perhaps most important—and I really think this is the most important idea—is that having funds rate projections in the SEP, or at least having them internally, would help our policy discussions at this table. It would give us a better understanding of the range of views on the Committee and could help us better frame the debate about policy and the outlook. It might even help us find greater points of agreement regarding the future course of policy. To summarize, I support the use of forward guidance in principle, but I think we can do much better by publicly releasing our policy projections in the SEP or at least having them internally as part of our discussion. This would importantly communicate the most likely path of policy and the uncertainty and state contingency of that path, and again, it would shape the public's expectations about policy after the liftoff point, which could be just as important. Thank you.

CHAIRMAN BERNANKE. I think I need to mention a very ticklish governance issue that you raised, though. The interest rate is set, of course, by the FOMC, not by everyone around the table equally. Would you somehow identify the FOMC projections vis-à-vis those nonvoting, for example, in a given year? That's just a question for discussion.

MR. WILLIAMS. My view was that, just as the SEP has done, it would represent all the participants and be consistent with the forecasts of the participants.

CHAIRMAN BERNANKE. Okay. Lunchtime. Why don't we go bring our lunch back to the table, let's say at 1:35—that will give us half an hour, and then we'll commence again even if people are still eating at that time. Thank you.

[Luncheon recess]

CHAIRMAN BERNANKE. Okay. Why don't we recommence with our go-round. President Pianalto, you're next on the list.

MS. PIANALTO. Thank you, Mr. Chairman. I want to start by thanking the staff for the helpful background memos. I found them very beneficial. I am going to focus my comments around the questions that were circulated, starting with the potential efficacy of policy tools. In my view, the efficacy of balance sheet tools depends in part on the problem that we are trying to solve. Our experience with the second LSAP program leads me to believe that when the problem is an elevated risk of deflation, these tools, particularly balance sheet expansion, can be helpful. Balance sheet expansion seems to be effective in boosting inflation expectations. When the problem is a deteriorating outlook for the economy, the efficacy of balance sheet tools is more uncertain and likely to be more limited. As the staff memo indicates, either asset exchanges or purchases would have modest effects on bond yields. The associated effects on borrowing rates faced by consumers and businesses are likely to provide little further stimulus to the economy, in part because rates are already so low and in part because the effects of low rates are being hindered by other factors, including deleveraging by consumers and the uncertainty on the part of businesses.

Regarding reducing the rate of interest on excess reserves, in current circumstances, with short-term interest rates so low, the additional accommodation we could achieve by reducing the interest on excess reserves is likely to be pretty small. That said, it is generally a good idea to keep the interest rate on excess reserves close to the federal funds rate to limit the perceived subsidy to banks. So I can see some merit in the desire to reduce that subsidy, which seems to be a little large now. However, for the reasons laid out in the staff memo, I do worry about the potential for the reduction in the interest rate on excess reserves to disrupt markets for short-term funding.

Turning to the second set of questions, I support expanding our communication efforts more or less as laid out in the memo, but I would prefer to expand our communication efforts within the broader context of our existing economic projection process. I will comment on the specific questions. As I have indicated in previous meetings, I firmly believe that providing an explicit numerical objective for inflation would significantly improve our communications and, in turn, would improve the effectiveness of our policy. This is especially the case now as we face an uncertain inflation trend and with the unemployment rate still above 9 percent. In light of our dual mandate, it would also make sense to clarify our view of the longer-run equilibrium rate of unemployment, and I think the offered language does a good job of expressing the limitation of policy effects on unemployment.

I also believe that providing quantitative information on our reaction function could improve our communications. In particular, I think that coupling our Summary of Economic Projections with forward guidance based on economic conditions would allow the public to draw its own inferences on the likely timing that we would start to remove our policy accommodation. It would also lay out the conditions to which the Committee is likely to respond. For the reasons discussed in the background memo, using economic conditions would offer a number of advantages over using just a date, and in fact, it would eliminate the need for a date. When we are able to find a way to eliminate the date from the current forward guidance, including our federal funds rate forecast in our SEP could provide a viable alternative to the use of economic conditions in the forward guidance.

Finally, I think that some version of the draft language in alternative A could significantly improve our communications when coupled with information conveyed in the SEP. So, Mr. Chairman, I support the suggestion that you made earlier that we might want to make a reference to the SEP in our statement. The draft wording on the long-run objectives in alternative A, paragraph 2, seems effective as written. I think that the language elaborating on our forward guidance in alternative A, paragraph 4, could be effective with some modifications. First, as I just indicated, I would prefer to modify the language by dropping the date condition. Second, I would prefer a slightly different wording for the inflation condition. Specifically, I would prefer not to state that we are willing to allow inflation to rise to 2½ percent in the medium term, because I am concerned that that statement would take away some of our hard-won credibility on price stability. To me, it would be much better to use a condition of, for instance, “as long as inflation is projected to remain near 2 percent in the medium term.” This keeps the focus on our long-term target, but it recognizes that inflation could at times run above or below our target. Mr. Chairman, you would undoubtedly be asked what "near 2 percent" means, which could easily be described as "plus or minus ½ percent on a four-quarter basis." You could also acknowledge that the Committee would feel obligated to comment on circumstances where the inflation rate might go beyond these bounds. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. First Vice President George.

MS. GEORGE. Thank you, Mr. Chairman. Given that I've stepped into a conversation that's been going on for some time, I will keep my comments brief. On the balance sheet tools that are described by the staff, I think, as others have noted, that the benefits would be small at this stage in the deleveraging process and uncertain, but depending on the conditions under which we think those might be most useful, exploring those further would be warranted. That said, the asset purchases bear the largest longer-term cost and the conditions under which we might undertake those would be those we would need to think most carefully about.

I do not believe that reducing the interest on excess reserves would be especially effective at this point. I doubt it would stimulate bank lending, and I would be interested in knowing more about its impact on money markets, notwithstanding President Rosengren's reaction to that.

I would prefer to consider the communication alternatives, as have been outlined in these memos. I think maintaining a clear commitment to price stability is important, although it is not clear that markets or the public at this point doubt our commitment or even that they doubt our inflation objectives. The comments that have been made at this point about the use of an unemployment rate do require that we have good communications with the public and that they understand the context in which we would be talking about unemployment. I also have questions about providing more-explicit, quantitative information about the Committee's reaction function, and in that regard, I would like to discuss further Governor Tarullo's memo and his comments about the importance of other variables in that reaction function, including financial stability concerns, asset bubbles, and financial imbalances. Finally, as I've discussed with our staff, I think exploring more the use of the SEP projections could have potential use for us in the broader context of our communications going forward. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS: Thank you, Mr. Chairman. Let me say at the outset that I generally agree with all of your opening comments on flexible inflation targeting. I think if we were very clear on exactly what that conveys, that would go a long way toward helping with the current situation.

The premise of this discussion today is, what should the Fed do if more monetary accommodation is called for but the fed funds rate is stuck at the zero lower bound? There are two key channels for transmitting more accommodation, and they've been discussed already at great length. The first is to use our balance sheet and work the portfolio-balance effects. The LSAPs, the MEP, and the RMEP all work that way. The second is to provide greater forward guidance on an accommodative monetary policy stance. We can do this by signaling a larger amount of monetary accommodation over a longer period of time. Strong accommodation would be to keep short-term policy rates at zero for an admittedly uncomfortably long period of time. This lowers real interest rates owing to higher inflationary expectations. I would say that given nominal rigidities in labor markets, higher inflation for a time likely would facilitate better matching and hiring as well.

But one of the big problems—and it's been alluded to by Presidents Bullard, Kocherlakota, and Plosser—is the time-consistency problem of promising to have more inflation than what our perceived inflation objective is. Central bankers will withdraw accommodation prematurely because they don't like higher inflation, even modestly above a longer-run target. And of course, external criticism feeds this response, and it's very difficult to counterbalance those influences. Now, logically, these perceptions among the public make our current policy stance more restrictive because there's more of a probability attached to the possibility that we might raise rates prematurely. So an additional tool to provide added accommodation would be greater clarity of our forward intentions. Stating economic triggers for a state-contingent policy response can help us. Doing this in conjunction with a maturity extension program or asset purchases would strengthen the commitment to persistent accommodation. I have a different view than President Bullard on this. I think that that would actually be successful in helping display credibility.

The Board staff's analyses provide compelling evidence that further accommodation can be delivered with reasonable safeguards and acceptable risks, in my opinion. FRB/US and other Board models are the only reasonable macro models that are available to help us to sort through this at the moment. These models incorporate both sensible, modern macroeconomic analyses and empirically reasonable matches between the model and the data. Simplistic real business cycle or New Keynesian structures that can't explain basic features of quarterly or annual macro data can't be called upon for guidance here. Our Fed DSGE project is making good progress, but it's not far enough along to provide alternative answers in those frameworks, and we need to make decisions sooner than we're going to be making progress on those DSGE models.

President Bullard mentioned a New Keynesian model with search by Ravenna and Walsh. I confess not to have been familiar with this paper, and it's got a labor market and so that's good, but as macroeconomists, we tend not to be troubled by the fact that we don't have labor markets in these models. Charlie and other early contributors to real business cycle theory didn't worry a lot about particular details; that's part of the art of it. When I asked the staff to look at this model, they summarized it this way: The Ravenna and Walsh model is not an empirically credible basis on which to base the actual conduct of monetary policy. I say this because the article's policy prescriptions are driven almost entirely by an empirically implausible factor. In particular, the model says essentially that the high levels of unemployment we currently see are due to workers having magically become much more powerful in their wage negotiations with employers. They're able to bid the wage up to a high level; they're thrown out of work; the unemployment rate is high—that's a key feature in the model's supply structure. It's not necessary to point out how ridiculous that sounds in the current period. We understand these factors about supply effects in these models, and I don't believe these influences are relevant for today's 9.1 percent unemployment rate. We talked about it in January, and I don't think we made a lot of progress here. The way to artfully interpret FRB/US and other models that may or may not have a complicated labor market is to think through those types of factors and whether or not they sound reasonable today. To me, they don't.

The analyses from FRB/US and company provide a wide variety of comforting risk assessments associated with a forward guidance that's based upon unemployment and inflation triggers. I won't repeat those presentations. I found them to provide strong support for these positions. The caveats are well known and can be taken into account, and Mr. Chairman, I thought that you were exactly on target when you opened up by saying that this is sort of like having in our statement something like, "Well, it's going to be this way until the Red Sox win the pennant." We could go further. We could do it and say "until the Chicago Cubs win the World Series." [Laughter]

CHAIRMAN BERNANKE. Incredible. [Laughter]

MR. EVANS. Well, we have the inflation trigger, which is the safeguard against that. So if structural unemployment is higher than most of us think and I'm wrong about the labor market assessment earlier, then strong monetary accommodation will lead to medium-term inflation pressures sooner than I expect. The role of the inflation trigger is to provide a good safeguard against this adverse outcome. If longer-term inflation expectations become unanchored, we will see evidence of this from financial market data and surveys. In addition, medium-term inflation will move up more quickly than I expect. Again, the role of the inflation trigger is to provide a good safeguard against this adverse outcome.

After reviewing the analyses, I continue to feel that a reasonable and aggressive set of triggers, if it was a decision today, would be 7 percent for unemployment and 3 percent for medium-term inflation. With an inflation objective of 2 percent, I think that 3 percent inflation is a reasonable statement of symmetric preferences around our objective. Having said this, I agree with President Kocherlakota that it's very important for the leadership of the Committee, if we were to go this route, to clearly communicate what our intentions are about inflation and inflation above our objective, what it means for flexible inflation targeting. Just using that phrase might not be enough. And in fact, I think that the concerns that President Bullard has about the worrisome zero inflation equilibrium would also be mitigated by the leadership speaking about intentions toward higher inflation because that would be a move away from that equilibrium.

Turning to the specific questions and just to finish up, let me reorder them according to my preferences. First, I think it would be most effective to continue providing some form of aggressive forward guidance. The use of "mid-2013" was helpful in the context of wanting to provide more accommodation, which last meeting I did. Providing economic triggers like the unemployment rate and medium-term inflation is the better way—by adding a more credible commitment. Level targeting might be best, although I think the benefits of aggressive triggers with inflation safeguards may be close to the benefits of level targeting. Second, announcing complementary purchases that aim to reduce long-maturity term premiums can provide powerful support to the forward guidance. I find the MEP approach to add acceptable accommodation at the outset; the reinvestment is a good addition, too, but these may not be enough. In the event that no meaningful progress is made in moving closer to hitting the triggers, adding further asset purchases would increase the level of accommodation. And with enough forward guidance, perhaps President Bullard's pace of purchases program would be appropriate at that later time. Third, I think that reducing IOER as much as is feasible would help a bit, too. It would be useful at the margin to provide disincentives for financial institutions that currently prefer cash over lending.

On the particular questions related to monetary policy communications, I support providing more-explicit, quantitative information about the Committee's longer-run objective for inflation and its projection of the level to which the unemployment rate will converge. And I can think of no reason to preclude discussions of the unemployment rate—or the output gap, if that was preferred—as they are critical objects for making monetary policy, and we need to be transparent. I approve of the general idea of providing information about the Committee's reaction function, like the economic and inflation triggers I discussed earlier and in August, and I find the language in alternative A, paragraphs 2 and 4, to be quite appealing. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Coming 11th in the order, I just note that President Kocherlakota's dictum has the corollary that you would expect those coming late in the order to speak less rather than more. I'll note as well that that's sometimes true, not always. [Laughter] But actually in this case, it will be true. I'm going to just work through the questions briefly and allude to points that many others have made that I agree with.

I think quantitative effects of balance sheet tools are very hard to assess. I applaud the staff's presentation of the term structure model, where assumptions of how things are put together are pretty transparent, but estimates on those models have their natural weaknesses. I think it's a great step forward, but they're obviously sensitive to modeling assumptions, and that's particularly true with implementations of the habitat model, which, on theoretical grounds, is a bit tenuous. And I'd note that one thing left out of the whole discussion is the question of whether there's habitat within a maturity class. This goes to President Fisher's point about the relationship between the 10-year Treasury and the 10-year corporate bond. There's nothing about habitat theory that rules out an imperfection in arbitrage across those two securities, which further loosens the connection that Treasuries have. Other assessments of effects of balance sheet tools rely on program announcements, and these are obviously contaminated by the effects of what our announcement says about the future of the economy—and so by the effect of downward revisions in private growth and inflation forecasts. I think those are hard to get a handle on as well.

To me—and this is a casual empiricism—last fall's policy initiative seems to have had only a small and relatively transitory effect on real economic activity, and in contrast, I think it probably had a more sizable and longer lasting effect on inflation. That colors my sense of what effect a maturity program or another LSAP would have.

I'm persuaded by President Rosengren's views that a reduction in the interest rate on reserves is unlikely to horribly gum up financial markets as we know them. We should view that as feasible and put it on the table, but I agree with President Lockhart that it doesn't look like it is likely to have gigantic effects. It doesn't look as though marginal changes in borrowing costs are going to have a notable effect on marginal willingness to spend now or invest now.

Quantitative information about a long-run inflation objective, I think, would be very useful. I'm still very much for an explicit numerical objective for inflation. I find myself very resistant to the idea of including explicit numbers about unemployment. I'm not convinced we can do justice in a sentence or two in the statement to the distinction between the role of our unemployment forecast and our inflation objective in monetary policymaking. We forecast a lot of things. Putting an unemployment rate forecast in the statement in very close proximity to a statement, first ever, of our jointly agreed inflation objective, even if it's identified the way we tried to in A(2), is inevitably going to lead to some confusion, and it's going to be hard to make that distinction. I don't think the idea of a dual mandate should prevent us from stating an objective for inflation alone without mentioning what we think unemployment is going to do in the same paragraph. As I've pointed out before, we in fact have three legislative goals, the third one being moderate long-term interest rates. We're actually doing quite well on that. [Laughter] I don't think we get enough credit for that. So why don't we factor that into our communication plans? But in any event, the economics and history are very clear that central banks are held responsible for inflation in a way they aren't and shouldn't be for unemployment because that's what central banks can directly control and can directly influence. And as you've said, Mr. Chairman, keeping inflation low and stable is the best contribution we can make to—and I'll add moderate long-term interest rates and—maximum employment.

About this trigger-strategy reaction function idea, I think including a reference to an unemployment rate there is a very bad idea for the reasons I've just described and for reasons that others, President Bullard and Governor Tarullo, have mentioned. But this problem about confusing it with the target is even more problematic in paragraph A(4) because we are directly linking it to our policy in a way we don't in paragraph A(2). As I said, I was stunned to see the discussion on CNBC this morning, where people were talking about the possible things we would do today, including this idea of setting numerical triggers, and they were referring to it as our unemployment target. Now, we could presumably push against that, but I think that's a signal of how hard we'd need to push and what kind of communication challenges we'd have. I could support contingency language on inflation and a reaction to that, but I'm persuaded that it would be better to explore other options and pursue those—like President Bullard's suggestion of an inflation forecast, like the idea many have suggested of including information on our projections for interest rates in the SEP.

Let me comment on something that you put on the table, Mr. Chairman, the idea of—I'm not quite sure what words you'd find satisfactory—temporarily tolerating a higher inflation rate. I think President Plosser is very articulate about these reasons, but I'll mention a couple of things in addition. This sets a precedent that will be with us for decades and be relevant to people's interpretation of our policymaking for decades to come. We've come to be viewed as wanting inflation to be 2 percent, but I think that to officially temporarily abandon that for a time is just going to make it harder for us to get back to the place where people think we're focused on 2 percent. I am persuaded that it's just going to be very hard for us to do this with credibility and to limit ourselves to just a percent or two if what we're really pursuing is unemployment. I understand this symmetry argument that inflation went down to 1 percent, and we didn't act as though our hair were on fire, and so I guess we shouldn't at 3 percent. But there's a difference here because when inflation was 1 percent, we weren't trying to drive it further in order to reduce employment growth, and to use that as an argument for being willing to take actions to drive employment growth up when inflation is above 2 and it shows no sign of going down, I think, is a very different matter. So we should be very cautious about that. I don't see a way to pull that off, given where we are now. Those are my comments, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. This has been a pretty abstract conversation, and I think that bothers me a little bit because we actually have to make real decisions tomorrow about what we're going to do to support economic activity. This is hard because we're really searching for the best tools and framework consistent with making financial conditions more accommodative, and we're reaching the limits of that effort. At the same time, we also want to select those tools and frameworks that don't box us in, in terms of future action. I think that over the past few years, we've been a little bit too single-meeting-centric, and we need to think about how what we decide today affects our range of choices and options at the next meeting and the meeting after that. It's important that we make choices with respect to tools and framework that don't box us in going forward. We also have to recognize that anything we do, we're doing it in a very uncertain environment. If things evolve in a very different way than we anticipate, we have to make sure that our credibility is robust to those unanticipated developments. I think that is something we have to think about as well.

The staff has done a lot of great work, and there are a lot of alternatives on the table. They all have their warts, and that's reflected to some extent in the conversations around the table. In what follows, I'm going to advocate a few things, but I do have reservations about almost all of the options to one degree or the other. I think that in a lot of ways we're trying to select the least-bad options in some ways to provide additional monetary policy stimulus. Just because they're not great doesn't mean we shouldn't do them, as long as the benefits exceed the costs.

Now, in a perfect world, I would prefer another sizable LSAP program for two reasons. First, I think we are more confident about how it works relative to the maturity extension program. We have some theory about how the MEP would work, but we haven't actually observed it in practice. We might see a greater disruption, for example, of market function than we anticipate. My understanding is that, as proposed, we would own as much as 70 percent of the outstanding CUSIPs in some of the longer-dated Treasury issues, and we really just don't know what that means in terms of market function. Also, the MEP would require us to sell short-dated securities. So it might increase yields in the short-dated sector by more than we anticipate. Second, I believe that, the staff memo notwithstanding, an LSAP of the size that the staff memo has proposed probably is going to be more powerful than the MEP. I was a little skeptical of the staff memo using the 10-year duration equivalence as our sole metric in weighing the MEP versus the LSAP. That implies that $1 of 30-year Treasury purchases is worth about the same as a little bit more than $2 of 10-year Treasury equivalents, and I'm just not sure that's right. I wouldn't be surprised at all if preferred habitat and other things could cause that relationship to not be quite that straightforward.

Another reason why I think the LSAP would be more powerful than an MEP program is that it's potentially open ended in terms of size. We can only do the MEP program once. Once we've done our duration extension, we're done, and the market knows that. The LSAP program would be more powerful because it would also change expectations about what might happen in the future should the economy deteriorate more than what we expected. I worry somewhat about an MEP program because it might actually send a signal that we're done—this is the best thing we could come up with, this is all we've got, and we're done. And I think that would be very disturbing. If we do go forward with the MEP program, I'd certainly like to have some communications that strongly imply that the LSAP is not dead under all conditions. In other words, if things got bad enough, this could be brought back and put on the table. I think it's very important in our communications that we don't signal that we're out of ammunition.

Now, I said in a perfect world I would favor more LSAPs, but we don't live in a perfect world, as we all know. There are some really significant political constraints that make an LSAP a less-attractive option. If we were to do an LSAP, there would be a huge political uproar. Now, I don't really think that just because we get an uproar means that we shouldn't do a program. But if the uproar undercuts the efficacy of the policy, then you have to treat that as an environmental factor, and you have to view that as relevant in conducting policy in the real world. The attacks on LSAP policy—the claims that we're monetizing the public debt, the claims that we're playing politics—really would generate two bad consequences that we have to take into consideration: One, it would undercut the effectiveness of policy, and two, it would undermine our credibility. Let me just be very clear here. I'm not saying that we shouldn't do something because of political pressures. We should resist political pressures. We should do what we think is right, but if the political pressures mess up the policy, then we have to take that into consideration in the policy that we pursue. At the same time, I think we should probably be more aggressive in pushing back against these political pressures, because we can have some impact in changing people's perceptions about how damaging an LSAP would be or wouldn't be in the future.

If an LSAP is off the table for the time being, what would I propose? Well, the first thing I want to propose—I want to put this on the table now even though it's not part of the questions—is that I think we should invest the maturing agency MBS back into agency MBS. And the reason for that is Brian's chart 17 and handout, which showed that the mortgage basis between mortgages and Treasuries is now wider than it has been at any time in the past six years, except for the heart of the crisis. So we've really seen about a 45 basis point widening in the mortgage basis, and I think that if our goal is really to make financial conditions more accommodative, this is a very good way of doing that. The second benefit of doing that is that there will be a surprise to people, and so we've actually put this back on the table when people thought it was off the table. And I think it actually would tend to compress the mortgage basis by maybe more than the actual purchases because people would realize now that if the mortgage basis widens out, the Fed is likely to intervene, and that would make holding mortgage-backed securities less risky for private investors. The third benefit of reinvesting the maturing agency MBS into new agency MBS is that it would also mean the MEP program would be a little bit smaller at the margin. Some of the market disruption issues in terms of us owning 70 percent of long-dated Treasuries would be squeezed down a bit. My understanding is that we're anticipating over the next year that about $200 billion of mortgage-backed securities are going to mature. Obviously, it depends on the path of interest rates and a whole bunch of other things, but if that was the case, that would mean that rather than buying $600 billion of long-dated Treasuries under the MEP program, we'd be buying $400 billion. So I think you really would reduce considerably some of the market disruption issues that bother some people about the MEP.

What about interest rates on reserves? I've wrestled with this a lot, and I guess I think that at the end of the day, I'm 60–40 against rather than 60–40 for, but don't ask me precisely why, [laughter] because it's really hard. We all agree that it would have a very small benefit in terms of financial conditions, but what we have to weigh against that is the cost. And the fact is, it's very, very hard to assess what the cost is because I think what everyone is worried about with respect to reducing the IOER is that there's going to be a set of unintended consequences in terms of what happens to money market funds, what happens to the money market more generally, what happens to it if you have negative interest rates. We just don't have a very good way of dimensioning how significant those costs are. So it's a judgment call. If the sense of the Committee was the other way, I would go the other way, but I'm modestly against, just because I think that the benefits in terms of financial conditions are very tiny and I'm uncertain about what the costs are.

Question 2(a) was on explicit, quantitative information about the Committee's long-term objectives, like paragraph 2 of alternative A. I'm certainly willing to do this, but I personally think the benefits of doing it are actually very modest. I think that the SEP projections already show what our long-term outlook for unemployment and inflation is. The distribution is pretty tight. The market participants already interpret these projections as our objectives. So we could do it, and I don't have a real problem with doing it, but I just don't think that this idea that somehow this is a huge major advance in what the Committee is doing is accurate.

Regarding question 2(b), "Do you approve of the general idea of providing more explicit, quantitative information about the Committee's reaction function?" I do, because I think providing more information about our reaction function will reduce uncertainty, and that will reduce risk premiums. It will enable market participants to more accurately map the implications of incoming economic information in terms of the likely path of short-term rates. I think policy will then automatically adjust to incoming information in a countercyclical way, and that's a positive. We've been talking about these parameter values as triggers. I guess I view them a little differently. I view them more as an escape clause. If they are reached or other conditions fulfilled, then we might tighten monetary policy. I guess I don't view them as a trigger event. So I think that's something that we're going to have to settle if we go down this path as a Committee—exactly what do these parameters mean when they're reached? Are they triggers or are they escape clauses? We should include both inflation and unemployment rate parameters that might be viewed as necessary conditions for a rise in short-term rates, but I also think we should include the date at which we think those conditions might be satisfied. And keeping the date in there is important because if we just provide employment and inflation parameters market participants are still going to try to work out what that means in terms of a date. If we don't give them a date, they're still going to work out what the date is. And if they're going to work out the date, why not provide them with the date and give them more accurate information? At the end of the day, what they really care about is the path of future short-term rates, and therefore that date is very key in terms of determining their expectation. Now, in terms of keeping the date in, I don't see the date as standing by itself. I see it as the logical consequence of our projections of when the parameter values will be met. So the date is a follow-on from the parameter values. It's in there, but it's only in there because the parameter values are what drive it. Concerning the date, if we had it in there, I wouldn't be overly precise about adjusting it meeting to meeting. I don't think we want to say, "It's August, and then it's September, and then it's back to August." I would anticipate that, just as for the federal funds rate, we adjust in quarter-point increments, we might adjust this in quarterly or six-month increments.

The next question was on the language in paragraphs 2 and 4 of alternative A. I think there's some reluctance to proceed with paragraph 2 for a whole variety of reasons, but one of them is this notion that the Congress might need to be informed of actually pursuing an explicit inflation objective before proceeding with that. If you thought that was an issue, I think there's another way to go. A lot of people around the room thought that maybe we shouldn't go with an explicit inflation target and should rely more on the SEPs. In my mind, as an alternative, you could dispense with paragraph 2 altogether, and in paragraph 4 you could add a sentence after the parameter values that read something like this: "Because the unemployment rate is projected to remain far above its long-run projections for the next few years, the Committee is willing to tolerate temporarily a move in inflation slightly above the rate it projects is likely in the long run in its central tendency SEP projections." What that would be basically saying is explaining why the inflation parameter is 2½ percent rather than 2. It's not a target. It's just something that you're willing to tolerate for a short period of time because you're so far away from your employment objective. It makes it clear that the Committee is not changing its long-term goal for inflation. I think that is a potential alternative to paragraph 2 and it's something we can discuss further.

In terms of the SEP, just a few general thoughts. The SEPs can also be part of this whole process. Right now we have an SEP in which we write down our forecast, but the SEP could actually be used as part of this trigger mechanism development process. We could ask questions in the SEPs that said, "When do you think your forecast is going to hit these parameter values?" And people could answer that question, and it would be interesting to see how people mapped the parameter values in terms of where they came out regarding dates. So maybe we should think about the SEPs as providing a somewhat richer mechanism for figuring out what appropriate triggers are and what appropriate exit dates are. I have a lot of sympathy with people around the table who say the statement can only do so much. I think we've been asking an awful lot of our poor little FOMC statement over the past couple of years. And maybe we need to think about alternative ways to take a little bit of pressure off the statement. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I greatly appreciate the detailed staff analysis of policy options relating to our securities holdings and communications. I'll comment just briefly on the maturity extension program and IOER and devote most of my remarks to questions about clarifying our policy goals and reaction function.

Regarding the maturity extension program, I think the likely benefits outweigh the costs. Estimates of the program's effects on financial markets and the macroeconomy are subject to considerable uncertainty, but it seems plausible that the overall impact might be broadly similar to that of QE2, perhaps generating an additional 500,000 jobs or so over the next couple of years. Indeed, viewed as a form of jobs package, this program seems cost effective. Under the modal outlook, the program would have only negligible effects on the present value of our transfers to the U.S. Treasury, and under an alternative adverse scenario like that shown in the staff memo, the implied cost per job appears to still be under around $200,000, which seems quite low compared with many other proposals for stimulating employment. This is, as many have mentioned, a one-shot action, and certainly, if there were further deterioration in the outlook, I'm very open to considering further LSAPs to provide additional stimulus. I also agree with Vice Chairman Dudley that it makes sense to consider broadening our purchases or, alternatively, our reinvestment of runoff from our MBS portfolio back into further MBS purchases.

As for interest on reserves, I think cutting it to 10 basis points would provide a modest stimulus to bank lending and economic activity. I recognize that a reduction in IOER might induce more banks to charge an explicit fee on deposits and that the public reaction might be negative. That said, I agree with President Kocherlakota about this. Such a tax on money holdings provides stimulus to the economy by inducing some shift in private portfolios away from cash and into riskier assets, whereas he mentioned into spending. I'm concerned about the increasing volume of negative commentary that the $4 billion per year we're paying on reserves when prevailing money market rates are lower constitutes an unwarranted subsidy to banks. I do recognize, though, that a cut in IOER could have some adverse and unintended consequences for money market funds, the federal funds market, and other aspects of market functioning, perhaps making it an inadvisable time to make such an adjustment.

Let me turn next to the clarification of our longer-term goals, which is something I strongly support. As an old-timer, I intended to brag about participating in the FOMC's very first discussion of this topic back in 1995. In fact, I printed out my remarks here [laughter] from that meeting, two pages, and the seven subsequent discussions in which I've participated. I contemplated the idea of simply repeating what I'd said back then. Nevertheless, I used the FOMC Secretariat's handy web search tool, and I was astonished to discover that the sequence of discussions of this topic actually stretches back much further into the distant past. For example, here's an excerpt from a list of questions that the Committee discussed on a Monday afternoon in August 1983: "Should ultimate economic goals be given clearer expression in conveying FOMC policy intentions to the public through, say, a specific numerical statement of objectives—"

MR.TARULLO. What year was this, Janet?

MS. YELLEN. 1983—August 1983. —"or should expressions about ultimate economic goals continue to be limited to general qualitative statements?" That question sounded eerily familiar. [Laughter] So, too, did the answers. Preston Martin, who was the Federal Reserve Board's Vice Chairman at the time, specifically recommended the adoption of a 2 percent objective for consumer price inflation. In every Committee discussion, there's been widespread consensus on the benefits of adopting a numerical inflation objective, which, for the sake of time, I will not repeat at this point. As I look back on all those previous discussions, what's most striking to me is how frequently the Committee had reached the very threshold of consensus, only to become stymied by details that seem trivial in retrospect.

I think this is a good time to move forward. Indeed, there are a number of reasons why this may be a particularly propitious time to formalize the Committee's longer-run goals. From the standpoint of internal decisionmaking, all of us agree that monetary policy is fundamentally responsible for the longer-run inflation outlook and for ensuring that longer-run inflation expectations remain firmly anchored, whereas the longer-run outlook for economic growth and employment is largely determined by structural factors. We have reached a broad consensus that a PCE inflation rate of 2 percent would be fully consistent with our statutory mandate. Our longer-run unemployment projections generally lie in the range of 5 to 6 percent, and we all agree that those projections are intrinsically uncertain and subject to revision.

Moreover, I want to take a moment to dispel any notion that communicating an estimate of the longer-run sustainable unemployment rate is somehow inconsistent with flexible inflation targeting as practiced by other central banks around the world. For example, here's an excerpt from the Swedish central bank's October 2010 *Monetary Policy Report:* "The Riksbank conducts a policy of flexible inflation targeting . . . with the aim of attaining an appropriate balance between stabilising inflation around the inflation target and stabilising the real economy." The Riksbank regularly publishes its estimates of the longer-run sustainable rates of output growth and unemployment, and its *Monetary Policy Report*s show how actual output and unemployment are expected to converge over time to those longer-term sustainable paths. In a paper delivered last week at Brookings, Lars Svensson noted that policymakers at the Riksbank scrutinize optimal control exercises and simple Taylor-style rules in much the same way that we do here at the Fed. Moreover, the Riksbank is by no means unique. The Bank of Canada, the Norges Bank, and the Reserve Bank of New Zealand each use similar language to describe the practice of flexible inflation targeting, and each central bank publishes estimates of the gap between actual resource utilization and its longer-run sustainable rate while noting that such estimates are uncertain and subject to revisions.

As for the Federal Reserve, information about our individual assessments of the mandate-consistent inflation rate and our longer-run projections for unemployment has been published regularly in the SEP since early 2009. Over the past year or so, the Chairman has addressed this topic in a number of highly visible speeches and congressional testimony and in his press briefings in April and June, and many of us around the table have highlighted these goals in speeches and media interviews. So I believe clarifying our longer-run goals in an FOMC meeting statement as proposed in paragraph 2 of alternative A would be seen as a helpful and only incremental step in the ongoing enhancement of our public communications.

Let me turn next to the idea of providing more-explicit, quantitative information about the Committee's reaction function as in paragraph 4 of alternative A. This is an approach I strongly support if it's coupled with an explicit numerical statement of our longer-run objectives as in paragraph 2 of alternative A. The use of such explicit, quantitative forward guidance could be tremendously helpful in clarifying for markets and the public the connection between our economic outlook and the anticipated timing of policy firming. Absent the introduction of such conditional thresholds, I can imagine all but endless discussions in this Committee about whether to change the date for liftoff in our statement in light of ongoing changes in the economic outlook. In contrast, if we proceed to quantify the conditionality of the forward guidance, the need to specify calendar dates would diminish and perhaps disappear completely. Under a modal outlook like that of the staff, in which unemployment is declining only gradually and inflation remains below 2 percent, it seems reasonable that we would keep the funds rate targeted at its current setting until the unemployment rate drops below 7 percent. Of course, the evolution of aggregate demand would determine the timing of that outcome and hence the calendar date at which policy firming is likely to commence. For that very reason, spelling out the conditionality of our forward guidance would serve as an automatic stabilizer. Further deterioration in the outlook would cause investors to automatically push back the likely date of policy firming and thereby lead to more-accommodative financial conditions, while an unexpected strengthening in the outlook would have the converse effect.

As the staff memo indicates, such quantitative forward guidance might provide little or no stimulus if the medium-term inflation threshold were set at 2 percent. In contrast, the memo shows that a modestly higher inflation threshold of 2½ percent, coupled with an unemployment trigger of 7 percent, could provide meaningful policy stimulus by pushing back market expectations about the likely timing of policy firming. Moreover, such guidance could be helpful in clarifying that the anticipated path of policy would not necessarily shift in response to an uptick in core inflation or a transitory aggregate supply shock, at least as long as unemployment remains far above its long-run equilibrium rate. In my view, a modestly higher rate of inflation over the medium term would be completely reasonable in the context of a policy strategy that fosters a somewhat more rapid reduction in the unemployment rate. Under such circumstances, a clear expression of the Committee's longer-run inflation goal would help ensure that inflation expectations remain firmly anchored.

Finally, I believe that the forward guidance in our meeting statement should be viewed as a complement to the SEP and not a substitute. While the SEP summarizes the individual projections of all meeting participants based on each participant's own assessment of the appropriate path of policy, our meeting statements are crafted through a consensus-building process that inevitably involves compromises among people with disparate views. Moreover, the SEP provides quantitative information about each participant's modal outlook, whereas our forward guidance is explicitly contingent on economic conditions, conveying some information about our reaction function.

By the way, I would note that some foreign central banks do produce multiple sets of projections conditioned on alternative scenarios roughly similar to the materials at the end of Tealbook, Book A. Nonetheless, including alternative scenarios in the SEP might not be appealing to everyone at this table, and in any case, such an initiative would require a substantial period of consultation and development. However, given the significant interest that I've heard expressed around the table in policy projections and adding them to the SEP, I believe my subcommittee would be more than willing to continue exploring this and potentially bring back further recommendations beyond what we circulated in August to this Committee.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I'd like to start by thanking the staff for making sure that I didn't waste another weekend in unproductive activity. [Laughter] Also, I noticed that a number of the comments made by Vice Chairman Dudley are similar to my own, and I want to assure everyone that I did do my own work.

David Wessel observed in a *Wall Street Journal* article this week that "Federal Reserve Chairman Ben Bernanke has demonstrated a straightforward approach to his job: If the Fed forecasts unemployment will be far above normal and inflation is heading below the Fed's target, then the central bank should do something—even if no tool seems potent enough to fix the economy." I don't know how the Chairman feels about that characterization, but it pretty well describes the argument that has persuaded me so far to support QE1, QE2, and the "2013" guidance language in the August statement. I would add, however, one more factor to consider—that whatever we do should not have risks that outweigh its most optimistic positive benefit. This is the context in which I evaluated the alternative policy tools.

Turning first to the MEP and the LSAP—which I will call by their more popular names, the Twist and QE3—while I doubt that either is potent enough to fix the economy, I do think the risks are manageable. I prefer the Twist, as it is projected to have the same effect as QE3 without further increasing the size of our balance sheet. As to its efficacy, I'm pretty sure that if we're willing to buy enough of any security, we can affect its price. I'm less sure how much impact those lower rates will have on the economy. I'm especially concerned that the sectors of the economy most sensitive to long-term rates, the real estate sectors, are not responding normally. In particular, residential real estate is so burdened by the overhang of underwater homeowners, past-due mortgages, foreclosed properties, and tight credit conditions that recent declines in mortgage rates resulted in no pickup in purchase volume and only tepid refinance activity. Moreover, mortgage rates have not come down as much as they might have, because the current low-coupon securities seem to have a longer duration than existing higher-coupon securities and there’s less appetite for them. For this reason, and at the risk of causing President Lacker’s head to spin around, I would wholeheartedly support Vice Chairman Dudley’s suggestion that we should also consider purchasing MBS. At a minimum, we could reinvest maturing MBS into MBS rather than longer-term Treasuries and hopefully have a stronger effect on residential mortgage rates, which, in my opinion, would then strengthen the impact on the economy. This should also keep the percentage of total long-term Treasuries that we own lower than it otherwise might be. And given the evidence that the original Twist had a lesser effect on corporate rates, using the MBS could help ensure that this does impact the spread on mortgage rates. Even with minimal reaction in the mortgage market, the Board staff estimates that the lending–borrowing channel accounts for only about one-third of the projected effect on the economy, with two-thirds coming through stock market and exchange rate effects. So some benefits would be realized even given the weak mortgage market. And finally, because we’ve already engaged this tool, we’ve had some experience with it, and the market has had some experience with it. Thus, on balance, I can continue to support the use of this tool as the “something to do” when conditions are such that we should do something.

With respect to lowering the IOER, however, I have not heard anyone argue that it would be very effective, and I think it does carry high risks of disrupting market functioning. Given the cost of FDIC insurance and the requirement to include all assets in the FDIC assessment base, I think the FDIC has already gotten our 15 basis points. And now that demand deposits have unlimited insurance coverage, in a negative-rate environment, substantial funds could flow into deposits and thus cause leverage ratios to bind. If this happens, I believe that a BONY-like charge for excess deposits could become the norm. I’ll talk more about this in the next round, but banks are already reducing nondeposit funding and lowering deposit rates. I would point out that because branches of foreign banks don't pay FDIC insurance, the effect on them is different. I understand the optics, but the differential between U.S. and foreign banks is not of our making. The only room that banks have left to offset the decline in asset yields if we lower the IOER would be to create negative rates on retail deposits through an FDIC charge. Most banks did actually charge for FDIC insurance when the insurance rate went to $0.23 after the S&L crisis—therefore, I assume that the system capacity still exists—although that did result in the Truth in Savings Act, so at least this time the banks will have to be truthful about the negative rates that they might post.

The potential for negative rates could also easily disrupt money market funds. I don't want anybody to infer that I'm a fan of money market funds, but I'm already worried about their exposure to Europe, and I believe that destabilizing them would have far more negative effects than any benefits I can see from reducing IOER. Several of you are skeptical about the willingness of banks and money market funds to deal with lower IOER. But if some markets can go to negative nominal rates and others cannot or do not, a large volume of money could move to the place where returns are not negative and change the economics there. And finally, if we lower the rate and market disruptions do develop, what would we do about it?

With regard to using explicit, quantitative guidance as a tool, I believe that this tool is likely to work much better in theory than in practice. I think the reason for this is that communication, by its very nature, is more difficult to control than an action, such as purchasing a security or changing a rate. Whatever we say is subject to evaluation, interpretation, and response by many different listeners. Many of you have spent a good part of your lives thinking about this, so the communications challenge seems simpler. But we also have to communicate with the same people who still believe that the Fed doesn't have an audit. I'm not saying that I don't think we should discuss our preferences in speeches, testimony, and the Chairman's press conference. I just think that, however carefully phrased, asking the statement to carry the weight of this communication might be asking too much of it.

What I took from the memo is that to be effective as a monetary policy tool, communication would have to have two characteristics. First, it would have to communicate a future path for policy that is significantly different than what market participants currently expect, and second, it would have to be believed. In the memo's discussion of market reaction to the "mid-2013" language, the text states that "market participants generally appear to think that the Committee would raise the fed funds target before mid-2013 if necessary to prevent an increase in inflation to more than 2 percent over the subsequent couple of years, even if the unemployment rate were projected to remain well above policymakers' estimates of the longer-run equilibrium rate." Truth be told, I thought that was exactly what we were trying to communicate in discussions about an inflation target of 2 percent. In that sense, we seem to have already communicated very well. So my first question is, how likely might we be to get broad agreement on a reaction function that is different from this? Governor Tarullo makes this point in his memo. The more specific and numerous the data points included in any communication, the more difficult it becomes to get broad agreement initially and to maintain that agreement as conditions evolve and voting composition changes. The less agreement we have, it seems to me, the less certainty markets would have about the ultimate follow-through. And we don't make our statements in a vacuum. While I believe in the independence of our actions, I firmly believe we would be wrong to take or refrain from taking any action because of the potential political reaction, but that doesn't mean that there won't be a political reaction. When there is such a reaction, I do think that the strength and tone of it could and would influence market perception about the credibility of our statement. As an example of this, I would point to the widely held belief that blowback from QE2 makes the threshold for QE3 all the higher. I know the use of the 2013 date in the August statement is a less-than-satisfactory way of communicating, but it is now out there, and we should think very carefully about how and when we modify it and about how and when we might want to further modify whatever replaces it. Every time we change the language of the data points, we run the risk of more confusion.

Finally, before we jump straight to debating specific quantitative values, I think it's important that we make sure we're actually in agreement about frameworks, triggers, targets, and tools. Is the intent to change the 2 percent target for inflation or to clarify how it works? If we agree on the framework but not the specific values, then the option of communicating through the SEP makes sense to me. There's broad agreement on quantitative values that including those in the statement does make a stronger commitment. But the overall concept of the way we view our dual mandate needs to be well established before we start hanging values on it.

This is a time for everyone to make his or her own suggestions, so let me add mine. I think I would, once again, agree with Vice Chairman Dudley that we might ask a series of questions in the SEP phrased in the language of alternative A. For example, we define *x*, the inflation rate, and *y,* the unemployment rate, as they are outlined in alternative A, and then we ask each participant to write down his or her own preferences for *x* and *y* and publish those as part of the SEP. This would communicate the Committee's thinking in much the same way, but with perhaps richer texture than a potential 7–3 vote on individual numbers in the statement. Further, it leaves everyone free to discuss their own opinions without contradicting a statement. Also, as participants' perceptions, opinions, and forecasts change, or even as the participants themselves change, markets would have a way to judge the Committee's likely reactions in almost real time.

I'll end where I started. The David Wessel quote and the assessment of the reaction to the "mid-2013" language in the statement lead me to conclude that the market understands pretty well what's been going on in this room. Before we embark on a program to communicate a change, or even a refinement to that perception, we should be sure that we are broadly and fully committed to whatever change we plan to communicate, and we should create a communication framework that has flexibility to continually update markets on how our decision frameworks, targets, triggers, and forecasts are evolving. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. You're getting the lingo down really well. [Laughter]

MS. DUKE. "Credit constraint," "liquidity constraint"—I've got those, too.

CHAIRMAN BERNANKE. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. I intentionally didn't draft up a statement because I knew I came toward the end and wanted to hear what others had to say. Also, I knew that if I drafted up a statement, I'd do what those of us at the end of the line always do, which is furiously scribble throughout everybody else's presentations to take account of what they've been saying. And I did want to pay attention today. So let me start with two introductory observations. One, as Richard said earlier, nothing that we've got on the table in a concrete fashion this afternoon is presenting us with a true contingency for something dramatic happening—the reemergence of really strong deflationary potential, the European crisis going hot, or even just a rapid deterioration of U.S. economic performance. And I do think it's important that we do some contingency planning along those lines, whether we call it something within the existing flexible inflation-targeting framework or some other framework. LSAPs, obviously, could be that, but we've only really considered LSAPs in the abstract today and not in any particular fashion. A second and related observation echoes something Betsy said a moment ago, which is that even though the alternatives we're considering today for possible deployment in the relatively near term are within the current framework, it's worth paying some attention to the relationship of one potential action to another, including possibly shifting toward a different framework like nominal GDP or price targeting. With communication likely playing a more prominent role in any further stimulus efforts, and with the importance of communication for the credibility of the Committee on an ongoing basis no matter what our then-contemporary policy instincts, it's all the more important to be clear about our strategy.

With those two introductory observations, let me turn to the specifics that are on the table today. With respect to maturity extension, I absolutely agree with what everybody said. It's a limited step, and it's self-limiting in a sense because there's only so much that you can do. But Charlie Evans said something that I'm going to echo, not in precisely the way that Charlie stated it. Because I believe that anything we do in the communication realm is going to take some work—it's going to take some work through the Chairman socializing it publicly, through our working on it and figuring things out—it may be difficult in the next meeting or two at least to take any steps that some of us may be inclined to take to provide for monetary policy stimulus. And the maturity extension proposal is something that, precisely because it is self-contained, does provide us an opportunity to utilize it for that limited purpose as we prepare ourselves to either do something or at least have a framework within which we could do something with more persistence.

The only other thing I'd say is that it would be important for the efficacy of this measure that the Treasury debt program not undermine the efficacy of the MEP by shifting the duration composition of the Treasury debt that's issued. I know that what they've been doing over the past year or year and a half has been in accordance with a plan that they had, and it wasn't opportunistic in responding to what we had done. But I don't think there's much question that to some degree, the shift in the composition of the debt that they issued did have the effect of reducing the effectiveness of our own LSAP programs.

Turning to communication, this is obviously a much bigger issue. I think it is pretty clear that we are going to need to do something—hopefully sooner rather than later—to help market actors and the public understand the implications of the mid-2013 date that we inserted in August into our statement of expectations for low rates. It's not in a strict sense necessary that whatever is done to provide clarification be part of a broader change in communication efforts—or even that it necessarily be consistent with such changes—but it would be desirable.

I also believe, as more than several of you have commented, that one way or another the SEP needs work. And I think it needs work, as John suggested, not only because it may help produce real discussion, conversation, and clarity in our deliberations, but also because it could serve as a complement to the statement and the minutes for communication and transparency purposes. I'm still genuinely undecided about the best way to proceed on the discrete issue in front of us, notwithstanding John's very persuasive take-up of some of the things I said in my heuristically intended memo of last week. It was an idea, not a proposal, and it's never quite the same thing to compare an idea with a specified proposal. So I think that before one selected between this and the reaction function approach, one would need to fully elaborate something so that you could poke holes in it as well. Having said that, and having listened to John today, I do believe it would be worth developing something specific that could be compared during the intermeeting period with the reaction function language that is embodied in paragraphs 4 and possibly 2 of alternative A.

I don't want to rehearse everything I said in the memo last week. Just a couple more comments on the reaction function. When I was listening to Bill and Charlie and Janet—all of whom, I think, are proponents of this—I did pick up some differences, which I think we'll probably have to clarify. Charlie and Janet may not intend this, but I heard Bill to be thinking that the paragraph 4 language is more contingent in some respects than I think Janet and Charlie were projecting, so we'd surely need to clarify that. My own view is that it's going to be read closer to a rule, and the contingent element of it will probably drop some no matter what we try to do. I would also say that I heard Janet advocate inclusion of paragraph 2. And I think, Janet, if I'm not mistaken, you said you thought it was essential, actually, to have the paragraph 2 language, whereas Bill was suggesting maybe it would be better not to implicate that set of issues. That will also make a big difference in how those numbers are perceived, and so one would have to think through the consequences of both of those as well.

With respect to the forecast-based approach, like Janet, I spent some time recently—I don't know if it was over your weekend, Janet—looking at Scandinavian central banks and reading their monetary policy reports, which are, fortunately, in English, with very good grammar I might note as well. And I think this may be the starting point. The Norges Bank was my central bank of choice, having looked at a few of the alternatives. As I said in the memo, a forecast-based approach doesn't require as specific an ex ante agreement among FOMC members as a reaction function. But I think maybe even more important than that—and I think the Norges Bank experience shows this—is that because it allows us to indicate the path we expect interest rates to follow, it provides more transparency, allows for better planning by market actors, and allows us regularly to incorporate what may become foreseeable about future developments, rather than relying on a quasi-rule with relatively fixed values. I also think, after reading the Norges Bank approach, that it's compatible with both flexible inflation targeting and price targeting. And so there's a certain suppleness to the approach that they've taken. A further advantage of it—which didn't occur to me as I was reading it this weekend but has in listening today—is its effort—it dates back at least to 1983—to deal with the recurring question of inflation targeting or targeting with a dual mandate that has consumed this Committee from time to time. What the Norges Bank does, of course, is to establish an operational target of 2.5 percent, but it then sets forth the criteria for an appropriate interest rate path. By setting forth these criteria, it maintains the inflation target but also gives a lot of emphasis to output gap and other relevant performance features of the real economy. Those are transparent in the alternative paths that you see in the regular reports of the Executive Board of the Norges Bank. So I think there's a lot of potential here not only to help with transparency but also maybe to get around this issue that keeps coming up—because I'll say, Jeff, as I listened to you today, I felt as though—while you didn't mean to do this, and you certainly weren't doing it explicitly—you read the unemployment mandate out of what we do here. If we can never talk about it, and we can't suggest that it plays an active role, then I think we begin to approach the point at which it's not really having the impact on our deliberations that the Congress intended.

I equally understand why so many people are reluctant to attach a number to the unemployment rate, and it seems to me that what's done by the Norges Bank doesn't provide a perfect answer, but it does help. It does give some clarity, and it gives some real meat to the notion that the path matters—how you're getting to the 2.5 percent matters. I also would say that Narayana mentioned duration in his introductory remarks. It does a bit of that as well, not as specifically and as quantified as you would do, but I was interested in the fact that it begins its summary by saying, “Based upon everything, we now”—in this case—“think interest rates should be rising over the next X quarters, absent unusual developments.” Of course, I’d drop a footnote here—their unemployment rate is 2.7 percent. So they’re in a slightly different position.

MR. KOCHERLAKOTA. It’s good to have oil, isn’t it? [Laughter]

MR. TARULLO. Yes. But inflation is 1.4, which is the really remarkable thing.

There are obviously disadvantages here as well. If we really did what the Norges Bank does, or something like it, we’d have to make significant changes in our institutional practices—not only the nature of the SEP, but also consider how the Norges Bank conducts itself. As I understand it, they meet two weeks before they actually make their interest rate decisions, at which point they do the equivalent of thinking about the Tealbook projections and have a discussion of that. They must be one cohesive group, because the seven of them seem to come up with something thereafter, on the basis of which, two weeks later, they make the actual interest rate decision. And that might pose cultural or logistical challenges for us to do something like it. That’s just one example of what might have to be done. So obviously, one way or another, some delay would be entailed in doing something really meaningful with the SEP. And this will convey a less precise reaction function, though again, this would assume that the reaction function is, in reality, quite firm.

The Chairman—in a question, I think, to John—asked about the delicate situation we have in that an entire group of 17 does our projections, but we only have, for right now, 5 plus 5 actually voting on interest rate policy. I guess, Mr. Chairman, I would say that I don’t have a specific proposal here. But it does seem to me that both are relevant. If one is looking for credibility, then the views and projections of the nonvoting members of the FOMC are quite relevant to providing credibility to markets at large, because even though Sandy and Jeff may not be voting now, they're going to be voting next year, or they're going to be voting the year after that. So their projections are also relevant. Thus, I might suggest a variant being two different projections if we couldn't come up with—as I suspect we couldn't—the consensus adoption (with modification) of the staff analysis that the Norges Bank seems to do.

Oh, one final point. I'm sorry. This is what happens with notes. Going back to the maturity extension point, I think John first mentioned today the idea of using MBS again, and then Bill and Janet spoke to it, and Betsy endorsed it as well. And I would weigh in there. I know that the earlier concern was that this looks like credit allocation, although I feel a little boxed in here: People don't want to do Treasury purchases because it looks like debt monetization; they don't want to do MBS purchases because it looks like credit allocation. If you conclude that you want to do purchases, you've got to purchase something. And it does seem, right now, for the reasons that Betsy and Bill identified, that we really could have more of an effect. As I'll mention later today or early tomorrow, since I think housing is right at the center of what is keeping us in this slog right now, anything that can be done to affect housing markets, even indirectly, would have a higher payoff. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you.

MR. LACKER. Mr. Chairman?

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. If I may respond to the good Governor Tarullo. The reason I keep mentioning our triple mandate is to note that we have read out the objective of moderate long-term interest rates precisely because the best contribution we can make to moderate long-term interest rates is to keep the inflation rate low. That's despite the fact that the opposite is true in the short run—that we can, in the short run, raise interest rates by raising short-term interest rates to reduce inflation. So exactly the same logical relationship between moderate long-term interest rates and inflation exists with respect to unemployment and inflation—namely, fighting inflation may not reduce unemployment in the short run, but in the long run, we all recognize it would be our best contribution. The Congress can put anything they want in a mandate. It's up to us to construe it. They can ask us to pursue maximizing the postseason performance of the Boston Red Sox, but we'd have to construe what that meant.

MR. TARULLO. That's true, Jeff, and I understand what you're saying, but you made a point in part based on how the world would receive a statement endorsed by all or most members of the Committee that associated a number with unemployment. I would say you can make the converse argument. If the Committee were to come out now with an inflation target that made no reference to unemployment, that would be construed in a very meaningful fashion as well; personally, I think it would be construed as the embodiment of what some people in the world advocate anyway, which is an inflation-only mandate. So you're quite right to say the first statement is going to attract an enormous amount of attention, but it goes both ways. Omitting unemployment will have just as powerful a message as including something on unemployment.

MR. LACKER. I could just agree that there is that division. I think the division about this issue reflects different visions for how monetary policy affects inflation and unemployment. And if you think one is more accurate, you like that language; if putting inflation-only accords better with your vision of how monetary policy affects the two, you prefer that formulation; if you prefer a more symmetric approach, it's because your vision likely reflects a different view of how monetary policy interacts with the economy. I'm just reading it the way I see it.

MR. FISHER. Mr. Chairman, can I intercede here to ask Governor Raskin's views?

CHAIRMAN BERNANKE. Why don't we do that first, and then we'll take the remaining comments. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. First, here is my view regarding the efficacy of balance sheet tools. A maturity extension program, for example, can reduce duration risk, putting downward pressure on term premiums and thereby longer-term interest rates. I don't doubt that this channel works. To me, the fundamental question is not so much whether longer-term interest rates are sensitive to changes in the balance sheet, but to what degree economic activity is sensitive to changes in longer-term interest rates. I assume that when we ascertain the efficacy of policy tools tied to the balance sheet, this latter question is of primary importance. The ultimate value of balance sheet tools, after all, is whether they produce the desired effect, and only the desired effect, on economic growth, employment, and price stability.

At this point, I'm concerned that there are frictions inhibiting the transmission between longer-term interest rates and economic growth, so that determining the appropriate sizing of balance sheet actions and effectively communicating our policy decisions publicly have enhanced urgency. As I've noted before, the effectiveness of this Committee's actions has been affected adversely by the difficulty and slow pace of household balance sheet repair and restructuring. If times were normal, we would expect a smooth transmission to occur such that decreases in interest rates would encourage households to purchase houses, cars, and other consumer goods. Because of household balance sheet problems, this channel is likely severely attenuated.

Second, as we all know, there's an excess supply of housing, the elimination of which is not proving very sensitive to interest rates. In past expansions, residential construction has been a vital component of recovery. This has not, obviously, been the case in this recovery, and I suspect that even if we could set 30-year rates at zero, we would still not see much new construction until the excess housing supply is eliminated. Third—and this is an additional factor clogging, so to speak, the transmission of low interest rates to greater economic growth—is the role played by the general lack of confidence and uncertainty plaguing households and businesses. Whether these are due to the threat posed by European sovereign debt and European banks or other sources, the lack of confidence and increase in perceived risk discourage households from undertaking substantial new spending and businesses from expanding payrolls, productive capacity, and inventory holdings, no matter how low interest rates are. Because of these factors, and there are others that we are all aware of, our monetary policy strategy has to be, it seems to me, less piecemeal and more coordinated. The challenge with balance sheet tools is that we run the risk of pushing on a string or not appropriately sizing our responses if we don't think through how we believe these clogs, or friction points, get addressed and how they constrain our need to respond going forward. I am fully aware that many, if not all, of these obstacles are not within the realm of monetary policy. But to my mind, that means it's our responsibility to clarify for others where these fixes need to happen in order to improve confidence, enhance the sensitivity of growth to interest rates, and make our policies potentially more effective.

All that said, I believe that policy tools tied to the Fed's balance sheet have been closely associated with declines in interest rates at the long end of the yield curve. And we have seen some discernible effects on things like credit conditions, confidence, relative asset prices, liquidity, and bank lending. Moreover, although I'm concerned that growth might not be as sensitive to interest rates as it has been historically, I don't think that the responsiveness is so small as to make the policy useless. Rather, I think there is still room to bring down the longer end of the yield curve in such a way as to produce some shifts in economic growth. Just last week, shortly after mortgage rates had tumbled to the lowest levels in at least four decades, an increase in mortgage applications suggested at least some response from homebuyers.

I'll be brief on the subject of reducing IOER, except to note that while I take seriously the concerns expressed by some on the Committee regarding IOER, I wonder about the public perception of continuing to pay what is perceived as a high rate on reserves when rates on Treasury bills are close to zero. I find the perception problem among the American public exacerbated by the fact that many foreign branches currently hold unusually large reserves. Ultimately, we should gauge the effectiveness of this tool by the amount of growth it could produce as compared with our other tools and whether this amount of growth is worth pursuing in light of the probability of unintended consequences. The costs of this option, it seems to me, mostly relate to money market functioning, and those costs are worse the greater the decrease in IOER. Mitigating some of these costs is an option to not cut to zero. So if we decide not to pursue this avenue with a modest decrease in the IOER, I remain concerned with the appearance problems regarding the Committee's hesitation to use this tool.

As to the communication tools, I think they hold potential. I'm positively inclined to the proposal of providing more-explicit, quantitative information about the Committee's longer-run objective for inflation and its projection of the level to which the unemployment rate will converge over time. This will provide more-explicit, quantitative information about the Committee's reaction function and will serve to ground it with the communication regarding π^* and u^*. My view is that we need to endeavor to improve public confidence—not, of course, by distorting our description of the true state of the economy, but by creating through our communications the credible expectation that we have a series of maneuvers that will move the economy closer to the goals set in our statutory mandate. To the extent that businesses, the markets, households, and the public understand where we are heading, and assuming we can assure them we are credible, the greater will be our ability to nudge forward growth in the context of price stability. I think these communication tools are a way forward in improving mean expectations, which contribute to reductions in uncertainty and gains in confidence. As long as we can put in place words and actions that enhance their credibility, that they are in essence contracts we are establishing, to signal to economic agents that we are anticipating using other tools, as appropriate, to manage to these levels, then I would be favorably disposed. This task strikes me as exceedingly difficult, and yet the extraordinary nature of our times demands we try.

CHAIRMAN BERNANKE. Thank you. Do you have a comment, President Kocherlakota?

MR. KOCHERLAKOTA. I was going to make a very quick comment. Governor Tarullo pointed to the idea that we have to be careful about whether we're thinking about thresholds or triggers or rules when we put these numbers into the statement. In light of that, I would caution that if we do end up putting numbers in—which, as I've indicated, I'm not excited about—I think we want to be careful to choose numbers that we're not likely to change. I think there's a tendency to say we want to stick close to 2 percent not to scare people, and so we put in something like 2¼ or 2½ or whatever. But you want to think down the path and consider that unemployment has remained very obdurate in the space of a great deal of stimulus. If we get to a point where our medium-term outlook for inflation is above 2½, closer to 3, and unemployment is still at 8½ or 9, what are we going to want to do? Admittedly, the way that it is crafted is all in terms of thresholds, so it looks as though we have the flexibility, but the interpretation will matter as well.

CHAIRMAN BERNANKE. It falls to me to summarize. This was a very useful discussion, and I'm certainly glad we had a two-day meeting because—[laughter]—it's already past 2:15, and I think we would be in big trouble now. Just a couple of comments. I'm not going to try to summarize everything that was said. We will certainly—"we" being mostly Bill English and his staff—be looking carefully at the transcript and trying to summarize from that.

On the balance sheet tools, I think most people preferred the maturity extension program to LSAPs at this juncture—with some notable exceptions, like President Bullard—on the grounds that we should perhaps reserve the big gun for later. However, people raised questions about the quantitative impact or the efficacy of that kind of tool, and observed that it's a one-shot tool—it can't be repeated. I think those are valid questions. I'll take the opportunity to editorialize. Some of the very small numbers on rate changes that were being cited are roughly consistent with a 25 to 50 basis point cut in the federal funds rate, which in normal times we think is a pretty significant action. I would also comment, again editorializing, that the channels of transmission are actually multifarious through many different ways in which interest rates affect asset prices and behavior. In the paper on the stock prices that President Fisher cited, the piece of research I did with Kenneth Kuttner, we found empirically that the biggest effect of interest rates on stock prices was through its effect on risk aversion and risk-taking, and we've been seeing big swings in risk-taking in asset markets. To the extent that we affect risk preferences and risk-taking, that would be one channel. But to come back to the thrust of the conversation, while not many people argued that these were positively harmful—except to the extent that if they're ineffective, they would harm our credibility—the question that was raised was, how effective would they be?

One positive suggestion was made, which I think I'd like to just reiterate. A number of people—I think starting with the Vice Chairman—made the suggestion about reinvesting redeemed MBS back into MBS. If we did that, that would keep the MBS stock in our portfolio constant. It would not increase it, nor would it increase the size of the portfolio. But it might have the advantages, at least superficially, of addressing the increase in the spread between MBS and Treasuries and reducing the pressure on longer-term Treasury markets. I think that's an intriguing idea, and what I'd like to do is ask Brian and Bill to talk about this and, in the morning, give us your comments, if you would, about any risks or concerns you might have about that. And then, depending on how things go in the conversation tomorrow, I may ask the Committee if they see that as an improvement over alternatives. So let me just give you that fair warning.

On IOER, we had a pretty mixed view. On the one hand, people were concerned about the perception that we are subsidizing banks, especially foreign banks, and noted that cutting IOER would have at least a marginal impact on the cost of funds. On the other hand, a number of concerns were expressed about market functioning, and Seth's memo provided four or five different areas of possible concern. I'm wondering, Seth, whether you have reached the limit of human knowledge on this subject or whether looking at this a little further over the intermeeting period, for example, or the next few weeks would be useful. Tell me if that's not the case. Can we get more insight into some of these potential costs and risks?

MR. CARPENTER. Well, we can definitely do more thinking about it. I guess some of the issues are almost inherently unknowable until we get there. As in the discussions that the

Desk had with money funds and in those that President Rosengren had with money funds, you'll get potentially different answers from talking to different people. Is it primarily the cost that you are asking about?

CHAIRMAN BERNANKE. The way a lot of people put it is that there are unknowable impacts on market functioning, including money market mutual funds, bank deposits and interest on deposits, federal funds market, and so on. I don't know whether more progress can be made on this question or not, but perhaps you could give it some thought.

MR. CARPENTER. Yes. Let us think about it and then get back to you.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. Just one idea that people have batted around, which I'm not sure is a good idea, but people have talked about an alternative of going slowly to a lower IOER to see what happens? Because I'm not sure it's a good idea, I'm not really supporting it. That's something that I don't think the staff has really looked at in detail. For example, an alternative is that you move it to 20 and you see what happens. And if nothing bad happens—[laughter]—you keep going.

CHAIRMAN BERNANKE. It's like, you drive the truck onto the bridge, and you—

VICE CHAIRMAN DUDLEY. You walk onto the ice pond.

CHAIRMAN BERNANKE. I see. [Laughter]

MR. CARPENTER. After today's meeting wraps up, we'll have some discussion and get back to you tomorrow morning with our thoughts.

CHAIRMAN BERNANKE. Give us some sense of what further progress you think can be made.

We had the deepest and most interesting discussion on the communications issues. Clearly, there's a lot of interest around the table in increasing our transparency, establishing more information about our objectives, and giving more information about our reaction function. And in particular, we have the problem, or opportunity if you wish, to clarify the guidance that we gave at the last meeting. I think this is something that should remain very firmly on the table in the sense of something we should continue to work at closely. A lot of people suggested making more use of the SEP, the Summary of Economic Projections, and that's something we should certainly talk about. For example, the view was expressed that the subtle distinctions between an inflation target and the long-run unemployment rate could not be adequately expressed in a statement and needed other kinds of communication like the SEP, press conferences, speeches, et cetera. And I think that's worth discussing. The possibility was also raised of asking additional questions or getting forecasts of interest rates in the SEP. I do note that—and I think this was raised by at least a couple of people—the SEP is, in the end, the aggregation of our 17 or 19 opinions. It doesn't have the imprimatur of a Committee decision, and that's a bit of a problem that we'll have to take into account. But in terms of providing information to the public, I think it is a useful direction.

Governor Tarullo noted that our discussions today didn't really address the worst-case contingencies, which a number of people have brought up. And I would say that's by design because today we were talking about tools in the context of flexible inflation targeting. I think that in a flexible inflation-targeting framework, we would try to respond to prices primarily through lender-of-last-resort activities and liquidity provision. In terms of monetary policy stimulation, there may ultimately be some limits to how much stimulus we can provide if we're going to maintain inflation at the mandate-consistent level. So that's an issue to be talked about further. In those "break glass" situations, I think we would want to at least discuss seriously some of the alternative frameworks that have been discussed and proposed. Again, as I mentioned, we'll put that on the table for discussion at the next meeting. We certainly will talk about the kinds of situations in which we might want to take more dramatic action.

Thank you for this very useful conversation. Coffee is ready. Why don't we take 20 minutes for coffee, and we'll come back for the economic go-round.

[Coffee break]

CHAIRMAN BERNANKE. We're finally to item 3 on the agenda.

MR. PLOSSER. Moving right along.

CHAIRMAN BERNANKE. The "Economic and Financial Situation"—Larry Slifman, Steve Kamin.

> MR. SLIFMAN.[3] Thank you, Mr. Chairman. I will be using this single chart. I tricked Steve, and he doesn't have any. [Laughter] In putting together the projection this round, we faced two major issues. First, although the incoming spending data over the intermeeting period were largely in line with our expectations, much of the nonspending data that influence our projection came in well short of our expectations. So the question was, how aggressively should we respond to those data in revising the projection? Second, as we noted in the Tealbook, some of our statistical models based on high-frequency data suggest that the economy may be in the process of slipping into recession. Thus, with a weaker baseline forecast, our statistical filtering models pointing to a sizable probability of recession, and downside risks looming even larger than before, we faced the question, should we build a recession into the baseline forecast? In the remainder of my remarks, I'll talk about how we reacted to the news we received over the intermeeting period and then address the issue of why we think the most likely outcome is for a continued gradual recovery of economic activity.
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> The upper-left panel of the exhibit shows our GDP projection. The disappointing performance recently of many labor market indicators, the dramatic worsening of consumer and business sentiment, and the sharp drop in stock prices led us to revise down our forecast of real GDP growth in the second half of 2011 to an annual rate of 2¼ percent, about ½ percentage point less than in our previous projection. We also lowered our projection for economic growth in the medium term, largely in response to changes in financial conditions—in particular, the lower stock market and the

[3] The materials used by Mr. Slifman are appended to this transcript (appendix 3).

higher dollar. We now expect real GDP to rise about 2½ percent next year, nearly ½ percentage point less than our previous forecast. Economic activity then accelerates gradually during 2013 and beyond. As shown in the upper-right panel, even as the economy continues to recover over the projection period, the gains are not large enough to take up much resource slack, and the unemployment rate is projected to still be above 8 percent at the end of 2013.

The outlook for inflation—the middle-left panel—is similar to that in the August Tealbook. As anticipated, commodity prices have come off their recent peaks, and import price inflation is slowing. Accordingly, with long-run inflation expectations well anchored, and considerable slack remaining in labor and product markets, we expect overall PCE prices to rise 1¼ percent in each of the next two years after increasing about 2½ percent in 2011.

As a result of the staff's weaker outlook for real GDP growth and labor market conditions, and with little change to our inflation forecast, we now assume that the FOMC will hold the target federal funds rate—the panel to the right—in the current range of 0 to ¼ percent until the third quarter of 2014, four quarters later than in the August Tealbook.

In the large, the contour of our projection for economic activity is shaped by three important elements. The first element is the conditioning assumptions underlying our forecast. As I've already noted, we continue to assume that monetary policy will remain highly accommodative. Moreover, as Steve will discuss shortly, we assume in the baseline that Europe will work through its current problems without suffering a financial meltdown. With no additional significant shocks hitting the economy and the effects of earlier adverse shocks waning, we assume that household and business sentiment will improve from their extremely low levels. Of course, as we illustrated in one of the alternative scenarios, the destructive potential of the European situation looms rather large in our thinking.

The second major element helping to shape the contour of the forecast is the current and prospective lessening of some of the headwinds that have been restraining the pace of recovery. To be sure, construction is moribund, and fiscal policy remains tight at all levels of government. Nonetheless, households in the aggregate are in better financial shape than they were a couple of years ago, as is the corporate sector; access to credit has improved; and the rate of decline in house prices has been slowing. In addition, with oil prices down appreciably from the levels seen earlier this year, the drag on economic activity from the previous run-up has begun to ebb.

The third element in our story is the role played by the economy's usual self-correcting mechanisms. Although still attenuated, those mechanisms should gain greater traction over the next two years as the restraint from the headwinds continues to diminish and monetary policy remains accommodative.

In the household sector, as the negative effects of earlier declines in wealth fade, spending should be supported by the natural tendency over time for consumption to move back into closer alignment with the level of permanent income that is consistent with potential output. In addition, pent-up demand for consumer durables should shore up spending over the next couple of years. This is perhaps most evident for autos and light trucks, where sales, even after taking account of supply chain disruptions to dealers' inventories, have for some time been running far below our estimate of trend demand, which is based on demographics and scrappage rates.

In the business sector, the growth rate of the E&S capital stock currently is well below its historical average, as the level of investment has been only a little higher than what is needed to replace depreciating equipment. Of course, estimates of the "target" capital stock have a wide band of uncertainty. Still, if concerns about prospects for U.S. and global economic performance lessen and business sentiment improves over time, as we assume, firms should begin to undertake more substantial increases in their productive capacity and, with that, add more workers.

As I noted earlier, although we continue to expect the pace of economic growth to gradually firm over the next two years, some of the statistical models that we monitor suggest that the economy may be in the process of slipping into recession. The lower-left panel summarizes the forecasts generated by a suite of 45 factor models that we maintain. These models use a data set with 124 series including measures of economic activity, household and business surveys, labor market indicators, and data from financial markets. As you can see, currently the mean forecast from these models is for real GDP growth to fall in the fourth quarter and be little changed in the first quarter.

The lower-right panel presents a variation on a theme introduced by David Wilcox at the August FOMC meeting. David showed the estimated probability that the economy currently is in a recession state based on a simple three-state Markov switching model. The panel shown here broadens the scope to include the probability that the economy currently is in either a recession or a so-called stall state, which in the model's view inevitably leads to a recession. As you can see, the combined probability currently is about 1 in 3.

One interpretation of the results from these statistical exercises is that the distribution of outcomes for economic performance over the next few quarters has two peaks, with one centered on a resumption of recovery and the other centered on a period of stagnation ending in a recession. The recovery peak has a higher probability than the recession peak. Still, as discussed in the "Alternative Scenarios" section of the Tealbook, Book A, if the economy were to slip into a recession, the effects could be magnified, compared with the typical historical experience, by the impaired capacity of both the private sector and public policymakers to buffer any further shocks.

Nevertheless, the bottom-line message of our forecast is that although the risks of a recession have become more palpable over the past couple of months, we still do not see that as the most likely outcome. Steve will now continue our presentation.

MR. KAMIN. It is a cliché of FOMC meetings that the outlook is unusually uncertain and the risks especially large. But I have conducted an admittedly unscientific poll of my colleagues, and they have rarely seen the prospects for the global economy hang so heavily on how political and financial developments over the next several months unfold. With the crisis in Europe deepening and financial markets extremely jittery, any number of events, such as a disorderly Greek default, could trigger a chain reaction of events that would be very difficult to control.

Greece faces two critical hurdles in the near future. First, it will likely run out of cash by mid-October unless it receives a scheduled disbursement from the IMF and European Union under the loan program agreed to in May of last year. But Greece has fallen well short of its fiscal targets, and the negotiations to revise the program and unlock the disbursement have been very difficult. Second, to help Greece meet its fiscal obligations over the next several years, European leaders agreed at their July 21 summit to provide a second rescue package to Greece, but this package requires unanimous ratification by euro-area governments, and political resistance to it is running high. Moreover, the new package is predicated on private creditors participating in an exchange to roll over their claims, but interest in this exchange appears to be falling short of the authorities' goals.

For some time now, we have judged that Greece's debt was unsustainable and that some form of default or restructuring of this debt was likely. However, we anticipated that by the time this transpired, spillovers to the rest of Europe and beyond would be limited, either because other European countries would have succeeded in convincing investors they were more creditworthy than Greece, or because authorities had built financial firewalls sufficiently high to protect Spain, Italy, and other countries from contagion. Certainly, Europe has failed on the first count—spreads on Spanish and Italian bonds rose sharply during the summer and would be higher still had not the ECB started purchasing these bonds last month. On the second count, the construction of the firewalls is behind schedule. The July 21 agreement would give Europe's financial rescue fund, the EFSF, greater flexibility to buy the sovereign bonds of vulnerable countries, lend to countries that do not have an IMF program, and help recapitalize banks. However, it did not include the enlargement of the EFSF from its current notional size of €440 billion to the €1 trillion or more needed to backstop Italy and Spain.

For the moment, euro-area leaders appear to be focusing on trying to ratify the changes to the EFSF agreed to at the July summit rather than addressing the critical task of expanding the EFSF or providing some other means of support to vulnerable European governments and financial institutions. Thus, at present, the only institution with the resources to head off a systemic run on the debt of European sovereigns is the ECB. However, the ECB has been understandably reluctant to get ahead of the political process by expanding its current program of sovereign bond purchases into a more comprehensive backstop; indeed, underscoring deep divisions within the ECB itself, Executive Board member Jürgen Stark resigned two weeks ago, reportedly in protest over the ECB's recent policies.

At this point, you may be wondering how I will justify our Tealbook forecast that Europe will manage to avoid a major financial meltdown. Our view is that, while European leaders have been behind the curve at every juncture of this crisis, they have also reluctantly come to do what was needed to avert catastrophe at every one of those junctures. Admittedly, this is a close call, but we anticipate that, as market pressures build further, these authorities eventually will find themselves compelled to provide the scale of support to their sovereigns, as well as their banks, needed to prevent a systemic financial breakdown. That said, we recognize that accidents happen, and the risks here are very worrisome.

Although our modal outlook is that a financial meltdown will be avoided, the combination of continued financial stresses and stringent fiscal consolidation should restrain the euro-area economy for some time to come. Real GDP growth fell to only ½ percent at an annual rate in the second quarter, and generally weak readings on manufacturing, business sentiment, and consumer confidence over the summer point to only a little improvement in the third quarter. Going forward, we see euro-area growth continuing to languish near 1 percent over the next year or so before an eventual easing of financial stresses and pickup in the global economy provide some uplift.

In the advanced foreign economies as a whole, real GDP had stalled in the second quarter in the wake of the supply disruptions from the Japanese earthquake and stoppages to Canadian oil production. With these shocks behind us—notably, Japanese output has recovered rapidly—advanced-economy economic growth likely bounced back to 2¼ percent in this quarter. However, in light of widespread declines in stock prices, the problems in Europe, and the markdown to the U.S. forecast, growth in the advanced foreign economies is expected to dip down over the next few quarters and average only 2 percent through 2013. This lackluster pace is barely sufficient to erode a still-substantial amount of resource slack.

In the emerging market economies (EMEs), GDP growth had also slowed in the second quarter and likely bounced up a bit in the third, averaging about 4½ percent all told. Going forward, we are projecting EME growth to remain at around this rate—which is a little softer than its historical trend—for the next year before it picks up along with the acceleration of the U.S. and other advanced economies. Data on EME manufacturing and exports have been a little soft, but indicators of domestic demand have held up better. A key risk is that the EMEs may not be able to continue relying on domestic spending for their growth in the face of persistent weakness in the advanced economies.

In response to continued concerns about the outlook for the global economy, oil and other commodity prices have remained below their peaks reached earlier this year. In consequence, inflation rates in the advanced foreign economies have generally moved down sharply in recent months, and continued ample resource slack should keep price pressures under control for some time. Given the weakness of inflation pressures and the gloomier outlook for growth, most central banks in these economies are now expected to withdraw monetary accommodation more gradually, and we are anticipating that no major advanced-economy central bank will raise rates before 2013. Notably, Japan and Switzerland have been struggling to contain the effective tightening of financial conditions caused by their soaring currencies; Japan undertook a record intervention of $57 billion to weaken the yen in early August, while Switzerland arguably went even further, setting a ceiling on the Swiss franc's value in terms of euros.

In the EMEs, by contrast, inflation continues to run fairly high and output gaps have largely closed. However, EME inflation is likely to start moving back down as food prices soften, and prospects are that monetary tightening will slow in this region as well. Several Asian central banks have already refrained from tightening in recent months, citing the heightened risk from the global slowdown, and Brazil used the same rationale to explain a 50 basis point cut in the policy rate in late August.

Throughout most of the summer, concerns about Europe and global growth principally affected the United States through their effects on domestic stock and credit markets. During the intermeeting period, however, these concerns pushed the dollar up sharply, and the projected path of the broad real dollar is now some 3 percent higher than in the August Tealbook. Largely in response, we have revised down U.S. export growth over the forecast period to about 7½ percent, on average, and the average contribution of net exports to U.S. GDP growth, at about ¼ percentage point, is also a little weaker. Even so, trade should continue to represent a relative bright spot for the U.S. economy, thanks to still-solid growth in the EMEs, the fact that the broad real dollar remains low by historical standards, and the roughly 3 percent annual depreciation—chiefly against the EMEs—we are projecting for the next two years. That concludes my remarks. We'll be happy to take your questions.

CHAIRMAN BERNANKE. Thank you. Questions? Vice Chairman.

VICE CHAIRMAN DUDLEY. Larry, your view on the likelihood of recession was independent of events in Europe—at least that's how I took it. So let's say, Steve, that you're wrong and I'm wrong; Europe does not muddle through, and we get the worst case. How does that, then, affect the view of the U.S.?

MR. SLIFMAN. Well, we explored that in one of the alternative simulations in the Tealbook.

VICE CHAIRMAN DUDLEY. It didn't seem negative enough to me when I read it. [Laughter]

MR. SLIFMAN. It could be even more negative. The one thing I would point out is that the factor models that I showed on the lower left have sentiment indicators as one of the many variables in those models. So to the extent that that sentiment currently is being held down, among other things, by the situation in Europe, then that would be captured by the factor models. But I think the more general point is that we did try to think about what would happen if things got a lot worse in Europe, and as we showed in the Tealbook, that would have adverse consequences. It would throw us into a recession.

VICE CHAIRMAN DUDLEY. I think what's hard to capture is that if something bad happens in Europe, it's not just a GDP feedback loop—it's a market feedback loop. And I think back in 2008, we underestimated how powerful that can be.

MR. SLIFMAN. Steve can talk more to it, but the alternative simulation incorporates some of that.

MR. KAMIN. Yes. Our simulation involves, for Europe, a very substantial increase, for example, in corporate credit spreads and a decline in consumer confidence there that reduces output in Europe some 8 percent below baseline, which is obviously very substantial. For the United States, we have also built in an increase in credit spreads, although smaller amounts, as well as some confidence effects, leading to a decline just in the level of GDP below baseline in the neighborhood of 4 or 5 percent. Now that, I will say, is probably the biggest negative effect we have ever built into an internationally based simulation in the Tealbook. But we can go further. [Laughter]

CHAIRMAN BERNANKE. Thank you. Other questions? President Fisher.

MR. FISHER. Real quickly, Steve. Also on the negative potential side—Turkey, Brazil, and China—our staff work indicates that there's substantial overheating, certainly in the first two, and at risk in the third. Banking systems are highly fragile. Have you factored that into your discouraging scenarios?

MR. KAMIN. Well, we have certainly spent a lot of time thinking about that issue, particularly for China and Brazil, which are larger trading partners with us and figure more prominently in my thinking, though we do follow Turkey as well.

In China, for some time, there have been a number of property-market-related risks, both in terms of prices having risen very high and in terms of there being very substantial lending, which puts at risk not only some borrowers, but also lenders. In particular, a lot of state and local governments in China have been using off-balance sheet vehicles to try to channel funds to developers and others. It's sometimes like a substitute for fiscal policy for them. So that represents a concern. However, it is true that over the past half-year or so, property prices in China, based on our perhaps imperfect measurements, seem to have tailed off a bit and maybe even declined. And of course, the Chinese government and the PBOC are taking a lot of steps to try to rein in the lending. It's certainly something that's very much on our radar screens, and we're very aware it. But we don't see the overheating problem getting worse, at least as far as the property market in China is concerned.

We've also been following Brazil carefully for very much the same reason. There have been very many anecdotal reports of a bubbling property market in the country. Unfortunately, we don't have as good data on housing prices there, but there's no reason to disbelieve the anecdotes. And part of the problem is that Brazil ramped up credit growth a great deal during the financial crisis and hasn't really reversed that now. So we're watching that carefully. Thus far, we haven't seen evidence of a bust of that sort, and we have seen the GDP growth and the economy slowing. We're looking forward to that tailing off again without a meltdown. But it's something we're following.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Yes. Just to follow up on this, I think the situation in Europe is quite concerning, given the pace at which they seem to be resolving their problems. And we can talk about a meltdown or implosion of Europe, but it seems to me that one of the things that might happen is an acceleration in the massive flight to quality that we have been seeing, with the consequences being, rather than a flight out of quality of the U.S. banks, a huge inflow of cash. How would we react to that, or what would the consequences of that be, short of rapid depreciation of the euro relative to the dollar and a huge inflow of cash from European institutions into the United States? How would that play out, and what would the consequences be for us, if any?

MR. KAMIN. Well, I will say a couple of words, and then maybe my domestic colleagues can add on. In some respects, the flight to safety could be a double-edged sword in the sense that on the one hand, most negatively for the United States, it would probably appreciate the dollar very substantially, and we've already seen a little bit of that happening. And that would be adverse for our net exports and represent a contractionary force through that channel. As well, the flight to quality would probably raise credit spreads for riskier borrowers in the States, and that would be adverse. On the other hand, of course, Treasury yields would fall more, but it's not clear how much more they would have to fall, so that plus would be mitigated. And then finally, there's an issue that we're already running into with the movement of money market funds into banks, which is that the banks themselves are hitting their capital concerns. So I'll stop there.

MR. REIFSCHNEIDER. Right. In the scenario of a very severe European recession that we had in the Tealbook, all those effects that Steve just laid out were there. You were seeing Treasury yields fall appreciably, and that helped buffer things. However, the dollar was appreciating; that made things worse. And we assumed that risk spreads on private securities were going up, which also made things worse. Going back to Vice Chairman Dudley's question, the other recession scenario we had in the Tealbook featured some of the special things that might also occur in the event that Europe crashed. The other recession scenario assumed that the economy is extremely vulnerable at the moment to any sort of kick from anywhere. It could come from abroad; it could be domestic: But with any sort of kick, things could play out much worse than the models might usually suggest, because of the strains that households are under, because of the strains that the banking system is under, because people would be looking at monetary policy and saying, "Well, what's the FOMC going to do to buffer this? Or, looking at fiscal policy—what's the federal government going to do to buffer this?" This isn't to say that all of those things will happen, but it is our view that if you did have a big kick to the economy—say, from Europe—there's a very strong risk that the negative effects, even aside from the channels that Steve outlined, would really ramp up because the economy is more vulnerable.

CHAIRMAN BERNANKE. Other questions? [No response] Okay. Seeing no questions, we're ready for our economic go-round, and I will start with President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I am heartened by how many members are following the Red Sox. [Laughter]

MR. TARULLO. If not by the Red Sox themselves. [Laughter]

MR. ROSENGREN. But I must say that I am disheartened that the staff probability of a recession increasingly exceeds the probability of the Red Sox winning the pennant. [Laughter]

After the last meeting I was struck by how responsive the longer-term Treasury rates were to our announcement of maintaining very low rates through the middle of 2013. It highlighted the important role that forward guidance can play as we navigate this very difficult period. Unfortunately, the continuing debate in Europe on a way forward and a string of weak economic reports in the United States caused the 10-year Treasury to fall further. For much of the past month, the 10-year Treasury has been at 2 percent or a little bit less. Similarly, the 10-year rate in Germany has been below 2 percent, and the Japanese 10-year rate has been at 1 percent. This does not seem like an environment in which market participants are focused on inflation in the United States or other developed countries. My interpretation of this is that most market participants' worry index is ordered as follows: The highest concern is about another possible financial crisis, most likely triggered by European problems; the next-highest concern is for the very weak economic and labor market data we continue to receive; and a rather distant third is inflation. My own ordering is identical.

My biggest concern is that we will have at least a serious threat of a financial crisis this fall. I have talked previously about money market funds. However, it's not only the threat of investor runs that causes money market funds to have a significant impact on our short-term credit markets; even without a rapid withdrawal of investors, the money market funds have still dramatically reallocated funds away from some European banks. This move away from risk is a perfectly rational response for a lower-credit-risk investment. However, the consequence of money market funds' withdrawal from European banks has highlighted another key weakness in short-term credit markets—the reliance of European bank branches on short-term dollar funding for long-term dollar assets. As money market funds and other investors have shrunk as a source of short-term dollar funding, the maturity of funding has shortened significantly, and in some cases, peripheral banks have been entirely shut out of short-term wholesale funding. The wholesale funding of dollar assets with increasingly short-term funds is all too reminiscent of the SIV problem experienced in 2007.

We need to make structural changes in our short-term credit markets so that U.S. dollar markets are no longer hostage to European credit risk. Structural changes in foreign branch wholesale funding could avoid some of these problems. My preference in the longer run would be to require full subsidiarization of all U.S. operations of foreign banks. But in the absence of that, we should be considering more-restrictive supervisory and regulatory oversight of branches to prevent their funding model from being destabilizing to the U.S. economy. However, we still have significant weakness among some of our largest institutions. Bank of America and Morgan Stanley both have credit default swap rates above 300. Should significant credit rating downgrades occur in the midst of a European crisis, I am concerned about how quickly their liquidity will disappear.

We've been taking unprecedented actions with monetary policy. I would strongly advocate that we consider whether the same sense of urgency is occurring around financial stability and bank supervision. The recent announcement on providing dollar funding was quite necessary, but we need to move more quickly to make sure these types of announcements are not needed. My worries about financial stability are ultimately grounded in my concern that financial disruptions will further weaken an already fragile real economy, moving us further from our dual-mandate goals.

Between the two goals, my biggest concern is the unemployment rate. The economy has been growing below potential, and I fear that even without a European crisis, the threat of a crisis and the underlying challenges in housing, state and local governments, and the labor market have sapped the confidence of consumers and businesses. In discussions with businesses, this concern is palpable. While Boston is doing better than many other parts of the country, businesses that have been hiring report being inundated by qualified applicants, from restaurants and grocery stores to biotech firms. They report that the only labor market problem is that if they identify a key potential hire, they cannot induce him or her to move, because the worker is concerned about losing the job if the new employer's prospects dim. This is quite consistent with the very low quit rate we continue to observe.

Turning to the inflation outlook, the Tealbook foresees an inflation rate below 2 percent in the medium term. We should not be content with an inflation rate expected to underrun 2 percent when the unemployment rate is so far from full employment. The pricing of corporate and Treasury securities seems quite consistent with very low inflation persisting. Finally, if one were to use DSGE models, which I do not find as compelling as some, inflation tends to be driven by unit labor costs, which continue to surprise on the downside. With labor market costs staying so low, inflation can become a problem only if firms are rapidly increasing their markup, an event quite unlikely given the poor growth rates we have been experiencing.

We face a very volatile fall, with confidence shaken and growth anemic. We should focus our policy attention on restoring both elements of the mandate in the medium term, a topic to be discussed tomorrow. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. It's been some time since I immediately followed in the go-round my friend and colleague from Boston. I'm tempted to lead off by quoting Monty Python: "And now for something completely different." [Laughter]

MR. KOCHERLAKOTA. But you won't. [Laughter]

MR. LACKER. Since our last meeting, the flow of data and reports from our Fifth District contacts have confirmed the view that the economy is experiencing an extended period of slow growth, one that's more persistent than can be accounted for by the temporary factors that many of us were emphasizing just a few months back. An array of factors appears to be impeding hiring and investment. We continue to hear about the difficulty of attracting skilled workers in certain regions of our District. We also hear continuing comments about the chilling effects of U.S. regulatory policy, as well as caustic complaints about the quality of U.S. political leadership. Some contacts have been able to cite compelling examples of regulatory changes that are inhibiting economic activity. Others, however, just see uncertainty about U.S. financial and fiscal and regulatory policy as having a general broad damping effect on confidence in future economic growth and on demand for their goods and services. And so I think it's difficult to disentangle how much tangible effect these things are having. More broadly, the uncertain status of European rescue schemes and the resulting financial strains seem to be depressing spirits and weighing down U.S. equity markets and sentiment measures.

Whatever the mix of causes, the slowdown is clearly apparent in the information we've received from our District contacts. Our survey indicators have retreated broadly since early in the year, with both our manufacturing and service-sector indexes now dipping into negative territory, as have many other Reserve Bank surveys. I do not see any evidence yet, though, of an outright contraction in activity, although it's certainly a little more possible than it was several months ago. Like the Tealbook and many other forecasters, I think the most likely outcome is for economic growth to continue at a slow pace with some modest acceleration next year. Our surveys haven't gone deeply negative, as they do when the economy contracts. And while our anecdotal reports clearly reflect a general despondence, they still include a few bright spots. Tourism and hospitality have been strong in a number of regions, for example. Several new manufacturing operations have been announced in various places.

I think the inflation outlook is going to play, or ought to play, a critical role in our policy deliberations at this meeting. When we initiated our second LSAP program a year ago, inflation and inflation expectations were low and threatening to fall further. The situation is quite different this time around. Headline inflation has run well ahead of our implicit target since the beginning of the year. Core inflation has increased since last year, is now running around 2¼ percent, and, as yet, hasn't shown any signs of abating. The current Tealbook projects an immediate decline in inflation, but I don't find the case very convincing. Every Tealbook this year has forecast a decline in inflation during 2011, and inflation has surprised on the high side every single time. The Tealbook's disinflation forecast pays homage to that old chestnut "the considerable amount of labor market slack." It's really hard for me to take the simple Phillips curve logic very seriously anymore, especially in light of the behavior of inflation over the past year, when inflation surprised on the high side despite quite large slack the way it's conventionally measured. As I pointed out in March, we expected considerable slack to bring inflation down in late 2003 and early 2004 following what we thought was a temporary oil price surge. Instead, core inflation ratcheted up to about 2¼ percent and stayed there for several years. I think it's quite plausible to think that that's what's happening again—a relatively persistent upward movement in core inflation despite a considerable amount of labor market slack.

President Bullard's memo, by the way, contains an excellent discussion of something that's relevant here. In our standard models, the slack that is relevant for inflation dynamics and policy is the difference between current employment and the efficient level of employment—that is, the level that would prevail if all prices were flexible. This is not the same as the gap between the current unemployment rate and what's called NAIRU, which, by construction, is an estimate of the level of employment that would prevail in the absence of shocks and if all prices were flexible. As President Bullard points out, the efficient level of employment fluctuates with shocks that hit the economy, and this makes intuitive sense—that current inflation dynamics and current policy shouldn't ignore the history of shocks we've received over time that have gotten us to where we are now. Thus, the amount of labor market slack in the United States could be rather low right now, and that accords with the idea that many people have advanced, and the intuition that many people sense, that there's little monetary policy can do to increase real activity right now.

The case for declining inflation also relies on the fading of transitory factors, such as the surge in energy and commodity prices. But there are transitory factors on the other side as well that are temporarily depressing inflation. For example, the lodging component, admittedly not a biggie of the CPI, fell at an annual rate of 19 percent last month; it seems poised to rebound going forward. More notably, owners' equivalent rent has been accelerating and appears likely to contribute to higher inflation, at least compared with earlier in the year. The point here is that there will always be transitory relative price changes, and you can always find some that are about to subside and some that are about to rise.

Popular accounts of the increase in inflation since 2010 also emphasize the run-up in energy and commodity prices, which is attributed to the pressure of rising global demand in the presence of inelastic supply. I find it hard to rule out, however, the possibility—I'm not sure how strongly to take this—that our second LSAP played some role in this, partly through the decline in the dollar as the program was beginning, but partly as commodity prices responded more quickly and sharply to the monetary stimulus than the sticky goods and services prices. This is a common feature of standard models that allow for goods and services with different amounts of stickiness built into them. It's the flexible price goods whose prices respond to monetary stimulus more rapidly and more strongly. It's also easy to imagine portfolio rebalancing, shifting funds through a chain that drives funds into commodity markets. It's certainly difficult to quantify such a decomposition at this point, but as I said, it's difficult, I think, to rule out such effects.

What about the real side? Looking back over the past year, my sense is that our last LSAP program had only a small transitory effect on real activity. For a couple of months around the turn of the year, we saw some better-than-expected data on economic growth and spending. But on net, the growth outlook for 2011 and beyond has been marked down substantially since last fall. So looking back over the past year, my reading of our last LSAP program is that it had only a negligible and fleeting effect on real activity but instead showed up mainly in the form of higher inflation. That assessment, along with the significant difference in the inflation outlook from a year ago, is going to strongly shape my thinking about policy alternatives and whether we want more monetary stimulus at this point. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, President Lacker. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Business conditions in the Sixth District remain in positive territory, but anxiety levels have risen. Most firms report that they expect their businesses to post gains in the second half that are marginally better than the sluggish growth in the first half. Forward expectations have deteriorated compared with the beginning of the year, but most firms are not yet preparing for an outright decline in business activity. There are still pockets of relatively strong activity. Tourism is doing well. Auto production has rebounded nicely. Freight traffic has moderated a little but is still strong. Port contacts report that export activity remains strong, and they have seen no significant drop-off in recent months.

During the intermeeting period, we mobilized our regional network to get a grassroots perspective on the labor market. The key takeaway from this effort is that the labor market situation is complicated. Firms are resistant to add to their payrolls. As reasons, most cite a combination of soft demand, uncertainty about the course of the economy, and uncertainty over regulatory and fiscal policy. Where jobs are available, structural or structural-like impediments seem to be at work. A number of contacts describe the hard and soft skill sets of applicants as substandard. Consequently, hires are made only if and when the right candidate presents himself or herself. Some workers are finding it difficult to reset expectations about wages and personal lifestyle. Some potential hires have to be wooed away from unemployment, which is preferred to some offers of work because of extended unemployment assistance. Despite earlier evidence casting doubt, firms of various stripes continue to say that "house lock" is inhibiting relocation, which has complicated business expansion plans and contributed to persistent unemployment to some extent. Taken together, labor markets appear to be restrained by a host of both supply-side and demand-side negatives.

During the intermeeting period, my staff also conducted a formal survey of business inflationary conditions and sentiment. We noted a very modest rise in expected inflation over the coming year compared with readings a few months ago. While firms say their pricing power remains limited, they now do not see much room to offset cost pressures by productivity-improvement measures. The firms in our survey see rising materials costs as having the greatest potential for upward cost pressure in spite of some recent stabilization. At the same time, the survey data indicate that potential for labor cost pressure has intensified a little in recent months. Overall, shifts in business inflationary sentiment since midyear have been modest and do not yet suggest an unanchoring of business cost expectations.

Turning to the national outlook, I have not adjusted my economic growth outlook from the August meeting. My baseline for growth is essentially the same as the Tealbook baseline, which is similar to the consensus of private forecasters. However, I have been surprised by and disappointed with recent inflation data and judge the inflation trend to be near the upper end of the desired long-term range. Given the unexpected persistence of elevated headline and core inflation readings, I'm incorporating into my outlook less assurance that inflationary pressures will subside as predicted in the Tealbook base case.

As regards the assessment of risks, I see the risk to my economic growth projection as elevated and weighted to the downside—no change in that assessment from the August meeting. I would add that the risk of financial system instability did intensify in recent weeks because of the European situation. In addition, the fact that I and others have repeatedly underforecasted actual inflation, combined with what I'm hearing about the declining ability of firms to offset further cost pressures, leads me to shift inflation risk to the upside. A final comment on the balance of risks. The recent behavior of prices has deviated from earlier projections and, in my view, made the Tealbook alternative scenario "Greater Supply-Side Damage" more compelling. It seems to me to be an entirely plausible characterization of the economic environment we now face.

I want to take one more moment to try to summarize my sense of the economic context in which we will consider a range of policy actions today and tomorrow. The economy is growing modestly and, I expect, will grow slightly faster in the near term and medium term. Revisions of earlier numbers have evoked a downshifting of growth expectations, but not a forecast of outright deterioration of the economy. I am wrestling with the recognition that our forecasts have both overestimated growth and underestimated inflation, and this introduces a degree of ambiguity that is influencing my views about policy; I'll address that in the policy go-round tomorrow. Let me conclude with one parenthetical comment. The atmosphere in which the market and public are anticipating policy and in which we are making policy has deteriorated in the sense that the recognition of slow growth and persistent unemployment has spread and intensified. Since last July, we've seen the GDP revisions, the raising of the debt ceiling—a spectacle that dominated attention—the downgrade, a volatile equity market, a worsening situation in Europe, and a bad jobs report following earlier weak reports. In my opinion, all of this has contributed to a public psychology of impending crisis. While this may color how policy decisions will be perceived, I don't believe we should give it undue emphasis in crafting this meeting's decision. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Economic conditions in both the Third District and the nation remain weaker than they were earlier in the year. Not much, though, has really changed in terms of the outlook since our last meeting. The question is why, and how long will the slowdown last? We had thought earlier this year that the weakness would largely be temporary, but it is certainly turning out to be somewhat more persistent than we thought. Perhaps more relevant is that we have been hit by more shocks since the last meeting, including

Hurricanes Irene and Lee and the increased likelihood of disorderly resolution to the sovereign debt crisis in Europe. Many forecasters have revised down their forecasts for 2011, and some also for 2012, although by a lesser amount. However, there remain a few forecasters who are at this point predicting out and out recession.

In the Third District, manufacturing activity continued to contract in September after a sharper drop in August. The August drop was undoubtedly affected by the events in Europe and the debacle over the debt ceiling debate in the United States. The September numbers were clearly influenced by the hurricanes and the subsequent severe flooding in Pennsylvania and New Jersey. Thus, I find it very difficult at this point to get a very firm reading on manufacturing performance in the District, and I remain somewhat uncertain. However, both indexes for prices paid and for prices received bounced back higher than they had been after the bad August numbers. Labor markets continue to struggle, with little progress. But there appears to be a dichotomy in the labor market. My contacts report that the job postings for lower-skilled workers are finding a plethora of applicants who are either highly qualified or overqualified, or, on the other hand, not qualified at all, while firms looking to hire a more specialized skill are having great difficulty finding qualified workers. They have many job openings, and when they do hire, they tend to hire individuals from other firms rather than out of the unemployed.

Business leaders continually report to me, much like President Lacker, uncertainty, uncertainty, uncertainty—whether it be Europe, whether it be U.S. regulatory reform, whether it be tax policy, and the list goes on and on and on. They rarely complain to me about a lack of liquidity or that interest rates are too high for them to conduct their businesses as time goes on. The real estate sector shows few signs of life, as many people note. Sentiment remains subdued in the District. However, manufacturers do expect a pickup in activity over the next six months, and that was a rebound from what we observed in the August survey. In other sectors, activity is expected to show very slight growth in the near term, and contacts report that they are concerned about the downward trend in consumer confidence. While their outlook is still positive, it is dripping with uncertainty. National conditions are similar to those in the District. While we are seeing weak activity, 12-month inflation rates continue to accelerate. It's a quite different situation than we faced in the fall of 2010 when we resumed asset purchases. At that time, real activity was weakening and inflation was falling.

To my mind, the big risk facing the U.S. economy is the potential for a large financial market shock stemming from Europe. The issue we should be focusing on is what we should do in the event that that should occur, and I agree with President Rosengren about the importance of us doing contingency planning and thinking about the consequences of that, should that crisis arise. This seems to be a much more salient question than how we might lower longer-term interest rates 10 or 15 or 20 basis points from their already historically low levels.

I don't think it makes much sense for us to try to fine-tune the real side of the economic recovery at this point. A large shock hit the economy, and with the benchmark revisions, we know it was even larger than we thought. The Fed responded in our role as lender of last resort to try to stem the financial instability and in our monetary policy role by reducing interest rates, easing credit conditions significantly. We have provided and continue to provide a historically large amount of liquidity and monetary accommodation. Interest rates are near record lows, and we've said they'll be so for a long time. If our purpose is to provide more certainty and confidence to the markets, we can best do that by stopping trying to tweak a little to no benefit. We undermine our own credibility and perhaps even the general public's confidence in us by giving the public the impression that we react to short-term events with little clear understanding or communication of the underlying frameworks that are guiding us. I hope we can continue to develop a clear framework for our operations in our upcoming meetings. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Williams.

MR. WILLIAMS. Thank you, Mr. Chairman. The news since our last meeting has been deeply discouraging. Job growth has been dismal for four straight months, and consumer sentiment has plunged to levels I'd hoped I'd never see again. Several of my business contacts report that their businesses and bookings took a nosedive in August. These are extremely worrisome developments, especially when the recovery is so vulnerable. Since our last meeting, I trimmed my GDP growth forecast for both 2011 and 2012 by about ½ percentage point each, and compared with my forecast from last November when we undertook LSAP2, I have lowered my GDP growth forecast for both 2011 and 2012 by 2 full percentage points, to put some perspective on what the outlook looks like today relative to last November.

Yet even the U.S. data look good compared with the escalating crisis in Europe. Stresses in the European financial sector continue to mount, and by several measures, such as spreads and financial sector credit default swaps and market equity ratios, those strains are now comparable to what they were in September 2008. If European leaders do not find a credible and decisive solution very soon, I fear a full-blown financial crisis could erupt, and if this transpires, the damage to our financial system and the economy could be severe. As already discussed, such a dire scenario is laid out in the Tealbook's "Very Severe Financial Stress in Europe" alternative scenario. My staff explored other plausible scenarios with different assumptions about how the crisis could evolve, but the message is clear throughout these. A massive European financial crisis could stall the recovery and drive inflation into negative territory. My business contacts are very worried about the potential failure of one or more large European financial institutions. In fact, they tell me they are seeking shelter from the brewing storm already and have moved cash out of European banks. In fact, one contact told me that he is reducing his exposures to U.S. banks already.

Uncertainty in U.S. financial markets has soared to one of the highest levels in 50 years, exceeded only by the recent financial crisis and the 1987 stock market crash. We face an enormous uncertainty shock that could easily tip us into a recession. Based on his research on the effects of uncertainty, Stanford's Nick Bloom predicted back in June 2008 that the U.S. would fall into a recession, and he is now making that same prediction again. My staff examined the probability of a recession using various statistical models. Looking at U.S. data alone, they found that the probability of a recession in the next 12 months is only about 20 percent according to their models, but following up on Vice Chairman Dudley's question earlier, we actually did look at how adding European data changes those predictions. We included European economic indicators in our recession prediction models, and the probability of a U.S. recession when you include the European data increases to about 35 percent. This number echoes the most recent Blue Chip survey and the *Wall Street Journal* survey of forecasters from last week, both of which put the odds of a U.S. recession by the end of next year at about 1 in 3.

Even if we avoid a recession, the outlook for unemployment is bleak. Now, of course, it's important to distinguish between cyclical and structural unemployment, and recently my staff took a close look at the question of whether the large increase in the number of long-term unemployed workers signals a sizable increase in structural unemployment, an issue raised by President Lacker at our last meeting. According to one theory, the pool of unemployed workers now includes several million people with intrinsically very limited employment prospects—that is, they are structurally unemployed. For these workers, the odds of getting a job again are slim to nil. A prediction of this theory is that the job-finding rate of the long-term unemployed should have fallen to very low levels by now and be essentially zero for those who are out of work for two years or longer. However, this prediction is at odds with the microeconomic evidence. Even the long-term unemployed are currently finding jobs at a rate greater than 10 percent per month, and this job-finding rate is about the same whether a worker has been unemployed for six months or for two years. Moreover, the rate at which the long-term unemployed are finding jobs has risen this year and is now higher than it was in 2009. So this evidence suggests that a sizable share of the long-term unemployed today are out of work because of a lack of demand rather than because they are unemployable.

More generally, the preponderance of evidence indicates a structural factor explains only a portion of the rise in unemployment over the past few years. As discussed at the January meeting and confirmed by subsequent data, careful empirical analysis of labor market conditions indicates that the effective natural rate of unemployment reached between 6 and 7 percent, and that's consistent with the Tealbook's estimates. Indeed, this analysis implies that the natural rate is now declining somewhat because of the diminishing effects of extended unemployment insurance benefits.

So let me finally turn to inflation. The first half of this year, the rate of inflation rose from very low levels recorded last year. In large part, this run-up was due to a spike in commodity and other import prices and the effects of supply chain disruptions. These transitory factors have now largely played out. The downshift in the outlook for the global economy is reducing pressures on commodity prices, and domestically the weak labor market translates into a lack of wage pressures. Throughout all of the upheaval, inflation expectations have remained remarkably well anchored. Putting this together, the inflation outlook, to me, continues to seem relatively benign, with PCE inflation at around 1½ percent next year.

In summary, the outlook has darkened yet again. The risk of a recession is uncomfortably high, and the situation in Europe has become increasingly dangerous. Inflationary pressures are receding, and overall the economic outlook is in many ways, I think, much worse than it was this past fall. But I'll comment further on that tomorrow. Thank you.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, it may surprise many at this table that, like President Rosengren, I'm more concerned now about developments on the employment front than about those on the inflation front, and I'll reverse the order of comments. Unlike President Williams, I'm going to lead off with inflation and explain my views, talk about what I hear from the CEOs and my business contacts, and then mention an issue that I think is of great importance to us but one that we often do not talk about.

I will dispense with talking about Texas—because we have a presidential candidate who talks about it too much [laughter]—except to say that the data are a little fuzzy. We had 3½ million acres burn and an enormous amount of destruction in terms of homes and agriculture, and it's difficult to decipher the August data on events that took place during what is now the hottest summer on record in the history of the United States, surpassing that in 1934 in Oklahoma during the Dust Bowl. So I won't bore you with that.

With regard to inflation, I want to correct one thing that Eric mentioned, which is a concern that I also have. If you look at the growth of wage and salary increases on a four-quarter basis, it is quite limited at 1.5 percent. If you look at total compensation, which includes benefits, it's actually risen to 2.2 percent. Despite that, all of our indicators from the trimmed mean PCE indicate that inflation is settling in around the 2 percent range. We have seen some pressure in core goods. We've also seen some in core services—one of the previous interlocutors mentioned owners' equivalent rent and rents—but if we look at the 178 items that we carefully track, we're seeing it settle in at about a 2 percent rate. And I do believe that the headline inflation rate, as you seemingly posit, is trending more in that direction than trending the other way, such as President Lockhart mentioned.

Not unimportantly, one has to consider what is the risk of deflation, and I note in that light that the fraction of components experiencing price declines within the 178 items that we carefully track for the trimmed mean PCE has fallen to a much more normal level in the past few months—certainly more normal than it was during the deflationary scare period of 2008 to 2010. It now averages closer to 30 percent, as opposed to the 40 percent level that it was running during that period. So I can see inflation coming in around 2 percent, trending toward that from its current headline rate, which is much higher, driven by core goods and OER, but I do not yet see signs that deflation is a significant threat.

My concern is about economic growth and employment, and if you surveyed all of the CEOs that I talk to—and I should note for the record that I've added a new one, Bunge, which is a significant agricultural producer—all of them pretty much are on the same note. If you look at the key ones that I like to look at, which are telephony, semiconductors—because of the nature of our society—rail movements, logistics, and air transportation, you're pretty much hearing the same response. Things have gotten awfully tepid. Volumes have dropped off. The past three weeks, in particular, the very large telephone companies and communications companies have seen things almost grind to a halt, and when I say "grind to a halt," I'm talking about year-over-year growth reduced nearly to zero. You see the same thing in the rails. Year-over-year performance for the rail industry in 2010 was up roughly 10 percent; in the first half of this year, 5 to 6½ percent; and now, it's running between 0 and 1 percent. I won't use the profanity that was repeated almost as though they had decided to collect it at the Business Roundtable with regard to the issues of what is stymieing their activity. We've heard an awful lot about regulation and uncertainty about fiscal policy. I've talked about that in previous meetings, but there's no question that there are concerns about final sales and demand.

Now, with regard to job creation, President Rosengren mentioned something that I think we should consider, and that is, he talked about more-stringent supervisory activity over foreign branches and their activity in the United States. I believe that's what you said. I want to not dwell on that subject, but I want to dwell on another aspect of supervision and regulation. Something is wrong with the transmission mechanism. I believe we have created an enormous amount of liquidity. We see it in terms of excess bank reserves, half of which are domestic banks. We see it now in the over $2 trillion in liquidity that sits on corporate balance sheets in excess of working capital needs, and as I've noted before—and actually, before he left, Governor Warsh spoke about it—there's an enormous amount of liquidity that's floating through the nondepository financial system. My concern is that we haven't figured out how to engage that. Logic tells me that community banks and regional banks play a bigger role than we typically account for at this table. If small businesses are indeed the job creators or at least the job incubators, the question is, where do they get their credit? And I'm wondering, Mr. Chairman, if we think only about monetary policy qua monetary policy and don't think about how it is transmitted into what counts most at this juncture of great economic delicacy, job creation, then all the discussions we're having about monetary policy are for naught. As I've said publicly over and over and over again because I like the analogy—I hate to bore you with it again—we certainly have filled up the gas tanks. Whether we've filled them enough or we've filled them too much is another issue, but somehow the business creators and the business incubators are not depressing the pedal and engaging the transmission mechanism.

I would like to suggest, and those who are involved in bank supervision might correct me, that we certainly spend as much time, if not more, on how we engage that transmission mechanism, particularly with small community banks—those are the ones that lend to small businesses and local businesses—and at least oversee our supervisory and regulatory activities so that we don't discourage them from transmitting what we've created and put into place. I'm willing to bet that we spend less time thinking about that, and I hope I'm wrong, than we do about capital ratios, too-big-to-fail, and the problems with systemic risk with the large banking institutions. But I just fail to see how we're going to take the liquidity we've created—and if you all decide to create more at this meeting or whatever the decision of the Committee is—and have it more effectively transmitted into what really counts, which is job creation. I'll argue tomorrow that I think many of the activities we've undertaken actually have been counterproductive on that front, but I raise this because I don't expect anybody else to do it. I'm more concerned about it than I am about inflation, and I want to put it on the table. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Since our August meeting, I, too, have made further downward adjustments to my outlook for growth, and I have made upward adjustments to my near-term inflation outlook. However, I think the critical issues today are not so much differences in the point forecast but rather the overall likelihood of turning points in the level of output and in the inflation rate. In simple terms, the key questions are, are we headed into recession, and have we turned the corner toward lower inflation again? Turning points are inherently hard to judge, but the answers to these questions will have major implications for policy beyond the current meeting. Past experiences indicate that if we believe a recession is likely, then we will want to act early and aggressively. Our flexibility to act early or more aggressively in this current environment depends on the extent to which the recent acceleration in inflation numbers has been reversed. It often takes months to definitively answer questions like these, but I will offer my current thoughts on both.

Overall, I agree with the Tealbook's assessment that the most likely scenario is for the economy to make it through this period of anemic growth without a recession. This forecast is easily supportable with hard data. But with such slow growth, there are many possible shocks that could easily push us back into recession. Of course, right now, the potential for a crisis in Europe looms large as a potential recession trigger for the United States. Also, like the Tealbook, I find myself concerned about changes in business and consumer sentiment, even while the hard data continue to show slow economic growth. As the "Recession" scenario in the Tealbook shows, shifts in business and consumer attitudes can interact to produce a recession. So what can we infer from the recent business and consumer evidence?

On the business spending side, most of the data show slow growth, while sentiment indicators are more worrisome. In my discussion with Fourth District business leaders, many reported that their output and sales had slowed, but they are projecting flat demand for their products rather than a significant pullback. In this environment, they are not yet adjusting their production plans in response to weakening sentiment. Nonetheless, the same business executives are watching developments carefully and generally report that they are poised to quickly cut back if necessary. One interesting example came from a global capital goods producer headquartered in my District. Because there is a long lead time for the firm's orders, this capital goods producer is still very highly profitable and busy filling existing orders. But it is also starting to plan for possible cutbacks in production based on a weakening economic growth profile here and abroad. It recognizes that today's consumer spending slowdown could produce a sharp pullback on capital spending in the quarters to come unless consumer demand recovers in the next few months. Responses like this are sufficiently common to make clear that, while the economy has not entered a sharp slowdown, it may also not be far from tipping into recession.

Compared with businesses, consumers look even more cautious during most of the recovery. On the positive side, as the Tealbook notes, the data clearly show declining consumer debt burdens, but these declines could be either the result of households' decisions to borrow less or a result of banks' decisions to cut back credit to riskier customers. Economists at my Bank have been examining credit bureau files of millions of consumers with widely differing levels of debt and differing levels of credit scores. Interestingly, both low- and high-risk individuals are cutting back their use of credit, the number of open accounts, and the application for new credit. Our analysis points to an ongoing pullback on the part of consumers rather than banks. Unfortunately, the data also reveal no significant recovery in credit, even among the high-credit-score borrowers. So it appears that today's consumers are still pulling back from borrowing, although not as rapidly as they were during the recession. In the long run, this household deleveraging will benefit the economy, but obviously in the short run, further deleveraging by consumers is likely to continue to hold back the pace of GDP growth.

With the pace of recovery so sluggish, recent inflation data continue to be a worry. A key question is whether the recent upward momentum in core inflation will die out. I think it will, but I wish I could be more confident. On the one hand, I continue to see significant factors restraining inflation in the next year or two. Among them are low employment cost growth, continued productivity growth, and weakened international demand for commodities. Yet, on the other hand, in recent months I have been seeing more pressure in my preferred measures of the underlying inflation trend—namely, the median and trimmed mean CPIs. Both are close to 2 percent on a year-over-year basis but have been up much more sharply over the past three months. This pickup in measures of underlying inflation reflects acceleration in prices of many CPI components. In fact, in the latest release, almost two-thirds of the consumers' market basket saw price increases above 3 percent in the month of August. Given the inertia in prices, I am a little skeptical that disinflation is just around the corner, but it is likely to develop. Fortunately, financial market participants appear to have shrugged off the latest CPI data. In the latest estimates from the Cleveland Fed model, there continues to be a downward shift in inflation expectations. Most notably, in inflation expectations at the policy-relevant range of three years out, two years forward, we have seen a dip to just under 1½ percent. This is, again, reason to anticipate that inflation rates will come down.

Considering all of this evidence, I think the most likely scenario is that economic growth will gradually pick up while inflation rates will remain close to 2 percent. Of course, there is enough uncertainty in the air for this outlook to shift dramatically, as it did over the summer. At this point, I see the risks to growth as primarily to the downside, and the risk of a recession is significant. While inflation risks have gotten more complicated, I think the inflation risks remain balanced. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. After reviewing the messages from my directors and business contacts, I think the best way to characterize their commentary is that the

U.S. economy is treading water at the moment. No one I speak with disagrees with the view that the economy is largely moving sideways relative to trend growth. As of now, none see their own businesses dropping off as if the economy were in recession. Manpower Employment Services noted that its July and August business was volatile—down and then up a bit. Most of Manpower's clients are experiencing flat or, at most, small increases in revenue, and some are making contingency plans to cut back on their workforces in case the economy deteriorates. Other contacts noted similar contingency planning. One of my region's best-performing large manufacturers with a globally diversified business line described the current situation by saying, "The ice keeps getting thinner. We expect things will be fine unless the ice breaks." It sounds like nice theater, but here's the scary part: The company has instructed all of its units to mock up plans for a 30 percent reduction in capital expenditure spending if it finds it needs to pull the trigger. To recount the recent fundamentals succinctly, developments in Europe and Washington, weak U.S. economic data, and the associated volatility and net declines in U.S. equity markets all have had negative effects on household and business confidence. Cyclically sensitive industries, like autos, are expressing substantial concern over the drop in consumer sentiment and the potential for a falloff in demand in the fourth quarter.

In financial markets, several contacts noted how things today feel eerily as they did in 2008 before Lehman went down, and one can hardly blame them, considering the risk to financial institutions in Europe, highlighted most recently by the funding stresses faced by the French banks over the past couple of weeks. One contact noted the widely held expectation that the U.S. economy is in for a long slog but no double dip. However, they are concerned that this forecast couldn't hold up to the financial contagion that would result from further significant stresses on some big European banks. Of course, substantial progress has been made. Since

2009, U.S. banks are better capitalized and have greater liquidity cushions, and the risks from excessive leverage have fallen in some sectors. For example, our financial contacts tell us that hedge funds have been reducing leverage for some time. Consequently, the recent equity market declines did not experience any amplification effect from forced sales to meet their debt obligations. Instead, recent equity sales likely reflected greater pessimism in general about the economic situation—greater economic risk, for sure, but less leverage risk. That's what our contacts suggest.

Finally, a different parallel to 2008 is the concern over inflation pressures. Like today's situation, back in 2008, there were substantial concerns over the risks of continued higher inflation. Indeed, my directors and I, in August 2008, voted for an increase in the discount rate in order to reduce those inflationary pressures. In my opinion, that turned out not to be the right move. Inflation concerns evaporated quickly with the economic downturn and commensurate with the decline in actual inflation. Today, with the currently weak business outlook, the pass-through of earlier high materials costs into prices is waning. At this point, let me take the opportunity—President Lacker made the comment about how output gaps and resource slack in our models depend importantly not just on how you would detrend these objects but also on a comparison with the efficient flex-price equilibrium. No?

MR. LACKER. No, you don't detrend them.

MR. EVANS. No, no. Exactly. That's what I'm saying. They do not rely on detrending.

MR. LACKER. Not "just."

MR. EVANS. They instead rely on comparisons with the flex-price equilibrium.

MR. LACKER. Right.

MR. EVANS. Okay. Right. Our DSGE model obeys that type of definition—the Woodford definition. But here's the important thing. It sounds as though we don't quite know what we're doing when we talk about resource slack. That's not right. It fundamentally comes down to, what do you think are the sources of the shocks that hit the economy? In the flex-price equilibrium, it's going to depend on whether or not you think they are technology shocks, so that in the efficient equilibrium, output is a lot lower in a potential output—or flex-price equilibrium—sense or whether you think that demand is lower, and it's not the case that potential output is lower. So if you think that the most recent downturn and impediments to growth are due to technology shocks or higher wage bargaining on the part of workers that leads to higher wages and then to a higher unemployment rate, that would in fact lead to thinking that there's not as much resource slack and there would be more inflationary pressures. But if you take the view that they are demand shocks, as our Chicago DSGE model does in fact find, then there's a lot of resource slack—indeed, there's a ton of resource slack as they continue to update that model—and inflationary pressures are lowered. Again, it's a difference of opinion on what the driving forces are for the current period.

To sum up, here's my simple view on our current macro forecasting exercises. The economy is performing pretty poorly right now. There's no meaningful difference between today's world and one that has the NBER's "bad housekeeping seal" of being labeled as in recession. One typical response during periods of economic weakness, like we face today, is to spend a lot of time trying to figure out whether or not the economy is falling into a recession. That effort just isn't necessary at this point. Whether growth is going negative or slightly positive is not the issue. Even a continuation of modest positive growth will leave us with large resource gaps, appropriately defined, for an unacceptable period of time. I continue to agree with the Tealbook's assessment that substantial slack will result in inflation over the medium term coming in under my interpretation of our objective—namely, 2 percent. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. Overall, economic conditions in the Eighth District have improved slightly during the intermeeting period. District employment rose somewhat during the spring. Business contacts who have daily data on sales revenue and volumes generally indicated that business remained reasonably stable during August and may have improved somewhat in the early weeks of September. However, these contacts were intensely alert to the possibility of a looming slowdown. Some businesses saw signs that the upcoming holiday season may be weaker than last year, although it may be too early to make a judgment on that. In particular, should a recession not develop, many retailers may then have to scramble to provide a sufficient level of product for the fourth quarter. Because most of us are projecting slow growth with no recession, this might be a likely outcome as we go through the fall here. Businesses associated with agriculture are generally doing quite well. Businesses associated with information technology also tend to report continuing strong sales in a rapidly changing environment. Energy-related businesses continue to prosper and sometimes report that bottlenecks or technological problems have caused shortages in some areas of the business. However, in that area, much of the strongest activity is located in Asia. Looming cost containment in the health-care sector seems to suggest that this will not be an area of job creation over the next several years, even though it has been a source of strength in the past. District real estate continues to struggle, as it does elsewhere in the country. For instance, 90-day-plus delinquencies have increased slightly in recent months.

Based on the July 29 revisions to GDP over the past several years, I think the U.S. economy is at considerably more risk of a period of prolonged slow economic growth. As markets digested this report, they tended to mark down potential growth for the U.S. going forward and revalue U.S. corporate equities downward. The "very slow growth" view may well turn out to be the correct one, if history is any guide to the pace of recovery following severe financial crises.

On inflation, I agree with several of the comments around the table so far. I've been dismayed that during the past year, measures of production and income surprised to the downside, yet inflation surprised to the upside. As I understand the forecast last fall, we were not likely to see this much inflation, even if the economy had grown at the projected rates of 3½ to 4 percent. This is lowering my confidence that we can accurately predict likely inflation outcomes going forward. Our models may not appropriately accommodate the effects of policies we have adopted since encountering the zero lower bound in December 2008.

As many of you noted—and I'll just mention—the European sovereign debt crisis remains an acute risk to U.S. economic growth and global growth prospects. Our likely response should that crisis become more severe is an important preoccupation for this Committee. It seems to me that this crisis has the potential to deliver a powerful macroeconomic shock to global markets in the coming months.

I want to comment for just a minute on flexible inflation targeting. I'm very encouraged to find that many on the Committee spoke highly today concerning the virtues of flexible inflation targeting. I've been an advocate of this form of inflation targeting since I joined the Committee more than three years ago. The FRB St. Louis has sponsored numerous conferences on the merits and demerits of inflation targeting over the past two decades. If the proposal on the table is to adopt flexible inflation targeting as practiced by some of the central banks that have led the effort in this area, then I am in full support of that. In fact, I would suggest that we simply adopt most of the practices of the flexible-inflation-targeting countries wholesale. The first step in that process means adopting a specific numerical inflation target. But in addition, as has been pointed out, the Committee would have to communicate more effectively by publishing something more like a *Monetary Policy Report* or an *Inflation Report* at a quarterly frequency. The United States has been a laggard in this area. It would substantially improve U.S. monetary policy to go in this direction, in my view.

I want to make some comments on communication as a one-time tool. We've been talking about the balance sheet policy or the lowering of the interest rate on reserves as being a one-time effect. I think communication challenges also have this one-time aspect. The exercises that illustrate the effects of communicating that monetary policy will remain at the zero bound for a longer-than-expected period also have a one-time flavor to them. In the experiments, the policymaker announces, with perfect credibility, that the policy of zero rates will last longer than currently anticipated. The experiment is to then trace out the effects of this announcement, assuming no further shocks to the economy. But especially considering the time scales involved—and you're talking about years here—further shocks will undoubtedly occur in the meantime as you're waiting to get to the period of extra time at the zero bound. Real-world policy has to be able to react to current economic developments in this situation. There is little guidance offered from the literature or in the simulations of the staff as to how the policymakers should react in this situation. In particular, a positive shock would move the desired date of takeoff sooner, but the policymaker cannot move the commitment in that direction without contradicting the original purpose of extending the horizon.

I want to make a last comment here on the paper by Ravenna and Walsh. President Evans said he did not like some of the assumptions in Ravenna and Walsh. I can appreciate that. One advantage of a DSGE model is that the assumptions are laid bare for examination; then we can debate what the appropriate framework is for analyzing a particular economic phenomenon. I do not think it is a good reaction to revert to a model in which such questions cannot be asked and to claim that that is a better model from which to take policy advice. In any event, my point was in part that we have a dearth of models on which to base policy opinions that have both monetary policy in them and a serious model of unemployment. If Ravenna and Walsh is discarded, then we have zero papers on the topic. Thank you.

CHAIRMAN BERNANKE. Thank you. First Vice President George.

MS. GEORGE. Thank you, Mr. Chairman. Since the last FOMC meeting, economic activity expanded modestly while inflationary pressures eased in the Tenth District. Mining and manufacturing job gains helped push the District's unemployment rate lower. Strong export demand, particularly for food and chemical products, supported manufacturing activity and boosted factory employment almost 4 percent above year-ago levels, roughly double the national rate. More District contacts reported labor shortages for high-skilled positions, but wage pressures were muted. Robust global demand for commodities underpinned the District's economic growth. The number of active drilling rigs in the District climbed in the intermeeting period, and contacts expect additional increases in coming months with the possibility of tight global energy supplies and higher prices. Smaller-than-expected crop production, record-high agricultural exports, and historically low inventories for grains are driving agricultural commodity prices and profits higher.

The surge in farm incomes is rapidly being capitalized into District farmland values, which continue to climb at an annual rate of 20 percent. In response to the run-up in prices, land brokers tell us that the number of scheduled farm auctions has increased in recent weeks. A typical financing arrangement for a farm purchase is 20 percent cash, 50 percent debt against the purchased farm, and 30 percent debt pledged against other owned assets, which typically are another farm. We continue to watch these developments, and especially the use of leverage in these transactions, very closely.

Still, District growth has not been immune to the economic weakness. Consumer spending slowed despite solid back-to-school shopping and auto sales, and weaker demand slowed the expansion at District factories. Contacts expected the growth in consumer spending and factory activity to slow further over the next few months.

Turning to the national outlook, the data have painted a mixed picture. The quarter opened with promise compared with the first half of the year, as some of the temporary factors that weighed on economic growth have dissipated. Unfortunately, the more recent releases have been less encouraging, and financial markets are unsettled. In terms of the most likely outcome, I expect that the economy will avoid recession and growth will gradually pick up over the next few years. Monetary policy is highly accommodative, and the passage of time should help repair household balance sheets and, eventually, the housing market. But I have marked down the strength of growth over the forecast horizon, as the labor market recovery is taking longer than previously anticipated and fiscal policy will be a larger drag. Furthermore, the downside risks to the growth outlook are considerable and have increased. The sovereign debt situation in Europe is very unstable, and a full-blown financial crisis would have the potential to spill over to the United States via interconnected financial markets. Near-term solutions to problems in our housing market remain scarce, and the recent declines in consumer sentiment are reminiscent of 2008.

The inflation picture complicates our decisions. Price pressures are broad based, and inflation recently has been above 2 percent. With a gradually rebounding economy, a depreciating dollar, and stable inflation expectations, I do not expect that inflation will decline much below 2 percent over the next few years. While slow growth poses a downside risk to inflation in the short run, higher energy and commodity prices, along with an extended period of highly accommodative monetary policy, pose upside risks to inflation over a longer horizon.

In summary, I expect the recovery to continue, with economic growth gradually picking up the pace after a weak first half while inflation remains near 2 percent. However, the risks to the growth outlook have moved higher and seem skewed to the downside, given the events in Europe. Thank you.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I heard from a variety of business contacts in the Ninth District in the intermeeting period, and I would say the dominant word is "caution." There is hiring going on in the Ninth District. There is cap ex going on. But neither is proceeding at a rate necessary to spur significant economic growth. And as a result, the unemployment rate has remained relatively steady in the District over the past few months, albeit at a rate much lower than that of the national average.

Nationally, my outlook has deteriorated since August but remains slightly more optimistic in the near term than the Tealbook. And certainly I would say "slightly." I now expect the unemployment rate to fall to just over 8½ percent by the end of next year, and I expect real GDP growth to average 2.3 percent over the two-year period from the fourth quarter of 2010 to the fourth quarter of 2012—that is, through 2011 and 2012. My forecast for inflation has firmed slightly, and I now expect core inflation to average 2 percent per year over the two-year period from the end of 2010 to the end of 2012 under what I would consider optimal monetary policy. I would say, like President Lockhart, that I was quite sympathetic to, and found appealing in terms of my own views about the economy, the scenario described as "Greater Supply-Side Damage" in the Tealbook. That means that on the real side, I'm expecting the recovery to continue but at a painfully slow pace. On the inflation side, under the assumption of no additional accommodation at this time, the evolution of prices is consistent with our dual mandate.

Let me talk about risks. I was asked to give a talk to the senior leadership conference in Chicago. And one of the things I talked about was the need to do contingency planning—not just private contingency planning, but also public contingency planning. And let me talk about what I mean by that. My baseline forecast, as I mentioned, is that inflation will run at 2 percent over the next several years. But I do see a lot of risks to that. In particular—as I'll talk about in a few minutes—I see risks that what I'm judging to be deterioration of the supply side is actually something that's occurring on the demand side. And that's going to lead to more disinflation than what I'm anticipating.

So what's one way we can deal with that through public contingency planning? Well, I think that translates into price-level targeting. There's been some talk about generating threes now to make up for ones we had in 2010 and in 2009. I think that's a rhetorical flourish. I see those ones as being totally sunk at this point. By promising threes now, we can't make those ones into twos. But it may be useful to promise to make up for future ones—if we had a one in

2012, to make up for that with threes further down the road. That kind of promise—that's what price-level targeting is all about—could help curb disinflationary pressures.

Now, contingency planning about Europe is much more delicate. But it's important for us, and it's an urgent problem for us, to have in mind what kinds of responses we would take. And I don't think those responses would take the form of monetary policy. Mr. Chairman, you said, I believe, that it would take some form of our lender-of-last-resort function. It's important for us to be clear about what we can do and what we are prepared to do. And establishing that clarity is very challenging because you don't want to create the very risk that you're trying to control. But at the same time, I think many market participants are likely confused about what Dodd–Frank has left intact for us and what it has not and about what we can and can't do without the approval of the Secretary of the Treasury. So trying to be clear about what we can and are prepared to do in the event of severe liquidity pressures due to a European crisis could be very important. Of course, the first thing is some kind of an internal discussion.

In terms of monetary policy, as always—and as we just heard in this cross-table discussion between President Evans and President Lacker—our decisions hinge on our judgments about the quantity of slack in the economy. I do think that President Evans's dichotomy in demand and supply was a little bit sharp compared with what we can discern. Speaking for myself, I would certainly agree that the initial shock that hit the economy in 2008 was clearly a demand shock, and any model that tried to say otherwise I would be quite suspicious of. But there have been ongoing shocks from that. If you just fed that initial shock into the model, you would have expected a relatively rapid recovery from that. And here I'm talking about the usual New Keynesian models. I think a series of ongoing shocks that we certainly aren't fully on top of has been hitting what's going on in the labor market.

What's important here is that in a lot of the models we write down, labor is just not as dynamic a decision as it is in real life. When firms hire workers, first of all, they don't think about that individual worker. They think about how it's going to affect a group of workers, and they think about that as being something that's going to be lasting over a longer period of time. Once you admit that possibility, you can start to think about taxes, regulation, and firing costs. When you talk to firms, they say that they learned how big firing costs were in 2008 and they do not want to go through firing again, so they're very reluctant to hire. Regarding mismatch, there's labor-biased technological change that has gone on over the past two years as well as a variety of forms of uncertainty, some of which are on the demand side, certainly, and some of which are on the real side. All of this is to say not that the supply-side shocks are clearly what are going on, but that it is much more confusing than simply saying that it's clearly a demand-side disturbance. That's why I've been pushing in past meetings, and continue to push, the idea that looking at inflation data, the behavior of inflation, is what helps us sort out across these things. And the increase in inflation since the end of 2010 is disturbing on that and points to more support for this "Greater Supply-Side Damage" hypothesis than one would like.

I'll close by pointing out that by some measures, there's not that much slack in the economy. I thought it was interesting to compare measures of slack now with those in mid-2004, during what was then considered a jobless recovery. I think we have a better perspective on what that can look like now. Capacity utilization right now is essentially the same as it was in June 2004; I'm talking about overall capacity utilization. The fraction of the labor force that has been unemployed for less than 15 weeks is only slightly higher now than it was in June 2004. And just as in 2011, the data available on PCE core inflation in mid-2004 showed a sharp increase to over 1½ percent. As many of you will recall, the Committee reduced accommodation in mid-2004, whereas the Committee increased accommodation last month. Now, I've left out one huge difference in terms of measures of slack—a long-term unemployment rate, which is much higher now than it was in June 2004. So I think this comparison suggests that the Committee is currently attempting to use additional accommodation as a way to bring down the very high long-term unemployment rate. Unfortunately, I believe that it may take large amounts of inflation to reduce long-term unemployment by even a small amount. I'm not saying that that tradeoff is not a worthwhile one. It depends on your loss function, certainly. But I think if that's what we're trying to do, we should be clear to ourselves that's what we are doing, and we should be clear to ourselves that the relevant inflation costs may in fact be significant. And to return to my theme from earlier, I think we can retain our credibility only if we are also clear to the public about the potential inflationary costs involved in attempting to reduce long-term unemployment using monetary accommodation. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. As we've all, I think, noted around the table, the economic outlook continues to disappoint, with the near-term growth prospects weak and increasing downside risks to growth. At the same time, the inflation data indicate somewhat greater underlying inflation pressures at present. I'm much more worried about the former than I am about the latter.

In terms of the reasons why we don't have forward momentum, most of the reasons don't have that much to do with monetary policy. Monetary policy is a factor, but a lot of other things are going on. First, I think that the failure of Democrats and Republicans in Washington to play nice has actually been quite damaging to household and business confidence. Second, we're not getting the full benefits from lower longer-term rates in terms of refinancing because homeowners have mortgages that are under water, and those mortgages are very difficult to refinance. High GSE fees are also an important factor. Third, as noted by many, the struggles in Europe to wrestle with the inherent contradictions of the euro-system model remain an important impediment to easier financial market conditions, and they pose the greatest downside risks to the growth outlook. Fourth, I think when the outlook does turn darker, this leads to a sharper pullback in confidence than before the financial crisis. Businesses and households that remember the dark days of 2008 and 2009 are quicker to react to indicators—for example, big declines in the equity market—that might foreshadow future weakness than they were in the past. Fifth, I hear a lot from businesses about how regulatory uncertainty is weighing on activity. I really have a lot of trouble judging how important this factor is, but clearly it's cited often, and we know what the sign is at least. It's in the negative direction. And then finally, I do think monetary policy has been a factor here because we've overstated the impetus of monetary policy to economic growth. We believe that monetary policy is more powerful in pushing the economy forward than it actually has been, and this is something that I raised in previous meetings. I think what's happening is that we're sitting here with what we believe is a very accommodative stance for a long period of time, but the accommodation is essentially wearing off in the sense that a given stance of monetary policy has less effect on financial conditions over time and the financial conditions have less effect on real economic activity over time. So you start needing increasing monetary policy accommodation to have the same impetus to economic growth.

On the inflation side, I think we do have to acknowledge that the underlying inflation rate has drifted up more than generally expected, with the core CPI now running 2 percent on a year-over-year basis, but we have to also recognize that 2 percent on the core CPI is not a really high inflation rate. We need to put that in context. I take considerably less signal from that than developments on the activity side. First of all, some of the factors pushing up inflation are likely to prove temporary, tied to the rise in commodity prices passing through into other goods and services and the temporary supply disruption that we saw to motor vehicle production, which then fed into auto prices. Second, one of the things that is causing a rise in core inflation is the rise in rents, and it's hard to get really worried about the rise in rents as a start of an ongoing inflation problem, given that the overhang of unsold homes that's emerging from the foreclosure process continues to be very, very sizable. Third—and this is, I think, the most important thing for me—labor cost pressures remain very subdued. The average hourly earnings are 1.9 percent year over year. The employment cost index is about 2½ percent year over year, and inflation expectations are well anchored. I thought the recent GM settlement was a sign of lack of inflation pressure in the pipeline, as they basically signed for a bonus as opposed to ongoing wage increases. So I don't see much risk that the rise in core inflation will prove persistent. I'm pretty comfortable with the Tealbook forecast, which has core inflation gradually trending down over the next year or two. When precisely that happens, I don't know. If core inflation drifts up for a few more months, that wouldn't really change my mind about the longer-term outlook.

I think that, as everyone has noted, on the financial stability side, the biggest risks stem from Europe. The next few weeks, in particular, are going to be very problematic because it will take at least this long for the 17 European parliaments to enact what was agreed to on July 21, and we all have to be discouraged by how long it's taken—from July 21 to when this is actually enacted. In the meantime, no further broadening of the EFSF seems likely, which is important because we really do need that to backstop Italian and Spanish debt issuance. During this period, there's lots of scope for event risk, ranging from the Greek government not doing enough to get the blessing of the IMF and EU for further disbursements to difficulties in passing the legislation in the parliaments of Europe. I think the Slovaks have said they're not going to pass it until everyone else has passed the legislation. If someone else takes the same posture, well, when does it actually get passed?

The intensifying funding pressures for European banks are an issue, and of course, there's the prospect of further sovereign and bank credit rating downgrades. Yesterday, for example, out of the blue, Italy was downgraded by S&P, and you certainly have to know that if there's going to be surprises on that front, they are all going to be in one direction. Last week was actually a good one among the past few weeks, but as we saw yesterday, these things can turn around on a dime. I wouldn't take any comfort from that.

In my view, in addition to the European governments demonstrating that they're willing to take the necessary steps to keep them on a sustainable fiscal path—the governments have to do the right thing—two other steps are really needed. First, there needs to be a more credible backstop for primary Italian and Spanish sovereign debt issuance. In other words, doing the right thing isn't enough. The market is going to demand your demonstrating that over a longer period of time. So you need something in the interim to get you over that gap. In my view, a credible backstop that caps debt service costs would help reassure market participants that the fiscal path was in fact sustainable. This also would be important because it would lessen jitters about the European banks, although more capital for the banks might still be needed, even with a fiscal sustainable path. The underlying problem, at least to my mind, is not bank capital but uncertainties about the long-run fiscal sustainability. You take that uncertainty away, and a lot of the bank issues become a much more manageable problem. I hope that once the parliaments approve the current set of proposals, the next step will be figuring out how to leverage the EFSF resources to create a credible backstop. The second problem is that the European leadership needs to be clearer about how all of this is going to work over the medium term. Right now, we have the ECB buying sovereign debt, but what happens after that? A greater fiscal integration really does appear to be necessary, but there's no visibility on how that's going to come about.

In terms of the impact of all of this on the United States, I guess the good news to date, at least, is that beyond much lower bank share prices, U.S. banks have not been greatly affected. Their funding, unlike that of their European counterparts, is really holding up—we don't really see signs of any problems for the U.S. banks. And as noted by others, their capital levels and liquidity buffers are much greater than a few years ago. But I don't take a lot of comfort in that. If the EMU were really to rupture, the damage to the U.S. banks and the U.S. economy would be extraordinarily severe, almost regardless of what we do here to prepare ourselves. That's why I think the most important thing we can do is encourage the Europeans to recognize the danger and act proactively. We have been doing that in several ways. We have been encouraging the Europeans to extend the maturity of their dollar swap auctions. The 84-day operation was at least partly at our suggestion, and we've tried to make it very clear to the ECB that people in the United States are unclear about the ECB's willingness and ability to lend to European banks. So we've tried to encourage them to be more public about the capacity, the willingness, and the ability of the ECB to lend to backstop their institutions. Jean-Claude Trichet has pointed out more recently, I think, some pretty interesting numbers. The ECB currently is lending about €500 billion to European banks. The total collateral pledged to the ECB is €1½ trillion to €2 trillion. Thus, there's plenty of capacity there, and the total collateral in the system that could be pledged to the ECB is €4 trillion to €5 trillion. So it's true that a few very unhealthy banks have run out of collateral, Greek banks and a few others, but most banks actually do have the capacity to borrow from the ECB. To remove the sense of uncertainty, at least a little bit, the

Europeans and we could point out to people that there's really not a problem with liquidity for European banks. The ECB has the capacity to provide them with liquidity in euros and in dollars.

I would not take any comfort in the fact that bilateral exposures to particular banks and countries look manageable. We always say, "Well, how big is the U.S. exposure to Italy," or "How much is the U.S. exposure to German banks?" And on a bilateral basis, everything always looks pretty manageable. The 2008 experience, I think, underscores the fact that there are numerous contagion channels, and so bilateral measures of risk exposure provide really a lot of false comfort under these kinds of circumstances. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you.

MR. BULLARD. Mr. Chairman?

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Can I just ask one question of Vice Chairman Dudley? I thought the whisper on the EFSF was that, yes, they're going to expand it to €1 trillion, but they don't want to do that because it will take the pressure off the Spanish and Italian governments. Is that a reasonable assumption, or do you think that that's broken down some?

VICE CHAIRMAN DUDLEY. I'll give my answer, and then Steve can give his answer. My take on it is that getting it through the parliaments is so problematic that they don't want to add any noise to the process by talking about their need to upsize it or leverage it. I think they want to get it through the parliaments first with its expanded powers. And then once they have the expanded powers—it's like TARP in the United States. Once TARP got through, it got used for totally different things than what it was originally proposed for. [Laughter]

MR. TARULLO. Note the distinction though, Jim, in what Bill just said. There's a difference between what Bill just said and saying, "Okay. We're going to come back and ask for another TARP now." And I think that is a distinction in the minds of the Europeans.

VICE CHAIRMAN DUDLEY. My view is that after the parliament has passed the legislation, there may be fuller discussion about how to leverage the EFSF to maybe backstop Spanish and Italian debt, but there's a reluctance to put that on the table today because that could make it much more difficult to actually get it passed through all of these parliaments.

MR. KAMIN. If I could just add to that, I completely agree with everything you've said, including the fact that right now European leaders are focusing almost exclusively on getting the current changes to the EFSF passed. A couple of weeks ago, I had your idea in mind, and I hoped it were true, but every single European, including many ECB officials that I've talked to, has provided me with not the tiniest hint that they have in mind this expansion of the EFSF's capabilities and they're just keeping it secret. I just haven't gotten any information that would suggest that view.

CHAIRMAN BERNANKE. I can confirm that from some meetings of my own. So they're keeping the secret very, very tightly to the vest. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. The data we have received since August confirm that consumer spending is anemic. The labor market is deteriorating further, and growth in both emerging market and advanced foreign economies is slowing. We need a revival of confidence to spur recovery. Instead, pessimism has deepened among households and small businesses. Safe-haven flows have pushed Treasury yields toward historically low levels, while many other indicators of financial conditions have tightened over recent weeks. Since last March, when our meeting statement suggested that the economic recovery was on a firmer footing, real PCE has advanced at an annual rate of only 0.4 percent, a truly glacial pace. Spending on core nondurables, a cyclical category that includes many discretionary items, has actually declined since March. Moreover, real spending on motor vehicles in August remains nearly 12 percent lower than in March, a reduction that seems consistent with cyclical factors and not just temporary supply chain disruptions.

While I still anticipate some pickup in the pace of economic growth over coming quarters, I have become increasingly concerned that the economy is near stall speed and could easily slip into recession. Indeed, commenting on the findings of the most recent Michigan survey, Richard Curtin, its longtime director, cautioned that in his view, "a renewed downturn in consumer spending is as likely as not in the year ahead." Curtin's assessment is substantially bleaker than that in the Tealbook, which projects real PCE growth of 2.3 percent in 2012. The survey's index of consumer expectations, which is a component of the index of leading indicators, fell in September to its lowest level since early 1980. The percentage of consumers expecting their finances to improve in the year ahead declined to 17 percent, and the fraction of households anticipating a decline in their inflation-adjusted income soared to 60 percent. These readings are the bleakest ever in the history of the Michigan survey.

The Tealbook projects that the recovery will gain some momentum in 2013. The driving force is an assumed diminution of the gloom that is now afflicting consumers and businesses. The lifting of gloom is sufficient to create a self-fulfilling prophecy of recovery, moving the economy from its current bad equilibrium to progressively better ones. As Tealbook A, puts it, "The economy's . . . self-correcting mechanisms . . . will gain traction over the next two years, fostered by continued accommodative monetary policy." Some other restorative mechanisms are also working to foster recovery. For example, over time, without sufficient investment, the economy’s capital stocks of housing and durable goods decline absolutely or in relation to a growing workforce or population, raising the return on such investments, and this should spur some revival in spending. Unfortunately, mechanisms of this type are exceptionally weak. The assumption that the gloom afflicting households will eventually lift seems reasonable since the degree of pessimism among households and businesses exceeds anything that appears to be warranted by such fundamentals as income, inflation, unemployment, and wealth. Most recessions are short-lived, and it seems logical that recovery from this downturn will likewise gather steam. But recessions are not all alike. Many occur when monetary policy is tightened to bring inflation down and end when the Fed puts its foot on the accelerator. Reinhart and Rogoff find that recessions following financial crises tend to be prolonged, but when they end, the impetus commonly comes from surging net exports induced by a currency depreciation. This recovery mechanism is operative to some extent, but insufficiently potent as an impetus for recovery. Fiscal policy has often been deployed in the past to get the economy going. At present, though, the scope for a fiscal response seems limited both here and abroad. Indeed, fiscal policy is projected to be a drag on economic growth in both the United States and Europe.

The fact that no meaningful policy response to continuing economic weakness has been forthcoming appears to be a further factor depressing confidence. For these reasons, I find it hard to rule out a scenario along the lines of the “Recession” alternative simulation in the Tealbook, one in which the current malaise intensifies, triggering a further downturn, possibly followed by long-enduring weakness similar to Japan’s “lost decade” or the U.S. Great Depression. During the Depression, the loss of confidence was so deep and prolonged that it was not restored until World War II.

Among the many downside risks to the outlook, I particularly highlight the potential for a significant deterioration in financial conditions to restrict credit to the private sector. Since the August Tealbook closed, spreads on high-yield bonds have reached recession levels, CMBS spreads have similarly widened, CDS spreads on several large banking organizations have risen to levels close to those prevailing at the time of the Lehman default, and the stock prices of financial institutions have declined markedly. In addition, the trend we have been seeing of increased availability of credit and easing of terms in the SLOOS appears to have faltered, and our SCOOS survey points to a diminished appetite for risk-taking. Of course, European banks are facing significant strains in funding markets, and there is pronounced downside risk that increased stress in European financial markets will spill into our home markets.

Turning to inflation, I agree with the Tealbook forecast that inflation is poised to head downward over time as the pass-through of previous important commodity price increases is completed and production and inventories of motor vehicles are restored toward normal levels. Over time, I expect the extraordinary slack in the labor market to push wage growth and core inflation down. Financial markets appear to share this assessment, given that five-year inflation compensation has declined to about 1.6 percent, a reading identical to that registered a year ago just before we announced the inception of QE2. It’s worth recalling that our Committee at that time was concerned about the risk of deflation. Board staff calculations from TIPS computed an implied probability of about 30 percent that the price level would decline by April 2015. That probability fell substantially after QE2 was announced, and it continued to decline through the spring, but it’s been rising ever since and again stands around 30 percent. The implied probability of deflation has risen especially steeply since the August FOMC.

Monetary policy operates with lags, so our decisions need to be based not only on current conditions, but also on the outlook. I'd like, therefore, to conclude by comparing the outlook now and a year ago, when we launched QE2. Of course, there are various ways of performing such an exercise, but one instructive approach is to gauge the evolution of the outlook for 2012. As of October 2010, the Blue Chip consensus was that the unemployment rate would average 8.4 percent in 2012, whereas the latest consensus forecast for 2012 is ½ percentage point higher at 8.9 percent. Indeed, the Tealbook projection for unemployment in 2012 has been revised upward by the same amount since last October. In effect, professional forecasters and the staff each see a more sluggish pace of recovery and a higher trajectory for unemployment than they had anticipated a year ago. In contrast, the outlook for CPI inflation in 2012 is essentially unchanged. The latest Blue Chip consensus and the Tealbook forecast are each only 0.1 percentage point higher than a year ago. In summary, a forward-looking perspective suggests that the likely progress toward our mandated objectives is even less satisfactory than we were expecting around the time that we initiated QE2. That deterioration in the outlook, in conjunction with downside risks that loom larger than a year ago, is a factor that inclines me toward additional monetary policy accommodation, a point that I will underscore in our policy go-round tomorrow.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. Credit metrics continue to improve, and charge-offs continue to drop. With the exception of residential real estate and construction loans, credit quality is now back to historic norms, indicating that the credit healing cycle is maturing.

In the last round, a number of you discussed the apparent preference of banks for cash over lending. I reject this notion, and I would further caution that if we could somehow through monetary policy force banks to make loans to someone, anyone who was willing to borrow the money, then we would not likely be happy with the loans that they found to make. But I will agree with President Fisher that there are likely some adjustments that need to be made to our supervisory policy that would make it easier for community banks, in particular, to go back to lending to the small businesses that are in their communities. Governor Raskin and I are working through a subcommittee of the supervision committee here at the Board, and I would urge all of you to also work with your Community Depository Institutions Advisory Council for information on how we can do this.

But all of the work on supervisory matters won't offset the lack of loan demand. Every banker that I've spoken with right now cites their number one problem as nearly nonexistent demand for new loans, even as loan runoff accelerates. Problem loans are being sold off, charged off, and paid off. Banks have exited some business lines, and runoff in those lines is no longer being replaced. And what recent loan growth has been experienced has been in areas such as auto, where turnover is rapid. So portfolios are shrinking even as new production is too weak to offset the runoff. Those banks that are expanding loans admit that much of their growth comes from refinancing loans off the books of other banks, and as competition heats up, they find a need to watch out for their back door—that is, existing loans going to competitors—as well as to compete to bring new loans into the front door.

Almost every bank noted continued strong deposit growth, but deposits are a mixed blessing, as the need to invest funds from deposit growth adds to the pressure to find productive assets for the investment of funds from loan runoff and maturing securities. Right now, asset–liability management strategies seem focused on running down nondeposit liabilities and buying securities, primarily agency MBS. Interest margins are shrinking, and the potential for CD rollovers to continue to lower interest cost is diminishing. On the positive side, the abundant liquidity has created a ready appetite for portfolios and businesses being shed by foreign banks. U.S. banks have snapped up businesses offered by RBC, HSBC, and ING and the CRE portfolios divested by the Irish banks. On the negative side, most banks are steadily working to reduce their expenses to offset weaker income. Expense reduction is taking the form of closing branches, reducing head counts, exiting products, and, in some cases, selling businesses.

The area where reduced capacity is the most stunning and the most worrisome to me is mortgage origination. The mortgage servicing business has become quite concentrated and is now faced with a number of challenges, such as the treatment of mortgage servicing rights in Basel III capital requirements, as yet unknown servicing standards, litigation risk, and subpar returns as the cost of servicing past-due loans continues to climb. Much of the profit in loan origination comes from the sale of servicing rights. So as the attractiveness of servicing declines, the servicers are less inclined to buy the production of others. Then the wider network of brokers and correspondent bank originators is finding fewer places to sell production, and they, in turn, are reluctant to maintain or add to capacity. And as capacity declines, originators use price to control the flow of volume, which might explain in part why the response to lower rates is less than might be expected.

Capital does not seem to be a problem for most banks, as asset quality improves, earnings turn positive, and balance sheet growth is sluggish to negative. But the drop in market cap as the financial sector has gone distinctly out of favor with investors is stunning. Our forecast of weak economic growth translates into even weaker loan and revenue growth for the banks. So it’s hard to formulate a story about positive upside potential for bank investors, and the potential for downside surprises remains high. Even banks with limited exposure to Europe or mortgage litigation will have trouble attracting investor interest. Three years ago, we worried about the financial system collapsing as a result of poor liquidity and steep losses on assets. Now, it seems more likely to gradually but steadily shrink down to wherever capital and expenses match revenue and asset generation prospects.

All in all, the outlook for banking is no longer scary, but it's certainly gloomy. However, to end on a more positive note, banks have the capital, the liquidity, and, importantly, the profit incentive to lend whenever demand picks up. Businesses, in general, have cash, cash flow, and credit availability to expand should confidence return or sales prospects look brighter. And households, notwithstanding the remaining problems with mortgages and home prices, appear to be under much less financial strain, as evidenced by low delinquency on other consumer debt and quite reasonable debt-to-income ratios. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. As I read the Tealbook last week, I was reminded of some of the wisdom of that eminent economic forecaster, Roseanne Roseannadanna [laughter], and more specifically, her repeated comment that "it's always something—if it's not one thing, it's another." And that's really the story that I think all of us have been facing with respect to economic growth over the past couple of years. There seems in the repeated narrative to be some problem or other, which should be temporary, and it should dissipate, and at that point growth should pick up.

As all of you know, I've had a somewhat different story over this period, thinking essentially that the baseline scenario was one of very tepid growth or a slog, as I've sometimes described it. The stories are now converging, but it's being further complicated by the fact that it's not a static story, that the changes that have taken place over the past couple of years in the economy have changed the explanation that one can bring to bear. I think Janet alluded to this. You could have had the initial view—which was kind of my view—that we're in the Rogoff–Reinhart world, in which it was a financial-crisis-induced recession with a big change in asset values, resulting in a lot of debt work-off. And to some degree, it was going to take some time, and it was also going to take more stimulus to get the kind of kickback that you would expect in a recession. I still believe that's true, and it's true particularly with respect to housing, although as Sarah noted in her first go-round, the difficulty of the housing overhang being worked off purely through existing market mechanisms has been demonstrated. And it's been disappointing—to me, to all of us—that the political branches of government have been so alternately ineffective and uninterested in pursuing this with any great degree of attention.

At the same time, though, we have to acknowledge that there are changes, and not favorable ones, taking place in the economy. I do think that economic growth potential has declined some during this period. I am struck by the number of non-Fed economists with whom I've spoken—non-Fed economists who are not by instinct hawkishly inclined—who have made the observation that there does seem to be a reduction in growth potential. And to some degree, we would expect this based not only on the severity of the crisis, but also on the fact that if production lies fallow long enough and if at least some workers are out of the labor force long enough, their productive capacities and potential will have been diminished. I don't think, though, that that is the dominant explanation right now, particularly with respect to the labor market. John said much of what I would have said, so I won't repeat it.

With respect to difficulties in finding workers, though, and the difficulties that firms report in hiring the kinds of skilled workers they want, there is a reasonably well-documented phenomenon whereby during high-unemployment periods, firms actually take longer to hire workers because their sense is that with all of these unemployed people out there, there must be somebody with exactly the right set of skills, and so their demands are actually higher for a lot of skilled workers. Whereas in a high-growth, low-unemployment period, the human resources mindset is, “We’re not going to get the perfect person because the perfect person already has nine job offers; therefore, we’re just going to have to find somebody who’s good, whom we can train, to whom we can add skills over time.” I think there may be a bit of that going on, but I’ve been asking staff for quite a while now if they can see any indication of localized, either on a geographic or sectoral basis, upward wage pressures, and they haven’t been able to find any, and so I have none to report. I have no doubt that individual instances of such pressures do exist, but it’s nothing that’s coming through in any kind of statistical series that we have. Notwithstanding the Rogoff–Reinhart effect—the fact that there’s surely some diminution in growth potential at least for the next few years—I think that the output gap story is still fundamentally a solid one. The question is, how much is it, and might we hit the point where structural factors are beginning to bite a little bit more quickly? Personally, I don’t think we’re there yet.

Because a number of people raised financial regulatory issues, let me just say a couple of things about that before I finish. And I’ll separate between the big guys and the little guys, if I can do it that way. With respect to the big guys—separating between Europe and the United States, but it’s, in some sense, for everyone—we have had a post-crisis reform agenda, which, in terms of development of the regulations and requirements, we’re probably 50 percent, maybe a little bit more, of the way through. But in terms of the implementation, we’re about 15 to 20 percent of the way through. If we were 100 percent of the way through both, I think we’d feel substantially better about European firms and somewhat better about U.S. firms, but the fact is, we’re not. So the European firms have not raised the amount of capital that they needed to have.

The liquidity-coverage ratio requirements, which will do a lot to constrain overdependence upon wholesale funding, have not even been refined yet because it's not the easiest thing in the world to do that in a way that doesn't undermine a lot of operation of financial markets like the CP market, much less implement it. We're at the point now where we're getting, if not a crisis, at least a lot of stress, before we've had an opportunity to finish the post-last-crisis regulatory agenda. That raises concerns, and it gives me concern as well because banks, particularly European banks, are more vulnerable than I'd like them to be and than they should be were this agenda to have been fully implemented.

Having said that, in a period of high stress you can't generally accelerate the implementation of that reform agenda because you're essentially putting pro-cyclical demands on the financial institutions. So there's a limited amount in the short term that we can probably do to buttress the capacities of the institutions to absorb the shocks that may be coming. As Bill said, we have pushed our financial institutions, the big ones, to build capital through SCAP and through CCAR earlier this year, so they are in substantially better shape because of our concerns about potential downgrades of a few U.S. institutions. We also about a year ago pushed them to increase liquidity. If you look at the balance sheets, they are in way, way better shape than in 2007, much less 2008. But to refer to something else Bill said, if Europe implodes, all of what I've just said is not going to provide insulation from substantial effects. They would basically have to have 95 percent capital ratios in order to be fully insulated from the kind of effect that the breakup of the EMU, for example, might, if it were not properly cauterized, have on the world as a whole. I think that we in the Federal Reserve should be reinforced in our sense that we've been doing the right thing, even against some fairly strong pushback from large financial institutions, on capital in particular, but we shouldn't believe that because of that, there's going to be some insulation if something truly cataclysmic happens in Europe.

On the smaller banks, Richard, I just refer to what Betsy said. It's largely a demand story for some of the same reasons big companies are sitting on so much cash. It's part self-insurance, but it's part just a lack of opportunity for projects into which they can put the cash. Having said that, though, I think you and your colleagues are actually in a better position than Betsy, Sarah, and I are to make the more granular assessment as to whether some supervisory practice at the community bank level is inadvertently giving the wrong kinds of messages, because there are hundreds, thousands of small banks being examined—I guess about a thousand, actually, by us—and we don't get the kind of detail and information about those routinely here, much less review it, that we do for the large institutions. So if you and your colleagues, working with Betsy and Sarah's subcommittee, have some ways to generalize that, that would be great. My suspicion is, though, this is going to be on the margin as well. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. The good news is that the economy has not fallen off a cliff despite the confidence shock that was precipitated by the debt ceiling impasse, the downgrade of the U.S. sovereign rating, the worsening of the debt crisis in Europe, and financial market volatility that has occurred since the time of the August meeting. We have staggered through August without a financial collapse. That said, to me we look stuck. The recent unemployment report shows an economy with little momentum. Payrolls were flat in August, the workweek fell, and aggregate hours worked in the private sector have declined over the past few months.

Businesses are likely holding back on hiring because they are unsure when their customers will fully return. Meanwhile, consumers are still coping with the sharp loss of wage growth and wealth, driven now by a triple whammy: low rates of disposable income growth, drops in home equity, and, now, hits in terms of volatility in the stock market. Consumers are also coping with an uncertain future. Indeed, discretionary consumer spending, a category that excludes housing, food, and health care and includes things like restaurant meals, entertainment, education, and most durable goods, is still down 1.2 percent more than three years after the business cycle peak. Going back decades, such spending has never remained weak for that long. Moreover, consumer spending is showing no signs of returning to the growth rates we saw during the recoveries of the 1980s and 1990s. In this environment, it seems quite likely that both firms and households will be easily frightened by any new adverse economic news, be it gas prices that are remaining stubbornly high or unease about policymakers' abilities to reach consensus on important issues.

At the same time, measures of inflation seem to me to indicate stability. The 12-month change in core PCE prices is around 1½ percent. Moreover, longer-run inflation expectations from the Michigan survey continue to hover in the same range they've occupied for some time, and inflation compensation from TIPS markets has fallen recently.

It appears that the ongoing weakness in the labor market is keeping inflation in check, and that there's not much risk of an unhinging of inflationary expectations that would feed into a dangerous wage–price spiral. That said, there remains the worry that persistently high unemployment could push up the structural unemployment rate in the long run, leading to a situation where the labor market outcomes that are consistent with price stability are much less satisfactory. At present, it's my view that we're probably a long way from that occurring. To be sure, some estimates suggest an increase in the structural unemployment rate of up to 1 percentage point, and that has already happened. But most estimates still put the structural level far below the actual level of unemployment. However, if labor market conditions don't begin to improve sometime soon, structural unemployment could rise further. In particular, the unusually high share of long-term unemployed—with the share of those unemployed for 27 weeks and longer now at 43 percent, well above the 15 percent historical average—raises concerns that workers will at some point begin to find it difficult to reenter employment as their skills decay.

The possibility that the long-term unemployed will reduce our country's future growth potential is exacerbated the longer high long-term unemployment exists. From this perspective, the long path to recovery is relevant. In most recoveries, the ratio of residential investment to GDP jumps and provides a significant impetus to the recovery, but this has certainly not happened in this recovery, and I'm hard-pressed to see how it will happen anytime soon. As a result, I expect it will be quite some time before the unemployment rate comes down in any significant way. Thank you.

CHAIRMAN BERNANKE. Thank you very much. You're certainly fully employed. [Laughter] All right. We will recommence tomorrow morning at 9:00 a.m. A reception is available on the terrace, followed by an informal dinner. No business will be done. Thank you, all.

[Meeting recessed]

September 21 Session

CHAIRMAN BERNANKE. Good morning, everybody. Let me start this morning with the summary of the economic go-round that I heard yesterday.

Participants took note of continued slow economic growth and the increased probability of recession, which was put at about one-third by some models and forecasters. The reversal of some temporary factors that held back economic growth in the first half was positive, but financial stresses related to developments in Europe, and other factors, have offset much of the expected rebound. However, some of this slowdown may reflect supply-side damage and reduced potential as well as Reinhart–Rogoff effects related to the financial crisis. Going forward, risks to the recovery continue to appear to be to the downside as growth near stall speed makes the economy more vulnerable to shocks. Inflation has not yet come down by as much as expected. Core inflation has picked up, and there is some uncertainty about whether that increase is temporary or not. Most saw inflation as likely to move toward mandate-consistent levels in the medium term, with some seeing approximately balanced risks, but others now seeing risks to the upside. It was noted that, unfortunately, growth has come in below, and inflation above, forecasts made a year ago.

Households and small businesses are very pessimistic, with consumer sentiment at historically low levels. Households expect their real incomes to fall and their financial circumstances to worsen. Consumption growth is weak, with some categories of real consumer spending having declined since the spring. The labor market has deteriorated further, with workweeks and aggregate hours worked declining. Participants debated the extent to which persistent unemployment is structural or is becoming structural. Consumer debt has declined, reflecting more reduced propensity to borrow than a restricted supply of credit. Housing markets remain dysfunctional, and some workers face the problem of house lock.

Businesses have become more anxious in response to increased recession risks and ongoing economic and political uncertainty, including uncertainty about U.S. fiscal policy, regulatory policy, and financial developments. Business sentiment and expectations of future activity are flat to down. Most firms see limited need to hire, and some find it difficult to attract workers with the specific skills that they need, although this may reflect greater pickiness on the part of employers. Some firms have contingency plans to cut employment and investment. Export demand for manufacturers and commodity producers remains healthy despite some signs of slowing in a global economy. High material costs remain a problem for some firms. Among key sectors, commodity-related sectors such as energy, agriculture, and mining, as well as tourism and some manufacturers, are doing well. Anecdotal reports, though, from communications, high-tech, and transportation firms are consistent with slowing growth. Fiscal drag is likely to be an increasing issue in both the United States and in Europe.

Financial conditions have continued to be strained—even reminiscent of 2008 in some dimensions. European sovereign debt and banking problems have the potential to worsen significantly, with potentially serious implications for the U.S. financial system and economy. Some large U.S. banks have seen further pressure on their stock prices and CDS, showing some potential vulnerability, though they are generally stronger than their European counterparts with respect to capital and liquidity. Money market mutual funds and other lenders are putting pressure on the dollar funding of European banks, which have a dangerous mismatch of short-term funding and long-term assets. More supervisory attention is needed in the U.S., both for financial stability purposes and to help unclog the monetary transmission mechanism. For most

U.S. banks, credit quality has continued to improve and banks are generally willing to lend. However, loan demand is perceived to be weak, and mortgage servicing is becoming unprofitable.

Some see inflation as likely to moderate from its current above-target levels, reflecting greater stability in commodity prices and a reversal of some factors affecting core inflation. Wages and salaries are growing slowly, although benefits are rising somewhat faster, and unit labor costs are flat. Inflation expectations remain well anchored, and measures of underlying inflation, such as trimmed mean inflation, remain around 2 percent. On the other hand, inflation has not yet fallen to the extent expected, reflecting the continued effects of high commodity prices, higher shelter costs, and perhaps some stickiness in core inflation. Uncertainty about the future course of inflation remains significant, given our inability to predict commodity prices and the difficulty of assessing slack, expectations, and other fundamental determinants of the inflation rate.

A number of people commented on the difficulty of assessing the effect of policy given, in particular, that some normal channels of transmission appear to be broken.

That is my summary. First, any comments or reactions? [No response] Let me now ask, as I have been doing this for quite a while, is this still helpful?

MR. FISHER. Yes.

VICE CHAIRMAN DUDLEY. Very much so.

CHAIRMAN BERNANKE. Okay. Good. Well, I'll continue to do it. It is good for me. It forces me to think about what everybody is saying. So my naptime was definitely constrained.

Let me just make a few comments of my own, building very much on the comments that we heard around the table. I don't have a great deal new to say. I think the most important development over the summer is that financial instability looks to be rearing its ugly head once again. We are not yet, of course, at the level of 2008, but some of the same adverse feedback loop between the economy and financial conditions looks to be in operation. Others have discussed the European situation at some length already. Like others, my presumption has been that the European leaders will do whatever is necessary to preserve the euro and, more broadly, the European project. Even for Germany, which has in some sense the most to lose in terms of transfers and bailouts, the benefits of the euro, the single market, and close political cooperation have always seemed to me to significantly outweigh the direct fiscal costs of saving Europe. That has been my view until now. I have been following, though, very closely developments in Europe, and as I mentioned, I had the opportunity to attend two extended meetings last week, one at the G-7 and one in Basel, and I have become more concerned about the ability of Europeans to manage this. Their political and coordination problems are extraordinarily difficult, and I can only say—and I know this will be in the transcript in five years—but I think there is some lack of imagination in the policymaking that is going on now. There seems to be a very myopic focus now on getting the July 21 agreements ratified, which is in itself a difficult political task, but I think everybody recognizes that the July 21 agreements, particularly the size of the EFSF, will not be sufficient. Meanwhile, time is growing short. The Greek situation is becoming worse.

There is a focus on financial conditions, but the European macroeconomy is also slowing. On the one hand, they have had—even more so than we do—the stress from financial conditions, tightening credit conditions, falling stock prices, weaker banks, and so on. But they are also very much in the mode of monetary and fiscal tightness; whatever view you might have about the longer term, in the short term, it seems likely to be a negative for their cyclical recovery. It seems clear that persuading taxpayers to approve transfers will be harder if unemployment is higher than if it is lower. On the politics, Jean-Claude Trichet has, on a number of occasions, drawn the comparison to the U.S. House vote on the TARP. Recall that there was a failed vote, the stock market expressed its displeasure, and the Congress went back and narrowly passed the TARP. He takes that as a point of argument, that Europe eventually will see the necessity of taking action and will do so, which may be true, but I reminded him that when this happened Lehman had already failed, and we already were seeing some of the implications of that for the financial system. Moreover, of course, the U.S. House is one house and one country, and in Europe we are dealing with 17 countries and a complex political environment.

Where we are is reminiscent of Henry Kissinger's comment that there is nobody to call in Europe. The only real effective Pan-European institution is the ECB, which has been doing, I think, on the whole, a pretty good job. It certainly has been helping to assure the short-term funding for banks, and Trichet himself has done a lot to try to develop a consensus in Europe and to keep reminding leaders of the importance of avoiding a financial calamity. In that respect, the fact that Trichet is retiring at the end of October is probably not a good thing. Mario Draghi is a very capable individual, but his influence and his room for operation will be no doubt more restricted than Trichet's was, if for no other reason than he is Italian and will have to demonstrate that he is comfortable with the German perspective. So it is a difficult situation. Of course, we are all monitoring it. There is not a lot that we can do directly other than to try to protect our own financial system, to try to help support dollar funding in Europe, and to think about what responses we would have in case of a blowup. Now, all of that being said, I think these are situations that we have to be very attentive to. But given the low likelihood that this will be completely and entirely resolved any time soon, we have to take into account the fact that we should expect ongoing financial stress and periodic alarms and scares even if the situation doesn't get out of control.

My own assessment is that the instability in financial markets, increase in spreads, decline in stock prices, increased stock volatility—all of those things taken together are at least one important reason why the bounceback in the second half that we were anticipating has been weaker than we had hoped. Not only have financial conditions affected household wealth and the cost of credit by increasing spreads, for example, but they have led to increased risk aversion, both in markets, I think, and in the real economy, and have affected sentiment as well. So part of the reason I think sentiment dropped so sharply in the summer was because of stock market swings that suggested that we were perhaps near a new crisis situation.

In thinking about both the economy and about monetary policy, we should take into account the fact that monetary policy is only one input into a broader array of financial conditions, which in turn affect the state of the economy. Financial conditions have deteriorated. If you look at financial conditions indexes, for example, they show considerable tightening. In thinking about the impact of our policy on the economy, the risk of inflation, and so on, we ought to take that broader financial stress into account. We also should take into account the fact that the financial stress we are seeing is not localized to the United States. It is, of course, global, and countries all over the world—suggested, for example, by Brazil's recent cut in its policy rate—are seeing slowdowns both directly through financial factors, including capital outflows now from some emerging markets, as well as from slowing export demand from the advanced economies. One of the consequences of that is that seems to make a surge in commodity prices much less likely if emerging markets are going to grow more slowly. I'd note that copper prices, for example, are now at the lowest level of the year, and the lead story in the

Financial Times this morning was about how firms are delaying their deliveries of metals because they are concerned about demand. The Dallas Fed has led the research effort in the System talking about how global conditions affect U.S. inflation. I think here is a very clear and transparent example. And, again, to the extent that financial conditions remain stressed, and that affects global growth, that in turn will feed back into commodity price pressures in the U.S. economy.

A lot has already been said about the real economy in the U.S. I do continue to be concerned that momentum is slipping away, and that we are nearing stall speed. You can take several different views of stall speed. As I have said before, I put some credence in these sorts of two-state models, which suggest that there is a tipping point. But even if you don't accept that, clearly, if you are growing very slowly, as Governor Tarullo and others noted, you are quite vulnerable to new shocks, which are always possible. The high-frequency data have been pretty weak. In the labor market, for example, we noted the very weak jobs report this most recent month, even adjusted for the strike. But beyond the weak payrolls, as Governor Raskin mentioned, average workweeks and total hours worked actually fell. UI claims have popped up again by about 30,000 or so. Expected labor market conditions in both the Michigan and Conference Board surveys have deteriorated quite significantly. So there is a sense that in the labor market conditions are worsening. In consumption, Governor Yellen talked about some of the data. Core retail sales were flat in August. Auto sales have been up, but that is presumably only a temporary adjustment. Consumer confidence measures and expectations of future financial conditions, and so on, as I and others have noted, are very much weaker. In the household and labor market sectors, I think most of the indicators are suggestive of slowing and increased risk of recession in the near term.

On the production and investment side, I think the data are somewhat more mixed. We have seen, for example, the auto recovery, and industrial production, even outside of autos, has held up reasonably well. Net exports in July were pretty strong. Orders and shipments have been reasonably strong, and we are still seeing manufacturing activity driven both by continued equipment and software investment and by exports abroad. That being said, the forward-looking and survey indicators here also are not terribly encouraging. For example, the Fed regional surveys, the ISM, and so on, have generally shown more pessimism about the future on the part of businesses. Another important indicator, architectural billings, has dropped quite sharply, which is indicative of future construction.

Putting that all together, I think that we have reason to be concerned that the financial stress we are seeing is going to, at a minimum, keep economic growth at a very slow pace. And it is difficult to see what is going to help, unless financial conditions miraculously normalize. In particular, I wouldn't expect any help from fiscal policy; fiscal drag will be increasing. And in terms of pessimism, uncertainty, et cetera, the fact that we have a presidential election year is not likely to create a lot of calm and agreement in Washington. The point is that it is difficult to see where the strength is going to come from. That being said, if the past few years have taught us anything, it is that humility in our forecasting is always in order. The economy does seem to still be growing, and a few better numbers could improve sentiment. But at this point, I think the relatively weak forecast is the right one.

I agree that inflation is too high, but I do think that it will moderate. My expectation is that commodity prices are unlikely to spike, and they will probably continue to be relatively soft. To the extent that we continue to have financial stresses, the dollar tends to benefit, which is not good for exports but is good for import prices. We discussed inflation expectations. Looking at the breakevens, I agree that a good part of the movement in the breakevens is due to idiosyncratic factors, but there are other indicators, such inflation in swaps, the Cleveland measure and things of that sort that suggest there has been some decline in inflation expectations. In any case, even in anticipation of possible action by the Fed, there obviously has not been any upside breakout in inflation expectations. There was also an interesting discussion around the table about the Phillips curve. I don't have a lot to add except to make just one very elementary observation, which was that the original Phillips curve in 1958 was a relationship between wages, not prices, and unemployment. I think it is pretty clear we have not yet seen any upward pressure on nominal wages, although, in full honesty, I have to agree that sometimes wages are not well measured and some of the effects can be lagged. But at least through that particular mechanism, there is not a lot of indication of price pressure.

To summarize the outlook, I think the weakness of the real side is a serious concern. We have ongoing financial stresses. We need to take that into account.

Let me make a couple of final comments on the discussion about the structure of the economy. Two observations. One that was made by a number of people is that the transmission channels for monetary policy have been in some cases attenuated, weakened, clogged, however you want to put it. I would note that that argument cuts both ways. I don't think it is literally the case that monetary policy is completely ineffective. I think we can see the effects on financial markets, which in turn must be affecting wealth, confidence, and some other determinants of spending and production. To the extent that transmission is weaker, that could be used to argue for more stimulus rather than less stimulus. But it does cut both ways.

Likewise, on the arguments about structural unemployment, it is true that as slack, as conventionally defined, declines, then the scope for monetary policy to have productive effects on real output is restricted. But remember, our story is that the increase in structural unemployment is coming, in part, because of prolonged cyclical conditions that are affecting the long-term unemployed and are affecting manufacturing capacity. In other words, there are hysteresis-type effects. To the extent that you think that those are important, that might, in fact, cut both ways. It might be an argument for being more, rather than less, aggressive in monetary policy.

Those are my remarks. I would be happy to take any questions or comments, and then we can go to the policy round. [No response] Okay. Seeing none, let me turn now to Seth Carpenter to hear about any further work that could be done on the IOER, and then maybe from Brian and Bill English on the MBS issue.

MR. ENGLISH. I am going to roll that into my briefing. I will be starting off with a couple of paragraphs on that. But maybe Seth can say a few words on the IOER.

MR. CARPENTER. You asked if we had scope to do any more work on the costs and benefits. I feel that on the benefits side, we have as much knowledge as we are going to get. The economic effects are likely small; we know the sign, but the magnitude is very small. So then I think that it is the political economy subsidy issue that policymakers obviously will have to weigh, how important that is to you.

On the cost side, though, it is possible that we could do a bit more work, by talking to banks and money funds, to try to make more precise the mechanisms where we think disruptions would be, how big they might be, and what the probabilities are. We could talk to banks; we also could talk to the Treasury to understand its constraints about the bill-auction mechanism, per se. I suspect we could do a little bit more to try to clarify the costs and get back to you with a memo. Does that seem like a reasonable plan?

CHAIRMAN BERNANKE. You know, you face the difficulty of talking to outsiders without tipping a likely move. You need to think about whether it's possible to disguise that discussion in the context of a broader set of issues about market function, for example.

MR. CARPENTER. One possibility is to use the fact that since the spring, market rates have fallen pretty significantly, and talk about that as a pattern and ask what sort of effects they have seen, and then ask them to extrapolate on that if that trend were to continue.

CHAIRMAN BERNANKE. That sounds like a useful idea. President Lacker.

MR. LACKER. I would just suggest to the staff that it might be useful to supplement that with a more microeconomically focused investigation into who holds what, and what relevant margins of substitution, for which investors, link the IOER, the market funds rate, GC collateral RP rates, and short-term Treasury rates. Obviously, there are players that can't participate in all markets. Pair-wise, you can figure out where some participate and define what those margins of substitution are. I think this would help us understand how changing IOER would pass through to six-month bill rates, for example, and other relevant borrowing rates. In addition, I think it would be broadly informative to monetary policy operations.

MR. CARPENTER. Yes. That seems exactly right. And to the extent that we are worried about disruptions, we could also think about the opposite side of the market, who the ultimate borrowers are and to what degree they would be able to substitute.

MR. LACKER. Right, exactly. Same thing on the other side.

MR. CARPENTER. Absolutely.

CHAIRMAN BERNANKE. Okay. Thank you. Bill.

MR. ENGLISH.[4] I will be referring to the handout labeled "Material for FOMC Briefing on Monetary Policy Alternatives," which contains the policy alternatives as well as the associated draft directives. Changes in the language since the Tealbook

[4] The materials used by Mr. English are appended to this transcript (appendix 4).

are shown in blue. We have made a couple of minor wording changes in paragraphs A(5) and B(3) to clarify what is intended.

In addition, as several of you suggested yesterday, we have included the option of reinvesting the principal payments from agency debt and MBS in agency MBS rather than longer-term Treasury securities in alternatives A and B. To make navigating the statement a bit easier, we put the material on reinvestment into separate paragraphs—A(6) and B(4). We would anticipate two effects from such a change in reinvestment strategy. First, because the MBS would have a shorter expected duration than the longer-term Treasury securities that were included in the original formulation of the maturity extension program, reinvesting in MBS would likely reduce the effect of the program on longer-term Treasury yields by a few basis points. Second, shifting reinvestments into MBS should put downward pressure on the spread between MBS yields and Treasury yields. The size of this effect is hard to assess, but we think it could be on the order of 10 to 20 basis points. As a result, the maturity extension program with this alternative reinvestment strategy would likely lead to somewhat smaller declines in Treasury yields, but larger declines in MBS yields, than under the original reinvestment strategy.

With regard to the choice between these reinvestment options, as was suggested yesterday, some of you may see a benefit to using SOMA reinvestments to support the mortgage market in light of the substantial ongoing weakness in the housing sector and the recent widening of the spread between MBS and Treasury yields. Indeed, the August 2010 minutes noted that, while reinvesting in Treasury securities was seen as preferable given the market conditions at that time, reinvesting in MBS might become desirable if conditions were to change. Moreover, some of you may fear that, without this change, the proposed portfolio actions would bring SOMA holdings of longer-term Treasury securities to very high levels, risking an adverse effect on market functioning. However, some participants may prefer to continue to reinvest the principal payments on agency securities in Treasury securities in order to avoid being seen as allocating credit to a particular sector of the economy. Members may also want to avoid lengthening the period of time that will likely be required to return to a Treasury-only portfolio once exit begins.

Turning first to alternative B, on page 4, the Committee may view the information received during the intermeeting period as pointing to an even more gradual pickup in economic activity over the medium run than was expected at the time of the August meeting. Moreover, the sharp drop in consumer confidence and business sentiment in recent months and the increased strains in global financial markets may be seen as posing substantial downside risks to the now-more-somber economic outlook. Participants may judge that, with the economy operating well below its potential and energy and commodity prices generally down from earlier peaks, inflation is likely to subside to levels at or below those judged to be most consistent with the dual mandate. Accordingly, the Committee might conclude that additional policy stimulus is appropriate.

Yesterday's presentations focused on four options for providing additional accommodation: another round of large-scale asset purchases, an extension of the average maturity of the SOMA portfolio without an expansion of the balance sheet, firmer forward guidance, and a cut in the rate of interest paid on reserve balances. Alternative B incorporates the maturity extension program; it also contemplates a possible reduction in the interest rate paid on reserve balances, but with more staff work on that issue on order, I assume that you will want to delay a decision until the November meeting. Participants might view a maturity extension program as attractive both because it should put downward pressure on longer-term interest rates and make broader financial conditions more supportive of the recovery, and because it does not have some of the drawbacks that the other options might be seen as having. For example, a new large-scale asset purchase program would greatly increase the size of the Federal Reserve's balance sheet and the supply of reserve balances in the near-term, and so may be more likely to raise concerns among the public regarding possible inflationary consequences. A significant change in the forward guidance might be viewed as an interesting option, but premature at this point: Many of you suggested yesterday that you preferred to consider such changes in the context of a broader discussion of the Committee's policy framework or believe that any change in forward guidance that involves explicit numerical values for the mandate-consistent rates of inflation and unemployment over the longer-term will require careful and extensive explanation to the public, as well as the Administration and the Congress.

The first paragraph of the statement for alternative B would be updated to reflect the recent data. The second paragraph would add a reference to "strains in global financial markets" as a downside risk. The third paragraph, of which there are two versions, would describe the new maturity extension program. The first version refers to a total program size of $400 billion to be implemented by the end of next June, following the general form of the announcement of the second large-scale asset purchase program last November. The second version of the paragraph refers to a $45 billion monthly pace of transactions; participants might view this wording as giving the Committee more flexibility in implementing the program. In both versions, the Committee would note that it will regularly review the pace of transactions and the overall size of the program and make adjustments as needed to best foster maximum employment and price stability. The next paragraph would indicate how repayments of principal on agency debt and mortgage-backed securities are to be reinvested—either into longer-term Treasury securities or agency mortgage-backed securities.

In the fifth paragraph, the statement would repeat the forward guidance from the August statement. Although the economic outlook has deteriorated since August, participants may choose to retain the reference to "exceptionally low levels of the federal funds rate at least through mid-2013" because they think that changing the date at each meeting could undermine the usefulness of the approach. That said, presumably a large enough cumulative change in the outlook would require an adjustment to the date.

The statement would end by indicating that the Committee will employ its tools as appropriate. That part of the statement could also reiterate that the Committee discussed the range of tools available to promote a stronger economic recovery in a context of price stability. That additional language would likely be read by the public as suggesting that the Committee might well provide additional accommodation at its next meeting.

A statement along the lines of alternative B would be roughly consistent with the market expectations captured by the Desk's survey of primary dealers last week and would likely have only modest further effects on asset prices—with interest rates declining a little, stock prices edging higher, and the foreign exchange value of the dollar depreciating. These effects would probably be somewhat larger if the bracketed language in the final paragraph was included in the statement. And as noted earlier, if the statement indicated that agency securities would be reinvested in MBS, then the effects on Treasury rates would be a bit smaller while those on MBS yields would be somewhat larger.

Alternative A, page 2, would be appropriate if the sequence of downward revisions to the outlook since the start of the year, coupled with the substantial downside risks to economic growth and the very high costs of any renewed recession, have led the Committee to conclude that more substantial steps to provide support to the recovery were called for. Participants might believe that a new large-scale asset purchase program would be more likely to spur economic growth than a maturity extension program, especially if they thought that balance sheet actions operated importantly through effects on bank reserves. In addition, they may feel that firmer forward guidance would be helpful by signaling that the Committee will keep rates lower for longer than the public already anticipated. The primary dealer survey suggested that market participants see the Committee first moving to raise the funds rate when the unemployment rate is near 8 percent and the inflation rate is around 2 percent. Thus, by suggesting that the current target range for the federal funds rate would be retained as long as the unemployment rate is above 7 percent and inflation is projected to remain below 2½ percent over the medium run, as in alternative A, the Committee may be able to push back significantly public expectations of the timing of tightening.

The first and third paragraphs of the statement for alternative A would be similar to the first two paragraphs of alternative B. Paragraph 4 would provide the stronger forward guidance with numerical thresholds for unemployment and inflation as well as an indication that the Committee expects to keep the funds rate at its current very low level until at least mid-2014, a year longer than in the August statement. To avoid the misperception that the numerical thresholds for policy action are the Committee's longer-term objectives, paragraph 2 would provide explicit quantitative information about those objectives. Paragraph 5 would give the parameters for the new large-scale asset purchase program under which the Federal Reserve would acquire $1 trillion in longer-term Treasury securities by the end of the third quarter of 2012. The statement would then indicate the plans for reinvestments and end by noting that the Committee was prepared to employ its policy tools as appropriate to promote a stronger economic recovery in a context of price stability.

Market participants would be quite surprised by the combination of actions under alternative A. Longer-term yields would likely drop sharply, although the decline might be tempered if the unexpectedly large easing move boosted inflation expectations. Equity prices would probably rise, and the foreign exchange value of the dollar fall.

Alternative C, page 6, would be appropriate if the Committee believed that monetary policy actions taken over the past year had already put in place sufficient support for the economic recovery and anticipated that additional accommodation was likely to boost inflation rather than spur additional economic growth. In particular, with core inflation having trended higher since the start of the year, and headline inflation over the past 12 months well above its levels of a year ago, some participants may think that the level of potential output has declined sufficiently relative to its pre-crisis trend that additional accommodation is likely to raise inflation further and so would risk unanchoring inflation expectations. Participants also may prefer to wait for more information on the likely rebound from the economic weakness in the first half of the year before committing to additional actions.

The statement under alternative C would be quite close to that issued following the August meeting. The first paragraph would be updated to reflect the recent data; the second paragraph would recognize the downside risks to the outlook but emphasize that the Committee continues to expect growth to pick up. The final paragraph would repeat the forward guidance from August. However, the final sentence of the statement would suggest that additional policy easing was not particularly likely and that the Committee stood ready to tighten policy before mid-2013.

The adoption of alternative C would greatly surprise investors and would likely have outsized effects in financial markets.

The draft directives for the three alternatives are presented on pages 8 through 10 of your handout. Thank you, Mr. Chairman. That completes my prepared remarks.

CHAIRMAN BERNANKE. Thank you, Bill. Any questions? President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I wanted to make a comment about the use of the date as opposed to my suggestion yesterday of using an announcement of expected duration of our stay at the zero lower bound. Right now, if the Committee were to stay with the mid-2013 date, in some sense the default is reducing accommodation from that, because you are moving closer to the time when that date is going to take place. So the default stance is that you are reducing accommodation. That is very different from when you choose to leave the fed funds rate the same. In that case, you are not reducing accommodation, you are keeping accommodation the same. If, instead, the Committee had said in August that they expected that conditions would warrant keeping the fed funds rate exceptionally low for two years, you could leave that statement in place, roll forward six weeks, and you would have the same level of accommodation in place.

Now, I have talked offline to some of you about this, and I agree with the general sentiment that we don’t want to be making too many changes at one time. I’ll take that as read. But I do think that, going forward, we are going to spend a long time at the zero lower bound. It is worthwhile to make this change—away from a date to a duration—to get away from the automatic tightening that is built into this.

MR. ENGLISH. To respond to that for a second, if everything played out exactly as the Committee expected, then that duration would have to be reduced by six weeks at every meeting. Right?

MR. KOCHERLAKOTA. That’s correct.

MR. ENGLISH. It’s a tradeoff. In which case are you going to be changing things?

MR. KOCHERLAKOTA. But that’s how raising the rate usually works, Bill, right? If you look at a usual kind of monetary policy rule, you will set the rate according to current conditions. But if you are below trend and there is mean reversion, you are expecting conditions to improve, and as they do, you raise the rate accordingly. Even if you are on your forecast path under the usual fed funds rate in normal conditions, we would be raising the rate along that path, even if things just played out according to what we expected. So that’s right. I’m trying to design a system at the zero lower bound that will work the way our fed funds rate movement will usually work. I will talk more about this in my policy statement, where I think our not using this over the past 10 months has actually had a cost.

CHAIRMAN BERNANKE. I think the one thing everybody agrees on is that the mid-2013 language needs further elaboration. And we will continue to work on that.

MR. KOCHERLAKOTA. Right, sure.

CHAIRMAN BERNANKE. That is certainly a useful suggestion. President Fisher.

MR. FISHER. I wanted to ask simply a point of information. Is it true to say inflation has moderated since earlier in the year? On a year-over-year basis? Now, we expect it to moderate, and the rest of the sentence is correct. But is that correct? I want to check.

MR. ENGLISH. I guess what I was looking at in writing that down was things like CPI inflation. The six-month change was up around 5 percent in the spring, and it's around 3.6 percent in the latest numbers. Three-month changes were up around 6 percent in the spring, and now are around 2.6. So those measures have come down. The PCE numbers look about the same.

MR. FISHER. I was looking at the 12-month for core and the trimmed mean, et cetera.

CHAIRMAN BERNANKE. The 12-month numbers have not come down mechanically because some of the deflation-like numbers are being left out.

MR. FISHER. I would just be careful about that. That's our expectation, but I don't think that statement is correct because it depends on what time interval you measure, 12 months, 6 months. I would moderate it somehow were I to support alternative B.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I was going to support that. It has the look of cherry-picking the statistic you're looking at. We don't want to get caught shifting which one we are focusing on or appealing to from meeting to meeting.

CHAIRMAN BERNANKE. Well, except that in the August statement, which is the first page of the handout, we said, "More recently, inflation has moderated as prices of energy and some commodities have declined from their earlier peaks."

MR. LACKER. We set the precedent there to focus on less than 12 months of inflation, right? "Are we going to stick to that?" is the question we need to ask ourselves.

CHAIRMAN BERNANKE. It's a fair question. We could say inflation appears to be moderating, which might be better given the commodity price behavior. Let's put that down as something for consideration if anyone wants to advocate that. President Evans.

MR. EVANS. I could be wrong, but this seems to be a relatively new development in our statement, right? Because we used to use the term "underlying inflation," and underlying inflation had a connotation of a little more ambiguity for good or bad, right? I mean, we have all cherry-picked at times, "I've been saying 12 months. Now I'm going to roll into the 3-month window because that's what I think is more indicative of our pressures." And when we took out the underlying measure concept, we bought into this other problem, which is that we really ought to be talking about inflation over the medium term, with the emphasis on forecasting. We ought to think more carefully about how to deal with this. I agree with that.

CHAIRMAN BERNANKE. Except that one suggestion that the Vice Chairman and others have championed is that the first paragraph ought to be sort of a retrospective of what we see has happened and that our forecast should be in a different part of the statement.

MR. EVANS. But "underlying inflation" is helpful for that, and it's also more related.

CHAIRMAN BERNANKE. I don't want to go through that whole discussion again, but a very similar concept is "medium-term projections of inflation," which would be equivalent to "underlying."

MR. EVANS. Yes.

CHAIRMAN BERNANKE. I'm sorry. President Pianalto, did I skip you? Did you have a question?

MS. PIANALTO. I have a question, but not on this issue.

CHAIRMAN BERNANKE. Okay. Go ahead.

MS. PIANALTO. Bill, in your comments about reinvesting our MBS into Treasuries versus reinvestment into MBS, you made a comment that it reduces the effect of the program. I know we only put this possibility on the table yesterday, so you didn't have time to think about it further or talk to anybody, but what kind of market reaction will we get?

MR. ENGLISH. I'll look to Brian Sack in a second, and he may have a different sense, but mine is that markets don't know exactly how big the maturity extension program is going to be. They don't know exactly how we would be handling reinvestments and so on. My guess is they probably expect we would be reinvesting agency securities into longer-term Treasuries as well, but nonetheless, taken together, the package will look broadly similar to what markets are expecting. I don't think there will be a big disappointment. They will, I think, be surprised if the Committee decides to reinvest into MBS. That's something that I haven't been reading a lot about, and as I said in my remarks, we do think that would probably have some effect in the MBS–Treasury spread. Brian, do you have thoughts?

MR. SACK. I agree. The major surprise will clearly be on the MBS side. So I think you would see a sharp reaction of the MBS spreads to the announcement. In terms of how Treasury yields would respond, as Bill suggested in his briefing, the effect would be modestly less than if the reinvestments went into longer-term Treasuries, but my guess is that, relative to market expectations, the maturity extension part of it will essentially meet expectations and won't prompt much of a backup in rates. I think that the program is a little bit bigger than most people assume, at $400 billion, and as I will talk about later, if you went with this proposal, we'd actually have a maturity distribution that's pretty skewed to the long end. Those two things suggest that the maturity extension piece will meet expectations on the Treasury side in terms of preventing a backup in rates.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Could either of you continue on? What are the negatives of reinvesting the roll-offs in MBS, in your opinion? Bill?

MR. ENGLISH. As I said in my remarks, I think there are two. One is the Committee might be seen as allocating credit, and you've been nervous about that in the past.

MR. FISHER. We went through that before.

MR. ENGLISH. And the other is that when it comes time to exit, your portfolio of agency securities will be larger, and therefore the sales of them will take longer or will have to be more rapid. There will be some adjustment to be made at the end to unwind this and get back to a Treasury-only portfolio, which the Committee has been absolutely clear it wants to get to.

MR. FISHER. So we have a pretty clear concept of what the costs are. We also have a pretty clear concept of what the benefits would be. If that spread is widened, we do believe, as you just summarized, that it will impact mortgage-backed rates and help decrease that spread over 10-year Treasuries. Is that a correct summary?

MR. SACK. That's correct.

MR. FISHER. Thank you.

MR. SACK. A few more things to note. Past FOMC communications have left this door open, as Bill indicated in his briefing. At the same time, in terms of the longer-run strategy, the Committee has emphasized the move to a Treasury-only portfolio. So I think there will be some discussion of that and perhaps some confusion. The other thing is that there are broader housing initiatives in play at the moment, and don't be surprised if you took this step to see a discussion of this step in terms of how it interacts with those other initiatives.

MR. FISHER. If I may, Mr. Chairman, would it be considered, in your opinion, counterproductive to those other initiatives?

MR. SACK. No. In terms of effects, I think it would be very productive. I'm just making a few points about how this will be discussed and what the market commentary will be.

MR. FISHER. Yes, sir.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. To follow up on the mortgage-backed securities questions, if by reinvesting we're putting pressure on those rates, we're also putting pressure on Treasury rates that are often references for mortgages. Is it possible that our prepayment assumptions need to be adjusted so that the actual duration of the mortgage-backed securities portfolio will somewhat soften and, therefore we have a two-step duration concern? One is that we are changing our mix, and the second is we have to rethink what the prepayment assumption is. Is that possible, Brian?

MR. SACK. Yes. We have prepayment projections where we expect about $200 billion of principal payments on agency debt and agency MBS by the end of June of next year. That would be the amount under our current projections that we would be switching into mortgage purchases. If those purchases pushed down rates by more than we had assumed in the Tealbook, that number could be higher and result in even more reinvestment in MBS. I don't think the size of the rate effects we're talking about will affect that too much. Another thing to note is that, at $200 billion, we're actually already pretty high relative to prepayment models produced by Wall Street. So there's a lot of uncertainty around that $200 billion number, and my guess is, under the current rate structure, the risks are toward being smaller than that than being bigger.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I have a couple of questions about the mortgage-backed securities thing. First, for the record, I think I know the answer to this question. In your staff presentation yesterday, I didn't recall any mention of dysfunction or dislocation in the mortgage-backed securities market. I take it you don't have any to report on, or if there are, I'd appreciate hearing that.

MR. SACK. No. We don't think there is dysfunction in the mortgage-backed securities market at this time.

MR. LACKER. So the staff's view is that, compared with not doing the MBS reinvestment, this would likely lower the MBS spread by some measure?

MR. ENGLISH. Likely.

MR. LACKER. So doesn't this mean that Treasury rates would be higher than they otherwise would be because we're taking less Treasury out of the market?

MR. ENGLISH. That's what I tried to say in my remarks, yes.

MR. LACKER. If we're able to reduce the MBS spread, there'd be some other borrowers in the economy that would face higher cost than otherwise, right?

Does the staff have a sense of the differential effect on spending? Is lowering mortgage rates going to result in enough spending to counteract the reduced spending on the part of the people for whom borrowing costs are going to go up because of this?

MR. ENGLISH. As I said in my remarks, the reason to do this would be the sense that the housing market is in particularly poor shape, and so providing assistance there is likely to be, at the margin, more useful, but I don't have any numerical exercises I can point to on that. We had about 18 hours to think about this. [Laughter]

MR. SACK. And we do think the upward pressure on Treasury yields relative to the other proposal will be limited. I was trying to explain in the answer to President Pianalto's question that even at $400 billion without the reinvestment piece added on, the maturity extension program is still sizable relative to market expectations and is probably skewed more toward longer-term securities than most market participants expect. I think those factors will help limit any upward pressure we see on Treasury yields. It is hard to judge exactly what is priced in. We should appreciate that there is some uncertainty about these market responses, particularly about how far out on the curve we're expected to go on the maturity extension program. In general, it's a fair assumption that the backup in Treasury yields will be quite modest.

MR. ENGLISH. I agree there isn't dysfunction in the MBS market, but the MBS–Treasury spread is pretty wide. It's gone up about 50 basis points in recent months. We think that's because with rates very low, the expected duration is probably longer than usual, so investors are a little chary of buying the MBS, and there's a lot of uncertainty about the duration. That spread has widened out, and this would be a way of taking a step to try to unwind some of that widening.

CHAIRMAN BERNANKE. Is some of it due to net supply–demand balance? Is there a change in the flows, Brian?

MR. SACK. Some of it is due to at least concerns about supply related to the discussion about government refinance programs. The point is that those programs could cause a large amount of refinancing of the higher coupon into the production coupon, and I think that is putting some upward pressure on the production coupon spread.

MR. LACKER. Bill, on the sources of uncertainty, do you think you know better than the market about those things?

MR. ENGLISH. No. It's simply risk that we could take out of the market.

MR. LACKER. It's real risk. I mean, it's risk to us, too.

MR. ENGLISH. So it's duration risk.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. A two-hander from the Vice Chairman.

VICE CHAIRMAN DUDLEY. What I hear the staff saying is that the effect on Treasury yields is quite small because, one, you're not moving that much money away from the Treasury market and, two, the program is still going to be as big or bigger than expectations. In addition, it will also have a pretty sizable effect on the mortgage basis because it is unanticipated. It's going to change the whole risk–reward perception of private investors in the mortgage market because they are going to realize that if the mortgage basis winds out dramatically, the Fed is now more likely to intervene, and that's going to change the dynamics in the mortgage market. Now, why would you do it in terms of who gets the benefit? Well, I think the marginal propensity to consumer of people who are refinancing is probably pretty high relative to other participants in the economy who might be affected by that couple of basis point backup in

Treasury bills. And, too, there's an ancillary, broader benefit to the extent that you can make housing markets slightly less distressed. While the benefits are obviously hard to quantify, if the housing sector is in a little bit better shape, that has a whole other set of benefits.

MR. LACKER. If I could respond, the stress in the housing market isn't among people who are going to be capable of refinancing at a slightly lower rate. These are people that have good credit now. The distress is somewhere else.

VICE CHAIRMAN DUDLEY. Assume you have a demand curve for mortgage rates, the demand will be slightly stronger for housing than it was before if mortgage rates are a little bit lower, and I think that has consequences for households.

CHAIRMAN BERNANKE. Can we save the substance for the go-round? [Laughter]

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. I have an empirical question. Pick your number of what you think this would do to mortgage rates or the mortgage spread—10, 15, 20 basis points. The question I want to ask is: Based on what's happened over the last three years, what's the empirical evidence about how that will change housing starts, sales of existing homes, or house prices? What's the empirical evidence we have as to the effect that that will have on the housing market measured by the things that we are interested in? Do we have any estimate for that? Maybe that's a question for Dave.

MR. REIFSCHNEIDER. There are two answers to that. One, if you take our models estimated over longer periods, housing is a pretty interest-sensitive sector. Second, over longer periods, if you look at the response of house prices to interest rates, there's not much evidence of a response. Now, looking at the past few years, it is very difficult to tease out the interest elasticity. It could be that the interest elasticity is extremely low at the moment, partly because of the difficulties of people qualifying for mortgages with tighter standards and the smaller pool of people who have decent credit scores. However, the other way of looking at it is that there's a powerful interest-rate effect in play at the moment, but it's being swamped by concerns about continuing falling house prices and that sort of thing. The housing market has certainly been behaving very peculiarly in the last few years. Everyone agrees on that. None of the models can explain what's going on. Is it decreased interest sensitivity? Could be. Is it a very powerful dynamic on expected house price changes and things like that? Could be. Is it tighter underwriting standards and credit conditions that are independent of the interest sensitivity? Could be. I think some combination of those is at work, and I can't untangle them.

MR. PLOSSER. So it's likely that the players who are going to be able to take advantage of this maybe won't be the homeowners and the homebuyers. It's going to be the traders who are going to be trying to arbitrage whatever they think we're going to do between Treasuries and MBS and other things, and whether or not that's going to have the effect that we want on the real economy is questionable.

MR. ENGLISH. That seems too strong to me. I think it will contribute to lower mortgage rates and more refinancing, and that will matter. Who's doing the refinancing and exactly which households are benefiting is subject to question.

CHAIRMAN BERNANKE. Any other questions? President Lacker.

MR. LACKER. I just point out that if the Treasury yield difference is little or none, then we have this miraculous ability to reduce spreads everywhere, sector by sector, with no cost to anybody in the economy, and that can't be the case.

CHAIRMAN BERNANKE. It could be the case. Why can't it be the case? Suppose we could buy corporate bonds in large amounts. We would be effectively, through money creation, financing credit extension. We'd be a new source of credit extension. I'm not saying that's a good way to allocate resources, but it would certainly affect spreads.

MR. LACKER. If you look at budget constraints and resource constraints, there's a certain amount of savings going on, and it's getting channeled to a certain amount of resources that are going to a certain amount of borrowers. From that point of view, if we increase the resources going to some borrowers, it has got to come from somebody.

CHAIRMAN BERNANKE. That's only with a total output being given. This is the basic error of the crowding out arguments that you've been hearing, which is that holding output constant, if you increase deficits, you're going to reduce investment. That's not true if output is, in turn, endogenous and responds to fiscal conditions. If output responds to monetary policy stimulus, that's going to affect income and saving.

I feel like we pretty much covered the issue here. [Laughter] Any further questions? [No response] If not, why don't we just go now into the go-round? And we'll start at the far west of the country with President Williams.

MR. WILLIAMS. Thank you, Mr. Chairman. I support alternative B. As I mentioned yesterday, maturity extension is an effective policy tool that can help lower longer-term interest rates. I was going to comment on lowering the interest rate on reserves, but I understand we will get more memos on that between now and the next meeting. We will look forward to that memo and that discussion next time. I supported pursuing this particular policy of maturity extension at the last meeting, and I think the case for taking this step is, if anything, even stronger today, given the deterioration in the economy and even greater downside risks. I also support reinvesting principal payments from agency securities in agency MBS for the reasons discussed yesterday, also summarized by Bill English. Specifically, I see this as lowering spreads on MBS, and I also think, importantly, it creates space for further Treasury purchases. As Vice Chairman Dudley said, there could be a very powerful signaling effect of this as well. This is the right step at this time.

Let me say a word about the appropriate stance of monetary policy, and how that has changed since last November. Governor Yellen made these very same points yesterday, so I will try to be very brief. Basically, we looked at where the forecast was in the November Tealbook from last year and compared that with the forecast as of the current Tealbook. Regarding monetary policy, I think it makes sense to be forward-looking and consider the forecasts, as opposed to where we are currently.

The November 2010 Tealbook forecast for the unemployment rate at the end of 2012 was 7.9 percent. Today it is 8.7 percent. And the Tealbook forecast for core PCE inflation next year has climbed from 1 percent to 1.5 percent, an increase of ½ percentage point. Obviously, there are factors telling you to have less monetary accommodation, and some saying that you should have more monetary accommodation, relative to our forecast from last November. But when I plug these forecast changes into a Taylor 1999 policy rule with coefficients of 1½ on inflation and minus 2 on the unemployment gap, it implies a reduction in the funds rate of 85 basis points. Based on this simple metric—which only incorporates the information about the change of our modal forecast—the change in the outlook argues for significantly more policy easing than we thought appropriate back in November based on the outlook that we had at that time. I think alternative B takes us a step in that direction.

Finally, I would like to comment on the need for more contingency planning. I completely agree with President Fisher's remarks yesterday, and also the remarks of others who followed on yours. I am very concerned that economic conditions could take a serious turn for the worse, especially if the situation in Europe spins out of control. We need to think carefully now about what we will do if the worst-case scenario materializes. In that event, we would likely be employing unconventional policies and operating at the zero lower bound for many, many years, much as Japan has. In contemplating such a situation, I am sympathetic to President Bullard's point that we need to get away from one-shot, fixed-duration policies that we have used in the past, and move instead to a more systematic framework. In particular, we should plan now about how we would conduct and communicate asset purchase programs that are more open-ended and adaptable to changed circumstances. As I mentioned yesterday, I think we will clearly need to broaden the set of securities that we purchase to include mortgage-backed securities. Furthermore, I am increasingly worried that we could find ourselves in a situation where the yield curve is essentially flat at very low rates, and the economic situation is still not satisfactory. I think the traditional LSAP and communication policies may not be sufficient to achieve our macroeconomic goals. If you look at Japan and Switzerland, they both currently have 10-year government rates of around 1 percent. If we find ourselves in a situation like that—even after we have used all of our LSAP and communication policies—we really do need to think seriously about outside-the-box approaches to monetary policy, including the use of emergency-type programs or other approaches. We need to be doing that planning now rather than later. Thank you.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. In my comments, I will generally support alternative B and talk about alternative B. Let me start with paragraph 1, the last sentence. I, too, thought that the phrase, "Inflation has moderated since earlier in the year as prices of energy and some commodities have declined from their peaks," was a little bit strong. I think it has been an improvement to eliminate the confusing references to underlying inflation, and I would take it that our basic measure of inflation, when we say "inflation," is PCE inflation measured from a year ago. I'm looking at page 23 of the data sheets here, which has all our data on consumer prices. This is what is presented to the Committee. There are six charts here, with a lot of upward sloping charts in 2011, so I think it might be a little bit strong to say this. I have a suggestion that I think more accurately will reflect your view, Mr. Chairman, which is that instead of using "Inflation has moderated since earlier in the year," we could say "Inflation is expected to moderate as prices of energy and some commodities have declined."

The new first part of the very last sentence in paragraph 1 would be "Inflation is expected to moderate." It would mean that, indeed, we think headline inflation is going to come down. Yes, it is kind of high right now if you look at these charts, but we think it is going to come down. That very much reflects the staff view and the view that you expressed earlier in your comments.

CHAIRMAN BERNANKE. Could I just explore that for just a second? The only objection is that we also say in the next paragraph, "The Committee anticipates inflation will settle in coming quarters," which is a little bit repetitive. What about something like the earlier suggestion, "Inflation appears to be moderating;" is that better? It's more descriptive, rather than pure forecast.

MR. BULLARD. There are an awful lot of upward moving lines here. It is true that these three-month averages show little blips down, but that might be a little bit of a thin reed to hang your hat on.

CHAIRMAN BERNANKE. So, it "appears"—what is your view?

MR. BULLARD. "Appears to have moderated."

CHAIRMAN BERNANKE. "Inflation appears to be moderating." Does that help?

MR. BULLARD. What is wrong with just "expected to moderate"? I think that's fine.

VICE CHAIRMAN DUDLEY. My critique of that is, I think it is very important that the first paragraph be a statement of what we see, not a view about our forecast or our expectations. It should be a description of our view of reality. When you say "is expected to," then you are getting into something more forward-looking, and I am not in favor of that.

CHAIRMAN BERNANKE. Let's see. President Kocherlakota.

MR. KOCHERLAKOTA. One suggestion I would have is that the Committee actually specify exactly what inflation rates they had in mind when they say that inflation rates are moderating. I think it is certainly true of the three-month frequency. Maybe it is also true of the six-month frequency. If the Committee has a particular frequency in mind, then you can make reference to that.

MR. BULLARD. I don't mind the story that it is expected to moderate. I just don't want people to look at this picture and say, "Well, what is the Committee thinking?" PCE inflation measured from a year ago is up close to 3 percent, and core inflation has also gone up quite a bit and is still on an upward slope. Just say "is expected to moderate."

CHAIRMAN BERNANKE. That's your proposal, and others can respond as we go around. Please continue.

MR. BULLARD. Moving on—. In paragraph 3, I want to make a few remarks on the attitude of the Committee since the onset of near-zero policy rates. As I said many times, I do not think it is desirable or necessary to have large, fixed total amounts in the statement. The Committee, in the past, would never contemplate announcing a bundle of interest rate moves to be executed over a fixed time period. Instead, the Committee would make an interest rate move at a given meeting and offer a suggestion, a bias, or a continuation value about future moves, but reserving the right to review incoming data. This type of policy was later rationalized in a slew of economic research as being close to optimal in certain types of macroeconomic models. Even though that sort of policy was considered close to optimal, in the near-zero rate era we have thrown this idea out the window, and I think this is a mistake.

As many of you know, there is a substantial amount of stimulus fatigue in the U.S., which is feeding into unwarranted and unnecessary criticism of the Fed, which is in turn harming our credibility and our ability to carry out effective policy. What is happening, in my view, is that those less familiar with the intricacies of central banking simply seize on the $400 billion number and run with it. But this grand misunderstanding is completely unnecessary. The financial market participants who understand our duration program will have no difficulty discerning the Committee's intent and forming expectations appropriately. Any announcement effect will actually be exactly the same size because the rational expectations of markets will be exactly the same. I am arguing in favor of 3′, then, instead of in favor of 3, and solely on the basis that you get rid of the big number in this statement.

Paragraph 4 is about the MBS. I am going to counsel against this for today. I'm not saying forever, but just for today. I do not think that the Committee has seen a very substantial analysis on this question, in particular, on what is the source of the increased spread in MBS markets and what would be our expected effects now going back into MBS markets after having once left them. I think we could get some more analysis on this—that would be one thing to do. I see this also as running against the Committee's widely agreed goal of returning to an all-Treasuries portfolio—which was part of the earlier discussion about MBS versus Treasuries—and this would be going in the opposite direction. I would want to be careful that we are thinking about that before we make a commitment to do so. I counsel that we watch developments here carefully and consider this at a future meeting.

I do also think that regarding the heuristic argument that Vice Chairman Dudley just gave on refinancing, there are going to be distributional effects that are important. The people who don’t have high income, are unemployed, or are under water in their house are not going to be able to take advantage of a low mortgage rate. That is already happening today, and that will continue to happen, so you are not really helping that group of people. You are helping the relatively high-income people whose value of their house hasn’t fallen as substantially. It is not clear that is exactly the policy we want to pursue, although I would be open to hearing more about it. But for today, I think this needs a little more analysis. This is not an issue that has to be decided in the next 24 hours. We could probably wait a little bit on this.

Let me talk just a little bit about a few more issues, and then I will be done. On the risk to alternative B, I do think there are some risks in this announcement that will come out today. Longer-term rates could as easily rise as fall in the coming months, coming weeks even. Given the volatility in markets and the fact that yields are exceptionally low right now, I think this will probably stimulate an intense debate, about whether this is an effective program or not. We have to be prepared to carry that debate, and a good way to do that is to talk about the effects of the program in the run-up to this announcement, not in the aftermath of it. I also agree with President Williams that if the economy is as weak as many here think it may be, we may soon be forced to take more-aggressive action. I’m not exactly sure that we are really ready to do that, but we probably need even more intense contingency planning than we have done even at this meeting.

Let me comment on option A. I do not think these communications options are ready for prime time based on the discussion yesterday. However, I am encouraged by several outcomes of that discussion. I think that we may be able to use the SEP to help better communicate the Committee's intent going forward, and we may be able to revise and expand that process. That would be a great development. We should go ahead and adopt a flexible inflation-targeting program like the ones used in some of the leading countries on this issue. Some of the Nordic countries are good models, but there may be others. I think that would be a perfectly fine thing to do. We could adopt many of the practices that they have already implemented and tested. As the Chairman noted, we are essentially in a flexible inflation-targeting regime right now, but it is a bit of a clandestine one. We may as well get the full benefits of going ahead with the program. Thanks very much.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Real growth has obviously been much weaker than we had hoped for, or that we view as desirable. But as I said yesterday, I think the inflation outlook is central to our policy decision today. A year ago inflation was running around 1 percent, and it looked as if it had the potential to continue falling. That made it very attractive to provide more stimulus to aid the real economy, and if that also increased inflation, it was for the good. I understand the rationale for intervention a year ago. But now inflation is 2.9 percent year over year, and 2.1 percent over the last three months. Core inflation is 2¼ percent over the last three months and the three months before that, and survey measures of inflation are ticking up. I understand what is going on with TIPS yields, but it is a mixed picture on inflation expectations.

As I said yesterday, the balance of evidence suggests to me that our asset purchases initiated last November contributed to the rise in inflation, but had little or no effect on real growth. So my sense is that the alternatives—A or B—to the extent that they have material economic effects, are going to push up inflation and do very little for economic growth. And with inflation running above what everyone articulates as their preferred rate, I do not think we now want or need more monetary stimulus. Accordingly, I support alternative C.

I understand how raising inflation would reduce real rates and provide stimulus for the real economy. But I do not believe we could publicly acknowledge allowing inflation to rise and still keep inflation expectations from rising even further from time to time after that. I do not believe we would have an easy time reversing course and bringing inflation expectations down again without significant real costs. Even if I was wrong about that, and we could easily raise and lower inflation, we would have set a precedent that would permanently limit the credibility of our commitment to price stability, because always in the back of a market participant's mind would be the notion that in 2011 we raised inflation deliberately, and we could do it again. That will affect our conduct and our ability to meet our objectives for years to come. A strategy of tolerating a bit more inflation in an attempt to reduce unemployment bears, to me, more than a passing resemblance to the strategy pursued in the late 1960s and 1970s, and that was, obviously, such a dismal failure. I found it disturbing to have heard this notion entertained. I think it is agreed in hindsight that policymakers then placed excessive emphasis on unemployment, excessive blame on commodity price increases as opposed to their own policy errors, and excessive faith in the sluggishness of inflation expectations. Now, some of you no doubt view there as being a substantive distinction between the strategies we pursued then and the notion of tolerating higher inflation, higher than it is now today. I would love to understand it, because I don't get the distinction at this point.

I fully appreciate that unemployment has been painfully high for an excruciatingly long time period, and that high unemployment is associated with substantial losses in well-being for many Americans, relative to an alternative world in which we came into today's meeting with a much lower unemployment rate. I understand the compelling urge to do something, even if there are legitimate doubts about how much of an effect monetary stimulus can have at the zero bound, which is the circumstance we find ourselves in. But if monetary stimulus is effective at the zero bound, what are those effects? Are they real, or are they on inflation? I don't think there is any question that we should be more confident that monetary stimulus is going to affect inflation than it is going to affect real growth. That comes from a reading of monetary economics going way back. It is the effect on real growth and the non-neutralities of monetary policy that are the really hard things in macroeconomics and that have divided us and divided the profession from time to time. I think inflation is one thing that we know monetary policy can affect if it affects anything.

As I said, I support alternative C. On the off-chance that the Committee gravitates to alternative B—[laughter]—I have a couple of observations to make. First, about the inflation language, I agree with Vice Chairman Dudley that we should keep forward-looking statements out of paragraph 1, and that the movements we made to doing that are sound. If we have something to say about what we expect inflation to do, let's keep that grouped in paragraph 2 with everything else about the future. "Appears to be moderating" is a welcome addition to that. Under questioning, we can direct people to the three-month rate. At this point, I don't think we want to enshrine the three-month rate in the statement. I'm a little hesitant to do that without thinking that through a little more.

Halting our transition to a Treasury-only portfolio is a terrible idea. My head has stopped spinning right now, but— [Laughter]

MR. PLOSSER. It's on fire. [Laughter]

MR. LACKER. This takes us into the realm of fine-tuning sectoral spreads, and it begs questions. What about small business lending? What about municipals? There are plenty of sectors where there is distress, urgency, and a need. People are going to ask, "Well, you're helping out the housing market, why aren't you helping out our sector?" That's the reason we have stayed away from this stuff until the crisis, and we should keep on that track by getting out of the business of subsidizing housing. This perpetuates this really corrosive political economy in our country of tapping government resources to subsidize the housing market. I should think we would be a little averse to that, given the damage that caused in the last crisis.

About President Bullard's point on announcing $400 billion versus $45 billion, I think that is a cogent point. I will make the observation here about quantitative easing. We apparently are viewing, according to our Vice Chairman, quantitative easing as off the table because of the political backlash we got last year. That's my sense.

VICE CHAIRMAN DUDLEY. I would say that's too strong.

MR. LACKER. Too strong? Okay.

VICE CHAIRMAN DUDLEY. Not off the table. The bar is high.

MR. LACKER. The bar is high. Right. I have sour feelings about setting a higher bar. We have had two instances of naked political intimidation in the last week, and I think we all gravitate toward the notion that we set policy the way we see it. I'd like to believe that we do that.

VICE CHAIRMAN DUDLEY. I was very clear yesterday that we have to set policy based on what we think is right. But if the politics wreck the efficacy of the policy tools, then we have to take that into consideration as an environmental factor. There is an important distinction between the two.

MR. LACKER. I wasn't sure I quite understood the extent to which the political backlash would affect the efficacy of the policy without affecting our subsequent actions?

VICE CHAIRMAN DUDLEY. If the policy caused people to think that LSAPs would lead to a big inflation problem or loss of confidence in the Fed's credibility, the policy would be less effective, and so we might decide that the cost-benefit analysis is no longer favorable. You're not not pursuing the policy because of the political pressure, you're not pursuing the policy because the political pressure is going to undermine how well the policy instrument works in practice. That's an important distinction, I think.

MR. LACKER. Would that work through beliefs about our future actions or not?

VICE CHAIRMAN DUDLEY. I think it can work through a whole variety of ways. It could affect inflation expectations; it could affect our future credibility. I think there are a lot of channels.

MR. LACKER. Those both seem like our future actions.

CHAIRMAN BERNANKE. There was some evidence that the reaction affected market expectations of the continuation policy, and that reduced the stimulus impact. Both internally and externally, assuming we do the maturity extension, I think we ought to note it has its own legitimate benefits. In particular, it does not create massive additional excess reserves, which could create problems for our banking system. Second—and I think the evidence already suggests this in terms of what we are seeing in markets—because it doesn't increase high-powered money, it may have less effect on inflation expectations, which would be a positive from your perspective. I think it has some legitimate benefits, even aside from these calculations. Let me just assure everybody that we will do what we need to do, and political interference will not determine our policy actions.

MR. LACKER. I'm glad to hear that. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. If I might just say one word about the analytics between the 1970s and today. There is, of course, one very important distinction, which is that we are at the zero lower bound in the liquidity trap. You are familiar with the Krugman 1998 paper, which says in that particular case there may in fact be a permanent tradeoff—or at least a very long-lasting tradeoff—because only by increasing inflation expectations can you lower real rates at the zero bound. I'm sure you know that literature. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. It is a privilege to follow my esteemed colleague from Richmond. Here we provide the full range of options with just two commenters. [Laughter]

The economic outlook in the Tealbook clearly calls for action, and I would argue that the Tealbook outlook is on the optimistic side. As I look at the pricing of Greek debt and credit default swaps, I wonder whether the baseline forecast should include a Greek default. However, even with a more benign assessment of Europe, my forecast for both inflation and unemployment are consistent with significant action. My preference for this meeting would be to do three things. First, I would explicitly condition the forward guidance on economic outcomes, as President Evans has discussed recently, using language similar to what is in alternative A. Second, I would reinvest principal payments of MBS back into MBS. I strongly support that. Third, I would do the Twist, but signal that should financial instability increase, or the economy deteriorate further, more-aggressive policy would be considered. In particular, if conditions were to worsen, we should be considering targeting intermediate Treasury rates consistent with our conditional language and expanding our balance sheet. While my preference is a combination of A and B, I can support alternative B with paragraph 3. I do hope that the forward guidance based on the SEP is considered for our next meeting. I actually agree with President Kocherlakota that it might be worthwhile considering whether using two years, rather than a calendar date, would be a more appropriate way of describing time.

I normally don't comment on language, but this time I feel I should. In paragraph 1, I think the criteria should be that it's factual and consistent. If we use three-month inflation rates, we are, in effect, going to be describing commodity prices and oil prices. That doesn't seem to be what we are trying to convey. For retrospective, I actually agree with President Evans that we should be using core or underlying inflation, so we don't overweight temporary supply shocks. Prospectively, we should be using total, because in the medium-term total and core are likely to be quite similar. Going forward, we could come up with an agreement that if we are going to characterize it, then we characterize it consistently in that fashion. In terms of paragraph 3 and 3′, this is a one-time program, as we discussed yesterday. Talking about it in total makes much more sense than talking about it parsed in nine ways. In particular, when I look at the language at the bottom of paragraph 3, "The Committee will regularly review the pace of its securities transactions and the overall size of the maturity extension program," I would not use that language. I would go back to the August language that says, "The Committee will regularly review the size and composition of its securities and is prepared to adjust those holdings as appropriate." I don't think that parsing an extension program into very small bits will be particularly effective. That language implies that we might consider doing that, and I don't think we should. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Inspired by Governor Tarullo's laudatory comments yesterday about the Norges Bank and the reference from my colleague on my left about the Scandinavians, I reached into my Norwegian mother's electronic photo album, and I want to read to you the sign that greets those that are brave enough to go to the northern-most Norwegian islands called Jan Mayen, where there is a weather station that tries to assess global warming. I'm going to speak a little Norse here. I will translate it later for the transcripts. But it says, "Teori er når man forstår alt men ingen ting virker. Praksis er når alt virker men ingen forstår hvorfor." And what that translates into—and here is the sign—it says, "Theory is when you understand everything, but nothing works. Practice is when everything works, but nobody understands why." It goes on at the bottom to say, "At this station, theory and practice are united, so nothing works and nobody understands why." [Laughter] Forgive me, the Congress of the United States.

Mr. Chairman, I cannot support alternative A. I agree with Mr. Lacker on his points about inflation. Governor Yellen went back to 1983 with her long experience. I go back to thinking about the briefings I gave for Bill Miller's transition from this wonderful independent body to the Treasury, and the memory that I tried to recall in my comments for Tom Hoenig about President Nixon, the Nixon–Burns era. I think it's extremely dangerous for us to embrace a 2½ percent inflation number. If you are not persuaded by President Lacker, I would urge everybody at this table to read former Chairman Volcker's op-ed in *The New York Times*. That is a dangerous course of action to embrace. We have to really think through it extremely carefully. I believe President Rosengren and others have mentioned the importance of distinguishing between ceiling and target, but there is an ultra-sensitivity out there—particularly if you think in a historic context—of breaching the confidence that we hope to engender with regard to inflation.

There is very little that I can support in alternative B. I put forward my arguments yesterday in terms of the limited returns and the costs involved with duration extension or Operation Twist. I even quoted Mr. Swanson, who I think is a Swede by bloodline. He is sitting over there, and I don't want to put him in an uncomfortable spot. But in terms of the knock-on effects, as well as the direct effects, I think they are of limited utility, and the costs are quite great. I particularly am worried about the costs that we have imposed on those who have the least means, those who are out of work, those who are struggling to keep their jobs, and those who are aging, like me, and who are becoming more conservative with their portfolios, and therefore, shortening the duration of their exposure and doing what they are supposed to do. In other words, those who play by the rules have done what they are supposed to do, and are being penalized by our interest rate policy.

Of interest to me in the recent data that were released by the Census—and I know we are still looking at our triennial survey—was that the only income group between 2007 and 2010 that saw an increase in median income were those who are 65 and older. Those who are 65 and older are not going to take risk in equities. They are going to shorten their duration; they are going to focus on CDs. They are trying basically to preserve their savings but also are a source of purchasing power, since all other income demographics—whether it is age, race, or gender—have seen a declines in their income over the last three years. Every single one of them but citizens 65 and older.

I cannot see how lowering interest rates increases purchasing power. My logic chain is very simple. Final demand is horrid right now. How do we bump up final demand? We need to have more jobs. How do we create more jobs? We have to have more spending, more consumption. We also have to have more incentives. I don't believe inflating is an incentive; I believe inflating is a disincentive. And I believe in the basic principle of "do no harm."

I cannot support an extension, and I will not vote for alternative B as it is stated, nor alternative A. The one thing, which will surprise my colleague Mr. Lacker, that seems to make sense to me is to reinvest the proceeds as proposed by Vice Chairman Dudley from our mortgage-backed security roll-offs back into mortgage-backed securities. I mentioned yesterday that everything being contemplated at this table is most un-Bagehot-like. We are going to be purchasing more of, or extending the duration of, things that people are rushing into. If we do believe that we are in dire straits, then we should be purchasing things that people are rushing away from, or where the spreads are widening. By the way, Mr. Lacker, we are not allowed to buy municipals; we have already proceeded down the path of buying mortgage-backed securities. I think it is sensible in this case to help narrow that spread, which is widening, and I agree with Vice Chairman Dudley's argument on that front, and that is one thing that I can support.

I want to conclude with what I started with yesterday. We must plan for the most adverse outcomes. I articulated what they could be yesterday: a significant selloff in our own stock markets, which by different valuation methods—that at least I learned when I was in the business—is, if not richly priced, fairly priced, and therefore, has a lot of downside; the debacle that might ensue in Europe, despite their efforts to prevent it; or other exogenous shocks that could knock us for a huge loop. Right now, we have very little left in our holster. If you will forgive the pun on your initials, Mr. Chairman, we are shooting BBs, not bullets. We should figure out what ammunition we have left, how we might best deploy it, and what more ammunition we need should those dire circumstances prevail. Therefore, I can only accept alternative C, and I will vote accordingly. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I usually begin my policy round statement declaring support for one of the alternatives, and that is usually alternative B, which is appropriate for a member of the quiet middle. Today, I am going to take a different approach. Because I am a nonvoter at this meeting, I am going to give myself permission to put some arguments on the table for the sake of devil's advocacy. As I stressed in the economy round, I would argue that the ambiguity of the moment should give pause, pointing to a preference for alternative C at this meeting. One might prefer alternative C not out of strong conviction that no action is called for, but out of preference for not acting quite yet. The case for holding off is included in the broader Tealbook case for alternative C, which Bill English just recited. I would add to that case, as devil's advocate, that an approach that might have the most positive impact in jolting the economy out of its apparent torpor is a binary one. By that I mean either do nothing or go all in, but avoid incremental half-measures.

Let me present three reasons for holding our fire at this meeting. First, the hard data and anecdotal reports suggest that the second half of the year will be better than the first half, even if not by a lot. The staff Tealbook forecast assumes that an alternative B is required to generate this outcome. I would argue that skepticism on this point is warranted. Even conceding that the very modest rate effects assumed by the staff will be realized from an alternative B policy, marginally lower longer-term rates won't stimulate much additional borrowing and business activity producing job growth. Lower longer-term rates might stimulate some refinance activity by homeowners and commercial real estate owners, but short of some top-down program of comprehensive mortgage refinancing, the effect is likely to be marginal on real-side activity. Second, while acknowledging the sentiment that the Tealbook benchmark implies an uncomfortably slow decline of the unemployment rate, one could be just as uncomfortable with the persistent upward drift in core inflation measures. As the Tealbook shows in charts labeled "Evolution of the Staff Forecast" on page 31, misses giving rise to upward revisions in unemployment forecasts have been matched by misses in upward revisions of core inflation forecasts. A benchmark forecast that has a fairly large drop in inflation premised on an unemployment rate projected to remain high, in my opinion, should be questioned. A third argument for holding fire is to let a little time pass to gain perspective on the circumstances the Committee is facing. Per this argument, sentiment is being weighed down by an unfortunate confluence of bad or troubling news that arrived in a very short span of time. By that I mean benchmark revisions, the debt ceiling spectacle, the S&P ratings downgrade, Europe, the jobs report, Hurricane Irene, and inflation numbers.

I would argue that, considering both the data and the reports from contacts, the economy is not presently on a slippery slope to recession. This view argues for giving ourselves a little more distance from the events of late July and early August before concluding that the economic landscape has changed so fundamentally that the economy cannot achieve escape velocity without further action on our part.

Turning to the action side of what they called a binary approach, I would argue this: If there is no progress toward firmer economic growth, and there is actual deterioration and/or it becomes clear that the European issues or the fiscal mess in this country are likely to suppress economic activity going forward, stronger action than alternative B is needed, conditioned, of course, on no deterioration of the inflation outlook. It may be the case that a sequence of incremental policy steps ultimately accumulates to a big step. But if a jolt to the patient is what is needed, one big step may be preferable. So going all in—the expression I used earlier—could resemble President Bullard's proposal: an open-ended, quantitative easing commitment to be held in place until the Committee is satisfied that a sustainable recovery is firmly established or until we have to change course to meet our price stability mandate. Again, I am presenting these arguments in a devil's advocate vein, not in outright opposition to alternative B.

Switching to angel's advocacy, if that is a term, regarding alternative B, just a couple of comments. First, I favor 3′ as being somewhat more flexible. Second, I am sympathetic to the mortgage-backed securities reinvestment proposal. I think it might make a difference. If I could wave a magic wand once to help demand, it would be to lower all mortgage payments in the country. Third, in response to President Bullard's suggestion, I agree that there is something slightly wrong with the description of inflation in paragraph 1. A simple fix would be to add the word "somewhat," "inflation has moderated somewhat," to try to capture a little bit of the ambiguity and slight disappointment we feel in the way inflation has evolved during the year. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I favor alternative C. I do not see alternative B as being consistent with our decisionmaking in November of 2010. Inflation, and the outlook for inflation, has risen since then. Unemployment, and the outlook for unemployment, has fallen. I should clarify what I mean by the term "outlook" using it in a different sense from how Governor Yellen and President Williams have been using it. When I think about what outlook is relevant for the course of monetary policy, I try to think about what horizon you might think monetary policy is going to be effective at. In November 2010, one might look ahead to the end of 2011—a one-year-ahead look—and see where unemployment is going to be and where inflation is going to be at that point. I won't remember the numbers off the top of my head, but my recollection is that in November 2010 we were thinking about unemployment being around 9 percent by the end of 2011 and that inflation would be running 1.3 percent, or so, over the course of the year. Now, we come forward to September 2011 and, again, looking at what horizon do you think monetary policy is going to be effective at, that horizon is still one more year out. The right way to think about it is to consider our one-year-ahead outlook in November 2010 compared with our one-year-ahead outlook now. And once you do that kind of comparison, it is clear that the changes in economic conditions do not justify the addition of further accommodation, relative to November. One possibility is that our objectives for inflation and unemployment have changed, that we are willing to tolerate more inflation than we were in November of 2010. If that's true, then that change has to be communicated to the public. I detected heterogeneity of viewpoints even within this table about whether we are following what one might call a hard inflation-targeting framework or a flexible inflation-targeting framework. We have to be clear to the public about which framework we are actually using. I will come back to that toward the end of my remarks.

Two things have been difficult and have made the decisionmaking hard since last November. One is that I don't think we had a good tool for varying incremental amounts of accommodation as conditions changed. From November through March, conditions improved. In fact, I remember being asked, even in January by reporters, "Look, things have gotten better. Shouldn't you actually stop the purchase program at this point, or curtail it early?" I don't think any of us felt like we should do that, with possible exceptions. But, by and large, we didn't have an incremental tool for varying the level of accommodation as economic conditions varied. Let me talk about how my duration idea might have worked, my idea that the statement would include some expectation of how long we would stay at the zero lower bound over the last 10 months or so. In November 2010, I think we would have said something like, "We expect to be at the zero lower bound for eight quarters." Then, as conditions would have improved, in March I think that it would have been very reasonable to move that up to, say, five or six quarters. Certainly, we were talking a lot about exit among ourselves at that stage. We can quarrel about whether there would have been a consensus view, but let's take it as five to six quarters. From June to August, as things really worsened, you would have been able to do the natural thing, which is to add accommodation. The problem is that we didn't take accommodation away in the natural course of events as things improved.

The other issue is that I don't think unemployment and inflation are the triggers for this Committee. When I listen to people talk, I hear a lot of discussion about what is going on in terms of employment growth and what's going on in real GDP. I think real GDP growth and that performance is very important in the thinking of many people around the Committee. I say that only because I think it should give people pause about what you want to include in the statement as your triggers—be sure that those are the variables that we're conditioning decisionmaking on. I would certainly argue that for November 2010 through September 2011, those were not the variables that were critical in thinking about the conditioning decisionmaking. I think it was the poor performance of real GDP relative to expectations that was critical.

At the risk of being even more tedious, I will talk about why exactly I favor alternative C. Let me take the 1999 Taylor rule. This is generally regarded as a description of past behavior by the Committee that led to relatively good outcomes, and it is also viewed, at least among the rules that John Taylor suggested, as being relatively accommodative. Take the output gap in that model and translate it to an unemployment gap, and here you have to make a choice about how that translation works. I am going to choose an Okun's law coefficient of 2, which serves to make the rules less accommodative, and I will use the staff's effective NAIRU of 6½ percent. I will use core inflation of 1.6 percent, which is measured over the past year, and unemployment is 9.1 percent. If we plug that into the resulting Taylor rule, the right-hand side, it is going to say the fed funds rate should be negative 180 basis points, which sounds very low. The fed funds rate itself is between 0 and 25 basis points. Now the question is: how much accommodation is being provided by the cumulative effect of the LSAP? In November 2010, staff estimates were that the LSAP was providing about 200 basis points of accommodation. As President Williams has emphasized to us, this really depends on how long investors expect us to keep reinvesting the proceeds from the LSAP. It is worth noting that in November 2010 investors' modal forecast was that the exit process would take place less than two years later. I would say that, at this meeting at least, the LSAP is providing at least as much accommodation now as it did in November 2010. If you add this all up, you get a left-hand side of a fed funds rate of roughly minus 175 basis points. That means that alternative C is the alternative that is most consistent with the 1999 Taylor rule. This calculation I just offered is based on the staff's estimate of the NAIRU. I certainly think that the recent behavior of inflation and wages suggests that the NAIRU could be higher than 6½ percent, which would translate into a need for tighter policy.

The version of the Taylor rule that I am using has a particular inflation objective in it, which is to keep inflation at 2 percent. That is consistent with our communication of our current inflation objective. That is ultimately why I favor alternative C. It is the alternative that is most consistent with our communication of our inflation objectives. Indeed, my baseline forecast is that further accommodation along the lines of alternative B is likely to lead inflation to average 2 percent over the next two years.

Let me pose a counterfactual. Suppose that over the past few months the Committee clearly communicated to the public its willingness to accept inflation higher than 2 percent, or even as high as 3 percent. Then I would say that my concerns about credibility would have been met. President Lacker has raised some very important issues about that communication and what it would mean for longer-term expectations. But if we have a flexible inflation-targeting framework, we should not be operating it clandestinely. I think there are good public policy reasons for that, and at heart, it limits our effectiveness. If we had clearly communicated our willingness to accept inflation higher than 2 percent, or even as high as 3 percent, my concerns about credibility would have been met, and I would have been willing to support additional accommodation at this meeting. But as it is, Mr. Chairman, I am going to be supporting alternative C.

CHAIRMAN BERNANKE. You said conditional on B, you thought inflation would be what?

MR. KOCHERLAKOTA. I think it is going to average slightly above 2 percent over the next two years.

CHAIRMAN BERNANKE. I think there has been a miscommunication that I do need to address—just a couple of preliminary points. There is a pretty broad agreement that we are flexible inflation targeters, and President Bullard and others have made that acknowledgement. That is the only one that is consistent with the dual mandate so that means that we are looking at medium-term inflation and allowing for some flexibility in the short run.

Just a comment on the Taylor rule, which is on current variables, so a worsening in the outlook associated with financial distress would not appear in any way in that kind of model.

But let me address the thing that you have said a number of times, and I really don't understand. It's true that I have said in a number of speeches that our target is 2 percent or a bit less, by which I mean that if you look at the SEP, it reports that the central tendency of our Committee is 1.7 to 2.0 percent. What I'm saying, basically, is that the target is 1.85, let's say. What I have never said—and I don't think anybody around this table has ever said—is that we will not tolerate inflation above 2 percent. That is a very different proposition. Under a flexible inflation-targeting regime, with quadratic preferences or whatever weights you want to put in it, depending on the state of unemployment, there would be times when you would tolerate inflation a bit above the target. In particular, there is no inconsistency with having inflation a bit above 2 percent and having a π^* that is 1.85 percent. I understand that you have concerns, and you have every right to disagree. But on that one point, I really don't think that that is correct. The ECB has a somewhat different kind of approach where they seem to have a ceiling. But we have never expressed a ceiling approach to inflation. Rather, we have a target around which there is going to be some random variation and policy variation.

MR. KOCHERLAKOTA. Mr. Chairman, I think that this underscores the challenges of communicating with the public on this point. I think that the public perception of our framework is closer to the idea that we will not tolerate 2 percent. It would be very helpful to clarify—exactly as you have now with me—what our inflation target means and what it does not mean. In my view, the reactions to President Evans' recent remarks show that there is a sense in the general public and in the media that our medium-term targets really translate into something we have to meet on a year-by-year basis.

Those of us that are involved in the idea of monitoring cost recovery for the product office might be familiar with this example: In the product office, they are supposed to recover costs over a 10-year horizon. The way we implement that is by watching them closely on an annual basis to make sure they are doing cost recovery. With that, I think it will be very helpful—certainly for my own thinking about policy—for the general public to hear exactly this clear explanation you just gave to me about what the framework is. Thank you.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I do not support a change in policy at this juncture, and therefore, I support alternative C. As President Kocherlakota pointed out, inflation has moved up, not down, since our last meeting and since last fall, and the unemployment rate has not worsened. I think we should be cognizant of the risks of fueling a steady rise in inflation over the medium term, even while the unemployment rate remains elevated. Any action that we take now is likely to have only marginal impact on growth and employment, and yet it could make it more difficult for us to address future problems that arise in the financial markets or to combat deflation should it emerge. It does not make much sense for us to try to calibrate the speed of economic recovery, and the empirical evidence we have to date during this episode of the Great Recession suggests that we have very limited ability to do so in any event. As President Fisher said, we should be spending our time evaluating the emerging risks stemming from the continuation of the sovereign debt crisis in Europe and how we should respond should that situation devolve into a full-blown crisis.

I will also step out of my usual box and go into the realm of psych-ops that President Lockhart raised yesterday. We seriously have to ask ourselves as a Committee whether or not our incessant efforts to "fix the economy"—to little or no effect recently—is reassuring or actually lowering confidence. I think the very negative outlook we painted for the economy in our August statement was too negative, and our actions in that statement came as a negative shock to consumer confidence. Confidence fell, and markets were surprised at how negative we were. I don't think that was a wise decision, and it likely contributed to falling confidence. The August language was also problematic for me because I think there are better ways to provide forward guidance than using calendar dates. Yet now that we have the language in the statement, and we have opted for a fix, it is hard to get it out, and we have to craft a way to get it out, as many of us have discussed. That suggests we should be very careful in changing language in our statement, because we tend to live with it for a while, even though we think we don't. It's hard.

Those concerns lead me to believe that alternative A, at this point, is a particularly dangerous road to go down. Once we have those numbers enshrined in the statement, it will be very difficult for us to change them. We have not given sufficient thought to the underlying mechanisms that give rise to those numbers. I don't think we have had sufficient debate on the underlying loss functions or rules that give rise to them. Proceeding with that from one meeting to the next—engaging in this very quickly—would be a mistake, and we would likely regret it because we would have trouble getting out of it. In a framework like alternative A, we also have to be concerned about our credibility. We put a target for 2½ percent inflation as a trigger or a 7 percent unemployment rate—whatever the numbers happen to be, and I'm thinking about inflation right now as an escape clause—that we would act. We would then have to ask ourselves very seriously, "While we can all say that today, would we really act?" Today, year-over-year headline inflation is almost 3.8 percent on the CPI and 2.8 or 2.9 percent on the PCE. We are not acting. Why are we not acting? Because we are relying on a forecast that we are confident that inflation will fall. But we have been saying inflation will fall and stay low ever since last fall. Forecasts haven't been very good. We have to be careful about those forecasts.

We don't have to go back to the 1970s—just look across the Atlantic at the Bank of England. For nearly two years now, inflation in the United Kingdom has risen from a very low level to 3 percent, and now inflation is 4.8 or 4.9 percent. This has occurred over a little less than a two-year period. They continually forecast that inflation is going to come down. Yes, it will come down next time; it will come down next quarter; it will come down the quarter after that. We keep looking for excuses as to why inflation may or may not be high, and looking at every excuse except monetary policy. I am worried that relying on forecasts and looking forward will make it very difficult for us to pull the trigger in such a strategy. We will have extreme biases toward excessive ease. The Bank of England is facing some severe challenges. Unemployment rates are running at around 8 percent, give or take a little bit from month to month, and inflation is pushing 5 percent. We do not want to find ourselves there, and yet I think it is entirely possible. There is a lot of slack in the U.K., but it hasn't prevented them from facing severe inflation problems.

Alternative B has its own set of problems. As I said, it is unlikely to be effective at improving real outcomes. It doesn't address what I believe are the real risks that this economy faces right now, and they are not risks within, they are the risks of a financial implosion in Europe. Alternative B is unlikely to be perceived by those outside the trading floors of Wall Street as anything but an ineffective measure for the real problems that Main Street faces. When we take actions that Main Street perceives as ineffective and plays to traders, we undermine our credibility. It leaves the impression that we are acting because we can, and doing what Wall Street expects, not because we must. I think we are entirely overreacting to short-term events. I agree with President Lockhart's remarks about pausing, taking stock, and not feeling like we have to create responses to every intermeeting period's events. To react to short-term events is a dangerous way to conduct policy, and we should not do it that way. Our unemployment problem is a serious problem. It is a devastating problem for many millions of workers. But I think it is a medium- to longer-term problem that we face that is not easily repaired by short-term fixes and short-term tools. Those short-term tools, to the extent that we use them to no avail, will create longer-term problems for us down the road. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Why don't we take 15 minutes for coffee, and then we will come back. Thank you.

[Coffee break]

CHAIRMAN BERNANKE. Let's turn now to President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. This is a difficult decision in a highly uncertain economic environment, but today I support alternative B. Over the last several months the incoming data have made it clear to me that the slowing of the pace of the recovery has persistence. It isn't just a temporary response to supply disruptions and high commodity prices. In addition, the incoming data have significantly increased the downside risk to growth. While it is extremely difficult to forecast recessions, I think the deterioration in consumer and business sentiment and in the international economic conditions have left us on the cusp of a recession. I still project that the economy will avoid a downturn this year, but I think that a little extra accommodation would help lower the risk of a downturn.

My primary concern about providing more accommodation is the inflation risk. As I mentioned in yesterday's economic go-round, I think it is most likely that inflation will be at or below the rate consistent with price stability in the medium term, but with core inflation measures coming in higher than expected for several months now, including in August, there is a risk of underestimating underlying price pressures. In judging the inflation risks, I do take some comfort from the stability of various measures of inflation expectations at rates that are consistent with price stability. I think this leaves us room to adjust policy in response to the increased risk of recession, but because the margin for error on the inflation outlook is not large, I would prefer that the maturity extension program be structured at a monthly pace as described in the language in alternative B(3′). This approach would give us more flexibility to alter the program if underlying inflation does not moderate.

I prefer to continue to reinvest maturing agency debt and MBS into Treasuries. We told the public that we wanted to return our portfolio to a Treasury-only portfolio. If we decide that this is an appropriate way to go, I would rather wait to do this at our November meeting because that is a meeting where you will have a press conference. It will give you an opportunity to talk about the change in our reinvestment strategy.

I also hope that at our November meeting we will be able to incorporate into our statement some of the elements of an enhanced communications strategy that we discussed yesterday. I would especially support including language along the lines of paragraph 2 in alternative A. I would leave the language in that the Committee discussed the range of policy tools. We announced that we changed this meeting to a two-day meeting in order to provide us time to discuss our alternative policy tools. And finally, in paragraph 1, I do prefer changing the language around the inflation situation to “inflation appears to be moderating.” Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I want to thank President Lacker and others for their sobering comments about the 1970s. I don't think anybody here can conduct monetary policy without at least being concerned about any parallels to the 1970s and that difficult period in which the Fed didn't perform as ably as anyone would have hoped. That said, I believe that today, this period, will be as important for the United States as the 1930s were. The responsibilities of the Federal Reserve are as important today as they were in 1930s. This gives me great pause. The 1930s Fed has been vociferously criticized, and I don't think that this is a time for monetary policy in a business-as-usual mode. We have to think differently than that.

Normally, monetary policy can act within sS bands and achieve good outcomes with normal policy responses that are within these bands. Whenever policy is normally within these channels, you can follow a Taylor rule. You can follow the same type of policy process that President Bullard talks about in terms of having a bias for policy and a continuation basis. But times are very different now. In 2008 and 2009, we blew through those sS bands. At the zero lower bound, we did all kinds of additional liquidity programs like the TALF, QE1, and QE2.

Milton Friedman said that short-term interest rates of zero are a sign of restrictive monetary policy. That's what we're facing at the moment. There's an excess demand for safe assets. I think we have liquidity trap conditions, which are inhibiting the accommodative stance of policy that we'd like to say that we have but, in fact, we don't. Since most of the public, however, disagrees with this Friedman characterization—that our policy is restrictive today—we have a tough mountain to climb, but we should climb that mountain.

The effects of policy accommodation are currently held back by the time-consistency dilemma of conservative central bankers. I talked about this yesterday. Many around this table will earnestly talk about inflation risks and have the effect of damping the expectation that policy can be truly accommodative into 2013 and beyond. For policy to be truly accommodative, I think we need a clear and transparent commitment to forward guidance. I commented yesterday about how the usefulness of economic markers related to the unemployment rate, with inflation safeguards, would help dramatically to achieve that type of clarity. Yes, I think we should have more clarification on the language that we introduced at our last meeting in terms of mid-2013. It wasn't totally satisfactory. I don't think anybody would disagree with that, but we need clarification of that in line with what our objectives really are.

Mr. Chairman, yesterday you spoke very well about flexible inflation targeting, but I think that details really matter there, and we have different views about how we think about flexible inflation targeting around this table. I don't think it's well understood. I agree with President Kocherlakota's suggestion that we need the leadership of the Committee to speak publicly about this. I think that you and the Vice Chairs should craft the most aggressive characterization of flexible inflation targeting as we can do. That's very important. I gave a speech recently where I used the colorful phrase that we should act as if our hair were on fire because of the fact that the unemployment rate was very high. I did that, in part, to clarify and amplify the key operating requirements that are part of flexible inflation targeting. I thought that was just a natural way to help describe what that really means because it's not out there enough.

Many times in the last two days we've made comments about how fragile our FOMC statement is and that it can't really bear the burden of including a few additional safeguards because the public won't understand it. I disagree with that at least in the following sense. I think that the Chairman, especially the Chairman, should craft a speech or testimony in which he describes exactly what we mean by these important policy options, and then they find their way into the statement in a way that is well understood by the public when they first see them. That's how important changes in language have often been introduced, which suggests that, in fact, we could introduce those types of communication vehicles. It does require more than just introducing it to the statement. It requires a lot of additional work, but there's time to do that work within a short period of time.

The discussion at this meeting reinforces for me that our current policy development is a journey. I recognize that we won't get to the conclusion that I favor today, but we have to continue to make further progress today. I prefer, not surprisingly, alternative A with paragraphs 2 and 4. Frankly, if I had an ideal policy characterization of this, I would say that we could tolerate short-term deviations of inflation from our target up to 3 percent, and the unemployment rate threshold of 6½ percent would also be very reasonable, according to my reading of the policy memos. Whether or not we choose LSAPs or a maturity extension program is less critical to me. It's more about the commitment to having an accommodative policy. So I am fine with just doing the MEP as described in alternative B. I think we should expect to make progress toward hitting these thresholds, and if setbacks were to occur and progress wasn't made in a reasonable period of time, then we should respond with more policy accommodation. However, we've got inflation safeguards in the framework that I prefer. If medium-term inflation—it's a forecast, but that's how we have to think about inflation—were to go above 3 percent, then we would think about winding down that type of accommodation. If people don't like using the unemployment rate in there, there are other reasonable measures that could be put in there. We have talked about resource slack and about output gaps, but a lot of times one reason why we talk about unemployment is because people are nervous about saying the output gap because of the uncertainty. There's going to be uncertainty, but we have to be able to point to something. If you don't like unemployment, we could use the employment-to-population ratio. I don't see why that can't be achieved.

I can accept that more discussion is required before we can entertain the types of actions like those we've discussed today. I look forward to additional discussions about policy frameworks, state contingent as they might be. I think that the state exists where we should undertake these. Alt B today can be acceptable to me. It's very important that as long as we make progress today toward more accommodation, I can support this. If the journey stops prematurely or aborts, I'm not sure I could support that given the extraordinary needs that the economy faces, and so I think November will be a very important discussion.

In terms of additional particulars, in alternative B the discussion about MBS purchases is fine. On the inflation in the first paragraph, you could go either way on this. It is true that this should be a factual discussion about developments of inflation, and sometimes it's just not how you would like it to be, but you have to acknowledge that, and you have to get that right in the second paragraph where you're talking about the forward-looking expectation for inflation. We have to make a choice there, but we're going to have to live with it. That's everything. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. First Vice President George.

MS. GEORGE. Thank you, Mr. Chairman. The economy appears to have lost some momentum in recent months, and labor market conditions certainly are weak. Furthermore, the downside risks to the growth outlook are considerable and have increased, especially with respect to the situation in Europe. Yet price pressures are broad-based, and inflation has been above 2 percent recently.

Regarding the policy options, my views are influenced by three factors. First, I do see the recovery as continuing, although at a lower level over the near term. Second, inflation is currently elevated and does not appear to be influenced solely by temporary factors. Third, current policy remains highly accommodative. Based on these factors, adopting additional accommodation at this time seems somewhat premature, although I do prefer that we keep the tools discussed under alternatives A and B on the table as we go forward. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I support alternative B. The economic outlook has deteriorated significantly since our August meeting and downside risks are looming ever larger. I've become increasingly concerned that the economy is near stall speed and could easily slip into recession. As I explained in the economic go-round, I see the modal outlook as decidedly worse than a year ago when we decided to adopt QE2. In particular, my outlook under current policy settings, like the Tealbook's, is for unemployment to stay horrifically high for years while inflation over the next two years declines below mandate-consistent levels. I can't see how such a forecast can be consistent with optimal policy under an inflation-targeting strategy if we interpret that as a forward-looking approach in which we choose policy to minimize a loss function, including deviations of inflation from target and deviations of unemployment from its long-run equilibrium level. In addition, we face downside risks that are exceptionally large at a time when policy is constrained by the zero bound. Therefore, I strongly support taking actions at this meeting to foster a stronger recovery, assuming they pass a cost-benefit test.

In my judgment, the maturity extension program, even though it is obviously not a panacea, is a cost-effective tool for providing some additional monetary accommodation. I support Vice Chairman Dudley's suggestion that we roll over maturing MBS principal back into MBS rather than into Treasuries. I agree with the arguments he and others made for this strategy. Reducing the spread of MBS yields over Treasuries will have greater bang for the buck and would avoid a reduction in market liquidity that could result from our increasing dominance in the long end of the Treasury market.

Regarding specific language, I would prefer the first variant of paragraph B(3) because conveying our intent to complete the full program seems likely to provide the greatest extent of stimulus and would be consistent with our communications about the previous round of longer-term Treasury purchases. That said, I see good reasons for engaging in regular reviews of this program over coming months. In particular, if the strains in European financial markets intensify much further, it's quite plausible and perhaps likely that safe-haven flows would flatten the Treasury yield curve to the point where there might be little or no benefits to proceeding with our maturity transformation program. In light of such considerations, I'd be willing to support the second variant of paragraph B(3) if that language seems preferable to other members. Finally, I strongly support the bracketed language in paragraph B to underscore that the Committee is prepared to employ additional policy tools as appropriate. Indeed, as I noted yesterday, I believe that communications may be the most powerful tool that's still in our toolbox. I continue to see advantages to the approach in alternative A, but this is something we need to give further consideration to in the context of the larger discussion of our monetary policy framework in November. I also strongly agree that we need to consider out-of-the-box or blue-sky approaches should things deteriorate further, and that it's important to develop those tools now.

CHAIRMAN BERNANKE. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I want to particularly thank you for noting yesterday that I have learned to use the lingo of the FOMC, but I'm not yet able to plug my assumptions into a Taylor rule so I'm going to have to make up for that by expressing myself in terms of munitions metaphors.

When I look at the forecast, and particularly the inflation forecast, I could support alternative C. I'm concerned about the trajectory of the revisions to inflation and am mindful of the comments that President Kocherlakota has been making. But going back to the framework that I used in making business decisions, I also got used to asking: What is the worst possible outcome that could occur as a result of taking an action, and if that happened, would we be in a position to deal with it? When I looked at the estimate of the inflation effect in the forecast under the baseline and all the alternative simulations, only the "Greater Supply-Side Damage with Higher Inflation Expectations" scenario breached 2 percent on total or core PCE, and that one peaked out at 2.6 percent, which didn't seem like an awful outcome. Further, if the forecast and the estimates of inflation that would be generated by this action were wrong and we did, indeed, get more inflation than we expect, I think we know what to do about it. It might be difficult to decide to do that, but we do know what to do about it. And at that point, we would also know that this balance sheet gun is truly out of bullets and that we wouldn't be able to use it anymore.

As to the "keeping the powder dry" philosophy, I will admit that the experience of the last few years has made me more inclined to go ahead and shoot now. But even if I were inclined toward keeping powder dry, I'm not sure that this is the specific dry powder that would be helpful in a financial crisis that was precipitated by a European crisis. In that case, our balance sheet would be likely to grow again as a result of liquidity-providing actions, and I don't think this would necessarily be the tool we would choose in that circumstance. However, if we're going to take this action, it's important to get the maximum effectiveness out of it. For this reason, I support the first paragraph 3 rather than 3′. We get the full stock effect immediately, and the reduction of uncertainty offsets the loss of flexibility. Second, it's important to aim precisely, and I support the reinvestment in mortgage-backed securities as a way to make this action, if only marginally, more effective in the housing market where I think the weakness is a significant impediment to recovery. Finally, President Bullard said that the Committee would not announce a series of interest rate moves in advance and that that is what the first characterization of paragraph 3 is, but that's exactly what we discussed yesterday in terms of the forward guidance—announcing a series of actions in advance. Again, I think 3 is more powerful. In paragraph 6, I have some discomfort with the bracketed language because it seems to leave us in the position of reloading, and I'm not sure exactly what sort of actions might be expected as a result of that language. Given my strong concerns about reducing the IOER, I would be really uncomfortable about setting up expectations for additional action that I'm not sure that we would be able to meet. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Given that I have for some time believed that there was no real momentum in the economy or, more precisely, that the momentum that existed was provided only by fiscal and/or monetary stimulus measures at their peak of impact, I do believe we are still in a position where we need further stimulus. Like many people around the table, I would prefer that we had more of a structure within which we could provide that stimulus as appropriate, both timing and quantity. We don't right now, and certainly with respect to the communications options, it's going to take some time to develop it whether, as

Charlie Evans suggests, through public preparation before a move or through some change in the economic projections. In light of that, I would support alternative B. The maturity extension is, for the reasons many of you detailed yesterday, a program of limited efficacy, but as I suggested yesterday as well, the very limitations are, in some sense, appropriate given that we don't have a broader structure, and I don't think anybody is going to misunderstand this as the first step in some broader program.

On inflation, it is surely the case that inflation has been higher than many, if not most, of the people around this table expected. On that, I would say two things. One, I find the staff's explanation as to why the factors pushing up inflation are temporary more compelling than the explanation of factors as to why the relatively weak performance of the economy is temporary. And two, as many of you, most recently Janet, have suggested, if we're not willing to contemplate any increase in the potential inflation rate, even over a short term, notwithstanding a path toward the long-term rate, then it doesn't seem that we have a flexible inflation-targeting strategy anymore. We have a hard target, and I have never understood that to be the framework under which this Committee functioned.

With respect to specifics, I'm sure whatever language those of you with an intense interest in the inflation language come up with will be fine with me. For the reasons Betsy stated, I also would favor paragraph 3 rather than 3′, but if there were a strong view among others for 3′, I would not oppose it. Given what I said earlier, I am for the MBS rollover as well. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. Persistent weakness in labor markets, accompanied by the significant risk that sustained high unemployment could push up the structural unemployment rate in the longer term, suggests to me that continued accommodation is warranted. However, in order to make a notable difference to the economy, a sizable action is needed in my view, well beyond the Twist described in alternative B. While I agree with the qualitative features of this plan—removing duration risk from the market without increasing the size of the balance sheet—it is unlikely that the magnitude we are considering by itself will deliver an impulse sufficient to get the economy out of the doldrums. The largest boost to economic growth I've seen for this action is ½ percentage point, and even this modest number may end up being too high. At a 10-year yield of 2 percent, much of the impact on longer-term interest rates is now probably discounted, and while it's still early, I would be surprised if this move alone would have a significant positive impact on the economy. Nonetheless, at this juncture I think we need to do all we can to raise mean expectations of growth. From this perspective, I note that Committee participants with the help of staff have brought forward very interesting variations in the tools we have, and I believe that these variations could be useful in nudging the economy to greater growth.

Before briefly commenting on certain specific portions of alternative B, I want to say that contingency plans are important. We should do contingency planning. But we also have to do what we can to keep these contingencies from hurting us now, by creating the conditions now for stronger economic growth by inoculating, so to speak, the economy or partially insuring it from the impact of greater harm later on. For example, if the situation worsens in Europe and dollars become more of a safe haven leading to appreciation, clearly we would see our net exports declining, and, all else being equal, we would be led to weaker economic growth, which brings us back to where we are now and the ultimate challenges that we are looking at. Obviously I'm discounting here the effect of greater financial disruption. But I do want to make sure that we don't use the necessary steps regarding contingency planning as just a way of kicking the can down the road in terms of what we can be doing now. In terms of that, I am heartened by a lot of the different suggestions that have been made. I think that Narayana's suggestion about moving from a date certain to duration has particular virtues in these times. It would be something, too, that would not require us to change language with the rapidity that we currently do, and that suggestion has potential.

In terms of 3′ versus 3, I'm sensitive to Jim's concern regarding stimulus fatigue. Most of us remember that one reaction to QE2 was the fixation on the total program size, the notion that what was done in QE2 was government spending of a magnificent magnitude. If we're of the view that this level of analytical understanding in the public hasn't changed much, we may want to consider repositioning how we as individuals communicate this and how our press people present it. On the reference to housing in paragraph 4, I want to just remind us all that it is the failure of the housing market to bounce back that is a significant factor in holding back economic growth. While it may not be time to do this now, I would favor the slight enhancement in mortgage market conditions that is implied by paragraph 4 in alternative B. I don't think that there is really something to watch here or that we need to wait in terms of understanding what's going on in the housing market. But I do feel sensitive to the concerns that we may want to analyze more closely the effect regarding credit allocation and the real improvement that would come through such action. I want to say something about paragraph 6 and the bracketed language regarding the fact that "the Committee discussed the range of policy tools available to promote a stronger economic recovery in the context of price stability" and note in deciding whether to include that language that it does appear to be the truth. [Laughter] Finally, I close by saying that in terms of the inflation language, I am moved by the current structure that paragraph 1 continues to be where things are now, and that we put in paragraph 2 the Committee's views regarding what will happen to what we are seeing. I would be fine adding the language "appearing to moderate." Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. First, a couple of observations on the Taylor rule. I've never liked it, and I particularly don't like it in the current set of circumstances. The reason I don't like it in the current set of circumstances is that I think that it doesn't really work well because we know that the equilibrium real rate of interest is not anything close to 2 percent, which is assumed in the rule. We could actually solve backwards. We've seen the economy perform very, very poorly despite what's supposedly a very stimulative monetary policy. Well, why is that? Because the monetary policy hasn't been as stimulative as we thought, and that underscores one fundamental flaw of relying on the Taylor rule as your guide to policy.

A second problem with the Taylor rule is that we have an economic situation where the losses are very asymmetric. If we turn out weaker than we want or expect, there's a really good chance we're going to end up in a debt deflation, Japanese-style trap and we're not going to be able to get out. The losses on that side are very high relative to the losses if things turn out to be a little bit better than we expect, and if we get a little bit more inflation than we expect. In that environment, even if we thought that the Taylor rule was the right formulation, we should be following a policy easier than the Taylor rule because of this asymmetric loss function. That's about the big picture stuff. Let's get down to the statement.

First of all, I'm a little bit worried that the markets are going to take what we do today as us being done. In other words, we're doing the maturity extension program because the bar is too high to do an LSAP, and so that's it. We want to lean against that expectation. In alternative B, paragraph 6, rather than have the phrase "employ its tools as appropriate," I would prefer to strengthen that a little bit to say "to employ the full range of its tools as appropriate." Keep it open ended, indicating that we could do more should things continue to go badly, which they very well might over the next six weeks. The second point is on paragraph 4. I do favor investing MBS into MBS. But I would flip the sentence order in paragraph 4. I would put the new policy action, "To help support conditions in the mortgage market, the Committee will now reinvest…" and then I would follow with the second sentence, "The Committee will maintain its existing policy..." This would give a little bit more prominence to the new policy action rather than the thing that you're maintaining. In terms of 3′ versus 3, I have quite a bit of sympathy with what President Bullard has been saying on this, but I don't think it works in this particular case of the maturity extension program because you can do less, but you can't do more. You're limited at $400 billion by the nature of the constraints on our balance sheet. If we were ever to do an LSAP, I would be inclined to do 3′ because there is some value to having something that you can stop earlier or you can keep going. But in the case of the maturity extension program, there is no option to keep going beyond nine months. So I think that 3′ is actually weaker than 3, and I do not support it in this particular set of circumstances.

In terms of alt A, I would prefer to have more information that we could share with people about our reaction function. I don't think the date is really sufficient, but yesterday's conversation made it very clear there was no consensus on how exactly to do that. We should look at the SEP and try to discover what our ranges of views are on this subject, both in terms of what triggers would be interesting to us and whether any broad consensus would come out of those numbers. We may find that there's no consensus and that this is a blind alley, but if there's a reasonable consensus, then maybe the SEP is something that can support this going forward.

And finally, I absolutely favor contingency planning in this environment. This is about as dark as the Committee has been regarding the downside risks that I can remember since maybe the dark days of the fall of 2008. The European situation, in particular, looms very large. We absolutely have to have contingency planning not just about our monetary policy stance, but also about what liquidity facilities we would deploy and in what manner. In other words, what's our program escalation should things go in the wrong direction for market functioning? Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much, and thanks, everyone, for comments. Arthur Burns once wrote a speech called "The Anguish of Central Banking." I can really relate to that. [Laughter] Many of you are taking strong positions for debating purposes, but I am sure all of you are introspective and appreciate how very important these decisions are and how difficult they are given how little we know and given the wide range of complex economic and political forces—and even natural forces from hurricanes to earthquakes—that are at play as we think about this. These are very, very difficult decisions, and I appreciate everyone's serious consideration.

I was very pleased that we made a good start on contingency planning. What it tells me, though, is that as difficult as the decisions are today, they conceivably could get a lot more difficult. For example, there are scenarios where deflation risk increases, and we look at LSAPs and have to figure out how we would manage that. There are scenarios where we would want to change our framework. I suspect that, barring a major change in the outlook in the next few weeks, it's going to take us a bit of time to fully work through all of those options. I am, therefore, not sure what the next steps are likely to be and how quickly they will come.

That fact that it's difficult to judge how quickly and how aggressively we'll be able to move in the future is a consideration for me because I do think that the recovery is in some danger. Recession risks are increased. Financial volatility and financial stress are very important headwinds. At the same time, while acknowledging that inflation hasn't fallen as quickly as we expected, all the fundamentals suggest that, as best as we can tell—and of course, our forecasting is not particularly good—most of the pressures are toward stabilization or decline in inflation. Given that, I feel that we need some kind of bridge from now until the time when we either face some even more dangerous situation or choose to make fundamental changes in our framework or communication. For that reason, taking into account the very good arguments made—I was going to say on both sides, but there are probably about five or six different sides here [laughter]—I would propose to recommend alternative B to the Committee today. The idea is that we will provide some support for the economy and some reassurance that the Fed continues to be there. Clearly, it's not a panacea, as a number of people have pointed out, but I do think of it as a bridge toward whatever future action this Committee may find to be appropriate.

I favor the reinvestment into MBS. I note for those concerned about this reinvestment that all this does is maintain our current level of MBS. It doesn't increase either our balance sheet size or our holdings of MBS. It has the advantage, first of all, of focusing on a troubled sector—the housing sector. But we also talked a lot about market functioning the last two days, and by reducing the purchases of longer-term Treasuries, we'll actually reduce some of the pressures in the market functioning in the Treasury market. I think that's constructive. That's my recommendation. I do want to reiterate what I said before about maturity extension. It is a different policy from the LSAP. It is not as powerful, and it is, of course, not repeatable, but its advantages include having fewer implications for excess reserves, for the size of the balance sheet, for our exit, and for inflation expectations. In those respects, it's a policy worth considering.

In terms of the language, in the first paragraph we've had two suggestions on inflation. One is "inflation has moderated somewhat since earlier in the year." The other is "inflation appears to be moderating." I don't feel strongly about that. Does anyone have a comment? President Lacker.

MR. LACKER. Would "appears to have moderated" be more consistent with Dudley's dictum regarding the first paragraph?

CHAIRMAN BERNANKE. That's fine with me. Is that okay?

VICE CHAIRMAN DUDLEY. That's fine with me.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Just an observation. In some respects, the moderation of fuel and energy prices is what's really driving the moderation of overall inflation at this point.

CHAIRMAN BERNANKE. And that's what it says in the sentence here, too.

MR. PLOSSER. Fuel and energy prices have moderated, period.

CHAIRMAN BERNANKE. Right, but we count those. "Appears to have moderated," is that fine? All right. Any objection? Okay. "Inflation appears to have moderated."

I'm going to come back to 3 versus 3′ because I would like to hear the Committee's view on that decision. First, on paragraph 4, does anyone have a reaction to the Vice Chairman's suggestion of reordering those two sentences? Any particular concerns?

MS. YELLEN. Good idea.

CHAIRMAN BERNANKE. If we did that, it would be, “to help support conditions in mortgage markets, the Committee will now reinvest . . . in agency mortgage-backed securities. In addition, the Committee will maintain its existing policy rolling over maturing Treasury securities at auction.” Have you got that?

I have a compromise suggestion on paragraph 6. On the one hand, as Governor Raskin very appropriately pointed out, we did discuss the range of policy tools. The statement should correlate to some extent with the events of the meeting. On the other hand, I think that “the full range of its tools” is a little aggressive. I would propose that, as a number of people have suggested, we go back to the language of August, which is identical to this without the brackets. “Discussed the range of policy tools” is a reasonable step. I don’t think it promises any additional action in the near term. Is that okay?

MS. DUKE. “These” rather than “its.”

MR. ENGLISH. Yes, change “these” to “its” to make it work with the brackets. You could go back to “these” if you want to use exactly the language in there.

CHAIRMAN BERNANKE. Let’s make “these” into “its.” In other words, let’s just take paragraph 6 as it stands without the brackets, which is essentially the August language.

Now the somewhat substantive decision is 3 versus 3′, and we will come back to a couple of issues there in a minute. Paragraph 3 gives the full amount, but it does note that there will be review of the program in light of incoming information. Paragraph 3′, which is more along the lines that President Bullard has advocated, gives a monthly rate. Perhaps it’s a bit more contingent. We will have the same last sentence in either case, which will be some kind of regular review. I’d be inclined to take a straw poll on this decision unless there’s anyone who wants to make a comment. Anyone? [No response] How many are in favor of 3, which gives the $400 billion total number? [Show of hands] One, two, three, four, five, six, seven. How many are in favor of 3′? [Show of hands] One, two, three, four, five, six.

MR. TARULLO. Some of these people are voting against alternative B.

CHAIRMAN BERNANKE. What?

VICE CHAIRMAN DUDLEY. It should be a vote for B.

MR. TARULLO. Yes, and Richard didn't vote.

CHAIRMAN BERNANKE. No, that's fine.

MR. KOCHERLAKOTA. I voted, but I thought it was a straw poll.

CHAIRMAN BERNANKE. That's all right. Your wisdom is still welcome even if you don't agree with all of what we're doing here. [Laughter] Did we have seven to six? I see a mild majority for 3.

Finally, but in order to maintain the review aspect, President Rosengren, you wanted to change the last sentence there, "regular review" back to what was in August? Is that right?

MR. ROSENGREN. That's correct.

CHAIRMAN BERNANKE. The last sentence of paragraph 3 now says, "The Committee will regularly review the pace of its securities transactions and the overall size of the maturity extension program in light of incoming information." What we had in August was, "The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate," a simpler statement. Any preferences? Jim, do you have a preference? Narayana?

MR. KOCHERLAKOTA. I like Eric's suggestion.

MR. BULLARD. I'm happy with it, too.

CHAIRMAN BERNANKE. Are you okay? I hope this is not too complicated. Let's change the last sentence of 3 to the analogous sentence from August. Are there other comments, suggestions? President Lacker.

MR. LACKER. This removes the phrase "maturity extension program."

CHAIRMAN BERNANKE. Yes, it does.

MR. LACKER. We're going to have to figure how to communicate our name for this program.

CHAIRMAN BERNANKE. It's the MEP, clearly. You know how much attention they paid to LSAP, right? [Laughter]

MR. ENGLISH. It's going to be "Operation Twist" no matter what you say. [Laughter]

CHAIRMAN BERNANKE. I understand that.

MR. LOCKHART. But not "quantitative easing." [Laughter]

CHAIRMAN BERNANKE. We should have done statement A, which has both the MEP and the communications, so that we could have "Twist and Shout." [Laughter] Never mind. It wasn't my idea. Further comments?

In a moment we'll take a vote. Let me say that at the end of the vote, Brian, you're going to talk just a little bit about implementation?

MR. SACK. Sure.

CHAIRMAN BERNANKE. Following that, after the end of meeting announcements, we'll have lunch, and Linda, I believe, will give us a congressional update.

MS. ROBERTSON. I'm prepared to do so.

CHAIRMAN BERNANKE. She is prepared to do so. Please, are you able to give the statement?

MS. DANKER. We'll see. I'm starting with alternative B that was handed out. The first paragraph is the way it was except the second-to-last sentence starts, "Inflation appears to have moderated since earlier in the year," and then continues as it was.

Paragraph 2, unchanged.

Paragraph 3—we're keeping paragraph 3, dropping paragraph 3′, and the final sentence of paragraph 3 is being removed and replaced with the analogous sentence from the August statement that starts, "The Committee will regularly review the size and composition of its securities holdings," and so on.

Then paragraph 4 will begin with the sentence that starts, "To help support conditions in mortgage markets, the Committee will now reinvest principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities." Then, "In addition, the Committee will maintain its existing policy of rolling over maturing Treasury securities at auctions."

Paragraph 5 stands as is, and paragraph 6 stands as is minus the brackets.

CHAIRMAN BERNANKE. Okay.

MS. DANKER. Keeping what was in the brackets, just to clarify.

CHAIRMAN BERNANKE. Yes.

MS. DANKER.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
Governor Duke	Yes
President Evans	Yes
President Fisher	No
President Kocherlakota	No
President Plosser	No
Governor Raskin	Yes
Governor Tarullo	Yes
Governor Yellen	Yes

CHAIRMAN BERNANKE. Thank you. Brian, do you want to take a couple of minutes?

MR. SACK.[5] I will offer a brief description of how the Desk plans to implement the Committee's decisions regarding the SOMA portfolio.

Following recent practices, the Desk intends to release a statement with operational details on these initiatives at the same time as the release of the FOMC statement. A draft of the Desk statement is provided in the handout for your reference.

Let me begin with the $400 billion maturity extension program.

The Desk plans to distribute the purchases from this program across five sectors based on the approximate weights shown in the table contained in the statement. This distribution has been designed to extend the average maturity of the SOMA portfolio. For that reason, it allocates a much larger share of the purchases to longer maturities, including those beyond 10 years, than in previous asset purchase programs. Of course, this distribution could be altered if market conditions warrant.

In terms of selling assets, the Desk plans to conduct regular operations to sell Treasury securities with remaining maturities of three months to three years. Securities with less than three months to maturity will not be sold to provide the markets and the Treasury with greater certainty about the maturity profile of SOMA holdings. These operations will be structured to receive bids across a range of securities and to accept them based on their attractiveness to market prices. We will be selling roughly three quarters of the SOMA holdings in the eligible maturity range.

At this point, the Desk anticipates conducting 14 purchase operations and 6 sale operations per month. A schedule of both purchase and sale operations to be conducted over the following calendar month will be released on or around the last business day of each month. A schedule of operations expected to take place in October will be released on Friday, September 30.

Let me now turn to the agency MBS reinvestment program.

Principal payments from holdings of agency debt and agency MBS will be reinvested in agency MBS through purchases conducted in the secondary market. Based on current projections, the Desk anticipates that reinvestments will total about $200 billion by the end of June, thus resulting in an average monthly pace of purchases of $20 to $25 billion over that period. However, I should note that the prepayment rate on the MBS portfolio is quite uncertain in the current environment, and hence the actual pace of purchases could deviate meaningfully from our projection.

[5] The materials used by Mr. Sack are appended to this transcript (appendix 5).

> The Desk intends to conduct these purchases internally, rather than relying on an external investment manager. Recall that we had established this capability by the end of the earlier asset purchase program. We would expect to be active on most trading days, and purchase operations would be conducted through a competitive bidding process over an external trading platform. We will continue to rely on external firms for middle-office support and custodial services.
>
> In terms of other operational details, we anticipate that the purchases will be concentrated in newly issued agency MBS, as these securities have greater liquidity and are more closely tied to primary mortgage rates, although the Desk may purchase other agency MBS if market conditions warrant. We also would like the flexibility to use dollar roll transactions to facilitate the settlement of our transactions. The settlement conventions for agency MBS and dollar rolls mean that the SOMA balance may fluctuate around $2.6 trillion.
>
> Purchases of MBS securities will begin on October 3, 2011, and the current practice of reinvesting principal payments from agency debt and agency MBS in Treasury securities will be halted at that point. The Desk will continue to publish on the eighth business day of each month the planned amount of reinvestment purchases for the next month, but we will no longer be including a calendar for the reinvestment operations since we will be purchasing on most trading days in the secondary market. Thank you.

CHAIRMAN BERNANKE. Thank you. Any questions for Brian? President Lacker.

MR. LACKER. This is a question more generally about what conversations we've had with the U.S. Treasury and what we've gleaned from those about their debt management. Are they going to react? Do they pledge not to offset us? What do we know?

MR. SACK. We speak to Treasury regularly about debt management issues, and not surprisingly, we've been discussing that in the context of a maturity extension program in recent weeks. My understanding is that Treasury has no intention of reacting to our program in terms of shifting its issuance any time soon into longer-term securities because we're conducting the maturity extension program. You should keep in mind, though, that they are on a course right now that is extending the average maturity of their debt, and they've been doing that for some time, consistent with the recommendation of their borrowing committee. The weighted-average maturity of their debt will continue to extend, but that pace isn't going to accelerate just because we're doing the maturity extension program.

MR. LACKER. They're going to continue extending the maturity of what they issue while we're trying to reduce the maturity of what's in the hands of the public.

MR. SACK. That's right, but let me make a few more comments on that. The additional maturity extension that's going to be realized is already under way based on debt management decisions they've made to date, and my sense is that they've maybe reached the point at which they are ready to start to pull back from that objective. Yes, we will continue to see a lengthening of the weighted-average maturity given past decisions, but I think we'll see that lengthening begin to slow and at some point stabilize.

MR. LACKER. How does the magnitude of what you expect to be subsequent extension of the maturity of what's in the hands of the public due to their issuance compare with what we're doing with the maturity extension program?

MR. SACK. I believe the effects of the further extension that we expect would actually be larger than the effects of the maturity extension program that has been proposed today. A few things to note. One, that's already priced into the market. The weighted-average maturity of Treasury debt today is 62 months. As far as we can tell, the market expectation is that that's going to reach 70 months—another 8 months of extension—but we believe that's fully expected and priced into the market. Second, it doesn't seem that Treasury is intent on purposefully pushing beyond what's in the markets and, if anything, seems to be shifting perhaps in the other direction. And, third, we can think of these effects as being in place and then think about the FOMC's programs as trying to affect financial conditions around what would have been realized under Treasury's path.

MR. ENGLISH. That is what we did in the memo that was distributed to the Committee. We built in assumptions about what Treasury was up to, and looked at our program at the margin.

MR. LACKER. Right. You're telling me that there's a fair amount of uncertainty about what they're going to do.

SEVERAL. No. Not really.

MR. LACKER. Go to 70 or not?

MR. SACK. They've been clear that they will not be changing their strategy in response to our program. There's no ambiguity about that.

MR. LACKER. But you don't know what their strategy is?

MR. SACK. Their strategy is that they realize the weighted-average maturity will continue to lengthen, but that they're going to start, over time, to make adjustments that should cause that lengthening to slow and eventually to stop. They have not given a precise number of what their weighted-average maturity target is. I'm not sure if they have one at this point, and they're engaged in a very active discussion of these issues with their own borrowing advisory committee. I'm not sure. I don't think it's precisely settled in their mind exactly where they want to end up, but it is my understanding that they do not want to continue to lengthen indefinitely.

MR. LACKER. This contrasts notably with the first Operation Twist in which cooperation was fairly clear with the Treasury. We understood what they were doing with their portfolio and what we were doing with ours.

MR. FISHER. But, Mr. Chairman, this is a very delicate issue, and I think you're going to have to figure out if there's a way to do it when you put out the Frequently Asked Questions on September 26. There may have been virtues back in 1961 to doing it hand-in-glove. There could also be drawbacks to being perceived as doing it hand-in-glove now. You're going to have to carefully vet this wherever you vet these things to make sure that we don't look like we're setting this up.

CHAIRMAN BERNANKE. We have been very clear: We don't want to involve the Treasury in monetary policy decisions or monetary policy execution.

MR. FISHER. Yes, but I would address this in the Frequently Asked Questions that we provide.

CHAIRMAN BERNANKE. There was a *Financial Times* story, which I believe made the point that should the Federal Reserve undertake any kind of maturity extension program, the Treasury would not react to that. That's the appropriate thing we've asked them to do, and I've received assurances to that effect as well. Any other questions? [No response]

First, let me note that we'll have a special topic in January called "The Role of Financial Conditions in Economic Recovery: Lending and Leverage," which was a very popular winner among the FOMC participants and certainly is a topical issue. I want to thank the Federal Reserve Bank of San Francisco for agreeing to lead the preparations for that special topic. The next meeting is another two-day meeting, fortunately, Tuesday and Wednesday, November 1–2. Lunch is available, and for those who can stay, Linda Robertson will be providing a presentation. President Lockhart.

MR. LOCKHART. Mr. Chairman, there was such a call for contingency planning that November seems, at least under certain circumstances, pretty far away. Is there any thought in your mind as to how we can address that between meetings?

CHAIRMAN BERNANKE. You should help me, Bill. My understanding is that we expect to get the framework memos out exceptionally early in the intermeeting period.

MR. ENGLISH. We're aiming to do so, but we wanted to do so this past intermeeting period, too. Yes, we will try our hardest to get the material out in early October so that there will be plenty of time for people to think about it.

CHAIRMAN BERNANKE. If there are Reserve Bank contributions that would like to be made, please be in touch with Bill, and we'll try to coordinate additional materials.

MR. LOCKHART. The process sounds like react to memos and circulate views and essentially do it all that way between now and November.

CHAIRMAN BERNANKE. What else would you suggest?

MR. LOCKHART. Well, we may be overtaken by events. You never know.

VICE CHAIRMAN DUDLEY. Are you proposing a videoconference or something like that?

MR. LOCKHART. Yes. Something like a videoconference where we can have a spontaneous exchange of views as opposed to the formality of reacting to a memo and circulating that and then reacting to someone else's reaction, and so forth.

CHAIRMAN BERNANKE. We're certainly prepared to do that, either assuming we get early preparations or if the situation changes in a significant way. Governor Tarullo.

MR. TARULLO. Mr. Chairman, to draw a distinction, I think you've been referring to more conventional monetary policy contingencies. I believe that staff at the Board and the New York Fed have already been thinking about liquidity facility contingencies.

CHAIRMAN BERNANKE. Oh, yes.

MS. YELLEN. Is that what you were thinking of, liquidity and the like?

MR. LOCKHART. I really wasn't, in my mind, making a distinction. I'm just noting there's such a call, and November may be too late in some respects.

CHAIRMAN BERNANKE. Well, on the purely financial stability side, we have an ongoing LISCC, an Office of Financial Stability, and other coordination occurring on an operational daily basis.

MR. PLOSSER. Would it be inappropriate for the Board to have a meeting or a conference call so that we are filled in on what the Board staff is thinking in terms of the liquidity provisions and other things that might arise during such a time?

CHAIRMAN BERNANKE. Certainly, but again, the LISCC, for example, is a Systemwide committee, which in principle can report.

MR. LACKER. Not every Reserve Bank is on it.

CHAIRMAN BERNANKE. Not every Reserve Bank? Your point is taken. I don't know if Nellie is here. We will try to make sure that there is some kind of call at an appropriate time, particularly if there are any important developments.

MR. FISHER. Mr. Chairman, without giving offense, which I'm sure I will, I do think it's important that we all be on board with this, but we also have to be extremely mindful that none of this leaks out to the public, and that's what worries me.

CHAIRMAN BERNANKE. What?

MR. FISHER. If any of this contingency planning leaks to the public.

CHAIRMAN BERNANKE. Yes.

MR. FISHER. Again, I remind myself and everybody else that we have to watch this very, very carefully as we share what alternatives are being developed.

CHAIRMAN BERNANKE. There will be some minutes. That's inevitable.

MR. FISHER. We need to think about that then because we could scare the heck out of people.

CHAIRMAN BERNANKE. Again, the liquidity issues or the financial stability issues don’t have to take place in this particular context.

MR. FISHER. And we did it well during the crisis, and there was almost no leakage. So I just want to remind folks. I think it’s critical.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I want to thank Governor Tarullo for sharing with us that the Board and New York staff are working on liquidity.

CHAIRMAN BERNANKE. We will have a full interaction with the System and make sure that everybody is kept abreast. The meeting is adjourned. Thank you.

END OF MEETING