

**Meeting of the Federal Open Market Committee on
March 16, 2010**

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., on Tuesday, March 16, 2010, at 8:00 a.m. Those present were the following:

Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
James Bullard
Elizabeth Duke
Thomas M. Hoenig
Donald L. Kohn
Sandra Pianalto
Eric Rosengren
Daniel K. Tarullo
Kevin Warsh

Christine Cumming, Charles L. Evans, Richard W. Fisher, Narayana Kocherlakota, and Charles I. Plosser, Alternate Members of the Federal Open Market Committee

Jeffrey M. Lacker, Dennis P. Lockhart, and Janet L. Yellen, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

Brian F. Madigan, Secretary and Economist
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
Nathan Sheets, Economist
David J. Stockton, Economist

Thomas A. Connors, William B. English, Steven B. Kamin, Lawrence Slifman, Christopher J. Waller, 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 Bank Supervision and Regulation, Board of Governors

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

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

James A. Clouse, Deputy Director, Division of Monetary Affairs, Board of Governors

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

Sherry Edwards and Andrew T. Levin, Senior Associate Directors, Division of Monetary Affairs, Board of Governors; David Reifschneider and William Wascher, Senior Associate Directors, Division of Research and Statistics, Board of Governors

Michael G. Palumbo, Deputy Associate Director, Division of Research and Statistics, Board of Governors

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

Min Wei, Senior Economist, Division of Monetary Affairs, Board of Governors

Penelope A. Beattie, Assistant to the Secretary, Office of the Secretary, Board of Governors

Valerie Hinojosa and Randall A. Williams, Records Management Analysts, Division of Monetary Affairs, Board of Governors

James M. Lyon, First Vice President, Federal Reserve Bank of Minneapolis

Jamie J. McAndrews, Loretta J. Mester, and Harvey Rosenblum, Executive Vice Presidents, Federal Reserve Banks of New York, Philadelphia, and Dallas, respectively

David Altig, Craig S. Hakkio, Glenn D. Rudebusch, Mark E. Schweitzer, Daniel G. Sullivan, and John A. Weinberg, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Kansas City, San Francisco, Cleveland, Chicago, and Richmond, respectively

Giovanni Olivei, Vice President, Federal Reserve Bank of Boston

Joshua Frost, Assistant Vice President, Federal Reserve Bank of New York

Jonathan Heathcote, Senior Economist, Federal Reserve Bank of Minneapolis

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CHAIRMAN BERNANKE. I need a motion to close the Board meeting.

MR. KOHN. So move.

CHAIRMAN BERNANKE. Thank you. Well, today is kind of an important day. This is the first one-day meeting we have had in—[laughter]—some time. So let me just remind everybody to please be concise and to the point, so we can get done in time for the announcement.

Let's start this morning with Brian Sack's report on financial developments and system facilities. Brian.

MR. SACK.¹ Thank you, Mr. Chairman. Several broad themes have garnered significant attention in financial markets in recent months, including mounting concerns about sovereign credit risk, ongoing assessment of the strength of the economic recovery, and continued focus on the Federal Reserve's exit strategy. The net effect of these factors over the intermeeting period was to leave financial conditions modestly more supportive of growth.

As shown in the upper left panel of exhibit 1, market-implied expectations for monetary policy shifted lower since the last FOMC meeting, continuing the trend seen over the past several intermeeting periods. This reassessment has occurred against the backdrop of ongoing communications from the FOMC that the policy rate will remain "exceptionally low for an extended period." The current configuration of rates suggests that market participants do not see substantial risks of policy tightening until late this year.

Similarly, the Desk's survey of primary dealer economists showed that the average respondent placed the first policy tightening at right around year-end. The survey also indicated that dealers do not expect any major changes in the policy statement to be released today. Regarding the exit strategy, the dealers continue to anticipate that reserve-draining tools will be implemented two or three meetings before any increase in the target federal funds rate and that asset sales will take place after the target rate increase, if at all. The Desk continues to make substantial progress in preparing for reverse repurchase agreements, including the publication of criteria for money market mutual funds to participate in the program, as I indicated in a memo to the FOMC from two weeks ago.

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

Even though market pricing suggests that the FOMC's exit from current rate levels is a ways off, investors seem sensitive to any news related to the exit. For example, the increase in the discount rate came as a surprise to some, despite the fact that the FOMC minutes published a day earlier said that such an increase would "soon be appropriate." This prompted discussion about the likely path of the Fed's exit. The announcement that the Treasury would increase the size of the SFP back to \$200 billion was also widely discussed in this context. The amount of focus on these two events highlights the market's sensitivity to the issue of exit, although the net responses of asset prices were muted.

Although policy expectations were marked down slightly, Treasury yields edged higher over the intermeeting period, as shown in the upper right panel. This pattern does not appear to be driven by perceived inflation risk. Indeed, some of the concerns about inflation risk that had been priced into Treasury yields appear to be diminishing, as suggested by the decline in break-even inflation rates from their recent highs, shown in the middle left panel. Moreover, measures of implied volatility and payer skew on longer-term interest rates have come down, presumably for related reasons.

Government securities markets around the world have also had to contend with a greater focus by investors on sovereign credit risk. As shown to the right, investors have been quite concerned about default prospects in Greece, and some of those perceived risks have spilled over at times into other countries in the European periphery. Greece managed to placate those concerns to some degree by announcing several important steps towards fiscal austerity that, along with a statement of support from the European Council, enabled Greece to issue €5 billion of new debt. However, Greece still faces some near-term hurdles, as it has to issue a considerable amount of additional debt in coming months. Nathan Sheets will discuss these developments in more detail in his briefing.

Regardless of how the situation in Greece plays out over time, it has precipitated a wider discussion about sovereign credit risk across all major economies. At this point, however, investors' concerns about U.S. sovereign risk appear to be limited. Indeed, as shown in the bottom left panel, CDS spreads on U.S. Treasuries have not widened in any meaningful way. There has been some widening in the CDS spreads for U.S. states that face challenging fiscal situations, but those pressures have not passed through strongly into the cash market. The municipal bond market continues to benefit from strong investor inflows, spreads on municipal bonds have narrowed, and issuance by municipalities has been solid, despite the continued deterioration of fiscal conditions in various states.

The events surrounding Greece appear to have had an impact on currency values, contributing to the euro's weakness against the dollar, shown in the bottom right. In addition, other countries facing fiscal challenges, such as the U.K., also saw their currencies weaken against the dollar.

This intermeeting period included several notable events for the Federal Reserve's liquidity facilities. A number of the facilities closed on February 1, including the PDCF, the CPFF, the AMLF, the TSLF, and the currency swaps with foreign central banks; in addition, the TAF conducted its last auction on March 8. Accordingly, all of the short-term credit facilities that were introduced during the crisis are now inactive, in that there will be no additional operations. The outstanding credit provided by those facilities, shown in the upper left panel of exhibit 2, has reached minimal levels and, by June, will be confined to just the primary credit facility.

The markets have adjusted well to the withdrawal of this credit. As shown by the LIBOR-OIS spreads to the right, there has been no evidence of any reemergence of market strains as the facilities have wound down.

Another facility that is approaching its end is the TALF. The final subscription for non-CMBS took place on March 4, and the final subscription for legacy CMBS will occur later this week. After that subscription, the only remaining operations will be in new-issue CMBS—an asset class for which there are currently no outstanding TALF loans. Subscriptions in new-issue CMBS will continue until their scheduled end date in June.

As shown in the middle left panel, the cumulative volume of borrowings from the TALF has expanded fairly steadily in recent months. However, the volume of repayments of TALF loans has also risen, as borrowers have been able to secure funding from other sources on more favorable terms. As a result, the net amount of outstanding credit from the TALF has leveled out to some degree and currently stands at around \$50 billion. That balance will presumably decline going forward as repayments continue.

Securitized credit markets have not shown much strain from the termination of the TALF program. As indicated to the right, spreads on ABS remain tight. Moreover, ABS issuance has been fairly strong, and only about one-fifth of the issuance this year has been financed by the TALF. A survey of TALF-eligible ABS issuers suggested that the expiration of the TALF will not significantly affect the use of securitization as a source of funding for auto loans and credit cards. Nevertheless, the securitization market faces several challenges going forward, including uncertainty about the balance sheet treatment of the assets supporting ABS and the consequent impact on the cost of funding through securitization.

Other risky asset prices continue to fare well, supported by decent earnings and ongoing evidence that an economic recovery is taking hold. Major U.S. equity indexes advanced about 5 percent over the intermeeting period, as shown in the bottom left panel, and measures of implied volatility on equity prices dropped back sharply. Corporate bond spreads, shown to the right, narrowed modestly over the intermeeting period.

Your next exhibit focuses on the Fed's large-scale asset purchase (LSAP) programs. We are nearing the end of the programs. MBS purchases are on track to meet the \$1.25 trillion target, with only \$20 billion of additional purchases needed to reach that goal. Agency debt purchases have fallen somewhat behind the schedule that would be needed to reach \$175 billion. Our purchases currently stand at just over \$170 billion, and we have only one more operation scheduled, which is likely be around \$1 billion in size.

Even as our purchases have slowed, the spreads on agency debt and MBS have remained tight, as indicated in the middle panels. This pattern has led market participants to reassess the vulnerability of the market to an increase in rates as our purchases end. The current view among market participants is that the MBS spread may widen only marginally, by 10 basis points or so, as our purchases come to a close. That estimate is down substantially from their earlier estimates; indeed, just six months ago, the average response in one of our surveys was 60 basis points. We continue to believe that the LSAPs helped to lower longer-term interest rates, and that those effects will only slowly unwind as the stock of the Fed's holdings gradually declines.

With our purchases ending, it is a good time to assess how the program has left the functioning of the MBS market. As shown in the bottom left panel, our holdings of MBS represent a sizable portion of the outstanding supply across the coupon stack, particularly in the most active coupons. Over time, the share of our holdings will decline, as we receive prepayments and as new issuance of MBS comes to the market. However, this decline has yet to materialize, despite the slower pace of our purchases, because of the tepid pace of new issuance.

Overall, the market has had to adjust to our large presence—and particularly to having less tradable float than it would in our absence. As I highlighted in my last briefing, our holdings have contributed to the unusually large volume of settlement fails in the market in recent months, shown in the bottom right panel. However, this situation has improved notably in recent weeks. Moreover, trading volume in the MBS market has remained healthy even as our own transaction activity in the market has faded. Thus, while our presence has caused some strains, the market seems to be functioning with decent liquidity in most areas.

Your final exhibit discusses the Fed's balance sheet and the issue of whether the FOMC may want to redeem its maturing holdings of Treasury securities. The overall size of the balance sheet currently stands at \$2.3 trillion. As shown in the upper left panel, about \$2.0 trillion of that is associated with the outright holdings of securities in the domestic SOMA portfolio. These holdings have expanded rapidly with the purchases of agency debt and agency MBS; in addition, our Treasury holdings have returned to near \$800 billion.

The expansion of the SOMA portfolio has been accompanied by a notable shift in its risk characteristics. Most important, as shown in the upper right panel, the

duration of the portfolio has jumped from an historical level of between two and three years to more than four years, with the current reading indicated by the red square. Our Treasury holdings have the longest duration of all of the asset classes held in the portfolio, at around five years, as shown by the blue line. The duration of our MBS holdings is around four years, although I should note that measuring this duration requires one to use a prepayment model and hence is only an estimate. The duration of the agency portfolio, at three years, is the lowest of the three asset classes.

The changes in both the size and the duration of the SOMA have resulted in a substantial increase in the risk of the portfolio, at least on a mark-to-market basis. Under the current portfolio, a 100 basis point upward shift in the yield curve would generate mark-to-market losses on the order of \$100 billion. The comparable figure from July 2007, when the portfolio was regular-sized and concentrated in Treasuries, is about \$20 billion. Thus, the duration-related exposure of the portfolio has increased fivefold. In addition, the portfolio has substantial exposure to prepayment risk that it did not previously have. Of course, removing this duration and prepayment risk from the market was part of the purpose of the large-scale asset purchases, in order to shrink the risk premiums on the assets purchased.

The FOMC will have to make decisions that affect how quickly its asset holdings will decline, including the policy for redeeming maturing SOMA holdings. The Desk is currently employing an interim strategy of allowing SOMA holdings of agency debt and MBS to roll off the balance sheet, without reinvestment, as those securities mature or are prepaid. To date, about \$3 billion of our agency debt holdings have matured, and about \$80 billion of our MBS holdings have been prepaid. As shown in the middle panel, if this interim strategy is maintained, we would expect to shed another \$250 billion of asset holdings by the end of 2011 and \$545 billion by the end of 2015.

For Treasury securities, the current practice of the Desk is to reinvest all maturing holdings, but the FOMC could decide instead to implement a strategy of allowing some or all of its Treasury holdings to mature without reinvestment. Such a policy, if applied to all maturing Treasury holdings, would produce a runoff in the portfolio of \$139 billion through 2011 and \$436 billion through 2015. Note that the runoff through 2015 is comparable in size to the declines in agency debt and MBS holdings.

The staff memo circulated ahead of this meeting highlighted several potential benefits associated with redeeming Treasury securities. First, redemptions would reduce the need to drain reserves through other tools such as reverse repurchase agreements and term deposits. This could be seen as advantageous if the FOMC does not have full confidence in the capacity of those draining tools or in the efficacy of interest on reserves. Second, redemptions would lower the overall interest rate sensitivity of the portfolio. Third, by reducing the balance sheet to its typical size more quickly, redemptions could underscore the FOMC's commitment to price stability. And lastly, even though the FOMC ultimately plans to hold a portfolio of

Treasury securities, redemptions would give it more flexibility to rebuild the Treasury portfolio with the most appropriate structure.

Treasury redemptions raise some potential concerns as well. The primary concern may be that redemptions could hasten the reversal of the portfolio balance effects that were associated with the large-scale asset purchase programs. Our empirical work on this issue suggests that the effects of the incremental increase in Treasury supply on longer-term interest rates would likely be relatively small. In addition, some expectations for Treasury redemptions may already be reflected in yields, further limiting the scope for a market response. Indeed, in our recent survey of primary dealers, respondents saw a 28 percent chance that the FOMC would adopt a policy of redeeming all Treasury securities by the end of the second quarter, and another 16 percent chance that it would begin redeeming some Treasury securities over that period. However, with so much market focus on the Fed's exit, it is possible that a decision to move forward with Treasury redemptions would have a larger effect than we are anticipating, especially if it were seen as indicating an inclination to exit along other dimensions.

A second concern is that redemptions would limit the scope of the securities lending program that the Federal Reserve currently offers, by eliminating our holdings of on-the-run and other recently issued Treasury securities. This change could potentially have negative implications for the repo market in specific Treasury securities. However, we judge that any detrimental effects on market functioning would be limited, in part because of the ample supply of Treasuries in the market.

The expected path of the size of the domestic SOMA portfolio under the redemption policy is shown by the darker line in the bottom left panel, compared to the expected path under the current redemption policy, the lighter line. As can be seen, the more aggressive redemption policy causes the size of the portfolio to decline more quickly. However, by 2015, the portfolio reaches a point at which excess reserves are back to minimal levels, and hence the portfolio has to begin growing again to accommodate the ongoing expansion of currency and other factors. At that point, the Desk would presumably still be allowing agency and MBS holdings to run off and would be purchasing Treasury securities to make up for that runoff and to produce the overall portfolio expansion shown. Thus, the redemption strategy involves some churning of the Treasury portfolio, allowing our holdings to decline for several years and then rebuilding them more aggressively thereafter.

Lastly, it is worth considering an alternative redemption approach under which the Desk would roll maturing holdings into shorter-term Treasury securities. There are some operational impediments to this approach, unless the FOMC is willing to acquire the shorter-term securities in the secondary market. In particular, based on longstanding interpretations of the Federal Reserve's authority to purchase securities, the amount of newly issued securities that the Desk can acquire at a Treasury auction is limited to its holdings maturing on the day of the auction settlement. The practical implication is that it is difficult to roll over maturing Treasury coupon securities into

Treasury bills, since coupon securities mature at mid-month or end-month dates, while bills settle every Thursday.

The table to the right highlights this issue. The amount of Treasury redemptions through 2011 under a full redemptions strategy is \$139 billion, consistent with what was reported in the middle panel. If the FOMC reinvests into bills whenever possible, it can only roll over \$36 billion of its maturing holdings, leaving net redemptions still sizable at \$103 billion. The capacity to reinvest goes up sharply, though, if the strategy is expanded to allow for reinvestment into shorter-term notes, given that those are issued on the mid- and end-month schedules of the maturing coupon securities. If two-year securities are included, an additional \$71 billion could be rolled over, bringing net redemptions down to \$32 billion. If three-year notes are included, all maturing holdings could be rolled over, leaving zero net redemptions. Of course, if the FOMC were willing to purchase securities in the secondary market, it would have the flexibility to shift all of the maturing holdings into Treasury bills, without the constraints presented in this table.

Any of these strategies would reduce the duration of the SOMA portfolio and hence shed risk. However, it is worth asking what the advantage of these strategies would be over a full redemption strategy. The primary difference is that these strategies leave larger amounts of reserves in the system over the near term. While the shorter maturity profile of Treasury holdings would provide the FOMC with flexibility to withdraw those reserves relatively quickly in the future by allowing holdings to mature, that option, even if fully exercised, would only bring reserves down to where they otherwise would have been under a full redemption strategy. Thus, the partial redemption strategy would only seem to have clear advantages if the FOMC felt it was important to keep more reserves in the system for now, or if it were part of a longer-run plan to restructure the Treasury holdings in the SOMA portfolio. Thank you. That concludes my prepared comments.

CHAIRMAN BERNANKE. Are we going to take questions now or go on to the next report?

MR. SACK. It's up to you.

CHAIRMAN BERNANKE. Jamie, do you want to make your report?

MR. McANDREWS. Thank you, Mr. Chairman. The last time that reserve collateral accounts, or RCAs, were discussed, at the November 2009 FOMC meeting, a decision was made to delay further operational work on them to avoid any contention for resources with the implementation efforts for the term deposit facility. As the TDF work subsequently progressed, an RCA planning group was convened. This group consists of staff from all the relevant System groups and is considering in detail the operational and policy issues associated with their implementation. This group has explored all the expected operational implications of establishing and

managing RCAs and has found no major impediments to their implementation. In particular, the group has found that RCAs would likely be straightforward to implement and operate using existing Federal Reserve platforms with only relatively minor changes to accounting and reserves procedures. The legal aspects of RCAs are clearly an important element in their creation, and Board and Federal Reserve Bank of New York attorneys have written a draft agreement under which the accounts and their transactions would be governed. The degree to which RCAs would fulfill their goal of a tighter link between interest on reserves and market rates is uncertain; past interviews with market participants are encouraging but not definitive. I now turn to a summary of the RCA policy goal and how RCAs would be expected to achieve their goal; my remarks summarize a memo that was distributed to FOMC members last Wednesday.

The large negative spread between the interest rate paid on excess reserves and the effective federal funds rate has raised concerns about the Federal Reserve's ability to remove monetary policy accommodation smoothly using interest on reserves alone. One explanation given for the size of this spread focuses on the limited nature of the competition among buyers of funds sold by the government-sponsored enterprises, or GSEs. The GSEs, who are ineligible to earn interest directly from the Federal Reserve and are significant sellers of federal funds, considerably reduced their lists of approved counterparties and credit lines starting in September 2008. As a result, competition for their funds has fallen, and buyers are able to purchase funds from GSEs at rates well below the IOER rate.

If RCAs were made available, GSEs and potentially even some banking institutions that lend at rates below the IOER rate would have the option of selling funds to banks that owned RCAs, where the funds in such accounts would serve as collateral for the repayment of the principal amount of the loan. The dramatically reduced level of credit risk on these transactions could prompt GSEs to lend to an expanded set of counterparties for potentially larger amounts, thereby improving the competitive environment for the sales of funds. Under more competitive conditions, trading in federal funds would be expected to move closer to the IOER rate.

Information obtained through a limited number of staff conversations with two of the GSEs suggests a strong interest on their part as lenders in the RCA concept, but conversations with a small number of depository institutions have not yielded much concrete information about their potential interest as borrowers under these arrangements. Thus, a significant outstanding question is the likely extent of participation of borrowers in RCAs, which could ultimately determine their impact on the federal funds rate. Notably, however, all of the interviewees felt that RCAs would narrow the spread between the IOER rate and the federal funds rate. One possible drawback of RCAs is that, if they work as intended, there would likely be fewer sales of fed funds by GSEs to banks. As transactions of this type currently dominate the brokered trades used in the Desk's calculation of the effective federal funds rate, RCAs could make measurement of the effective federal funds rate less reliable.

One question that should be addressed is whether the RCA program would be needed if the Fed plans to conduct reverse repos with the GSEs. The following reasoning suggests that RCAs would indeed continue to serve their policy objective in that case. First, it is not certain that an RRP program arranged by the Fed, where we expect to conduct term RPs with periodic auctions to settle on T+1 via the triparty repo mechanism, would necessarily be structured to fit with the GSEs' particular investment preferences. GSEs clearly prefer a same-day settlement, overnight option, which we are unlikely to accommodate with RRP. In addition, because GSEs cannot incur daylight overdrafts, they would prefer RCAs at a given interest rate because they control the timing of return of funds, while in the triparty repo mechanism they have less control. It is also not clear that GSEs would necessarily be able to participate in RRP on the scale they would desire. GSE lending volume has fluctuated between \$50 and \$100 billion during the past six months and appears to vary by \$10 to \$20 billion in a typical month. RCAs may be better suited to handle such short-term fluctuations in supply than RRP, which are targeted toward less volatile supply. It is also not clear what the long-run disposition of an RRP program will be, in terms of size, whereas RCAs represent a change in the account framework that would be expected to last as long as there was market demand for the product, regardless of what we might prefer to do with discretionary operations. Finally, RCAs put their use at the discretion of the seller of funds, whether it be a bank or a GSE, while RRP will be conducted with a specified dealer, money market fund, or GSE counterparty at the Fed's discretion.

Staff recommends that policymakers ask the planning group to proceed with the following steps: Complete the necessary legal agreements; enter into discussions with the FDIC regarding the treatment of RCAs in bank resolutions; share the term sheet of the legal agreements with GSEs on a confidential basis to allow them to write the bilateral legal agreements that they would need in order to enter into RCA arrangements with depository institutions; and, once the RCA proposal is made public through the publication of the minutes of the March FOMC meeting or another vehicle, engage the GSEs and their possible counterparties as needed to better determine their interest in entering into RCA agreements.

The planning group would expect to be able to report back at the April FOMC meeting, and if the RCAs appear to be desired by GSEs and their counterparties, the group would recommend going forward with publishing a notice for public comment to amend Regulation D prior to a final decision to make RCAs available. Thank you, Mr. Chairman. That concludes our prepared remarks.

CHAIRMAN BERNANKE. Thank you. Before we continue, Vice Chairman, you had an introduction to make?

VICE CHAIRMAN DUDLEY. Yes. I just wanted to introduce Joshua Frost—he's sitting between Brian Sack and Jamie McAndrews—from our Markets Group in New York.

CHAIRMAN BERNANKE. Thank you. The staff circulated some questions for discussion before the meeting. Before we go into Q&A and any views that people want to offer, I just want to make sure we understand what is being asked today. First, on the portfolio, I assume that we want to know if there are any objections to continuing with the redemptions of the agency securities. That's the current policy.

MR. SACK. Right.

CHAIRMAN BERNANKE. On Treasury redemptions, my understanding is that you do not need an answer today and that you would like to hear any feedback, but that this would be a decision to be taken in April or at a subsequent meeting. What is the staff's preference on that decision?

MR. SACK. I think our intention was certainly at least to start a discussion of the redemption issue. Whether the Committee wants to reach a decision now or at a later meeting—it's fine, because either one could be implemented. There may be reasons to wait, but maybe we can get into that in the discussion.

CHAIRMAN BERNANKE. Okay. And then, thirdly, on the RCAs, I think you're looking for some approval today to continue with those preparatory steps that you mentioned.

MR. McANDREWS. Yes, Mr. Chairman, and that would also involve essentially making the concept public to facilitate the discussions with the GSEs and depository institutions. But then we'd report back to the Committee regarding the outcome of all of those discussions, at which time we'd have a more precise view on how the market would receive RCAs.

CHAIRMAN BERNANKE. With that understanding, let me open for the floor for any questions. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Can you offer an explanation of the tightening of the gap we've seen just in the last few days between the fed funds rate and IOER rate?

MR. SACK. I didn't mention that, but I think that is an interesting and potentially important market development. Overnight interest rates have been somewhat firm. Both the federal funds rate and the Treasury GC repo rate have drifted up at times into the 15 to 20 basis point range, which, based on historical behavior of those rates relative to the level of excess reserves, looks anomalous—it looks surprisingly firm. We don't necessarily have a strong explanation for why that's taking place. Some have pointed to the supply of Treasuries coming back into the market from the SFP, but I think we would be surprised if that effect were that big. Others have pointed to more idiosyncratic factors—initially the month-end and, more recently, Treasury settlement days. So I think we would like to take some more time and see if the rates settle back down into that expected range before drawing too much inference from it.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I have a couple of questions. First, on the Treasury redemptions, I'm struck that this is brought to us in isolation. At the last meeting we talked about a range of strategies and a range of sequencing, and yet here you're asking us to think about this in isolation. You folks say there is something like a 10 to 15 basis point effect on yields. What if I said, "Let's not redeem Treasuries but sell an equivalent amount, follow an equivalent path, of MBS"? What would the effect on yields be?

MR. SACK. The staff generally thinks of the LSAPs as arising from removing the duration and other risks from the market. So, in that sense, a credible complete commitment to sell only that amount of MBS, something equivalent to the Treasury redemptions, should have effects that are fairly comparable in size. There are a few differences. Selling MBS puts not only duration back to the market but also prepayment risk, and it also has different characteristics. I think there's perhaps some sense that the effect is slightly bigger for MBS, but it's presumably in the same ballpark.

I think an issue with asset sales is whether the FOMC would be willing to commit strongly to a gradual pace of sales. An advantage of redemptions is that the market can look at the portfolio and have an estimate of how quickly the actual holdings would run off, and it's credible if you are in a regime of only redeeming securities—that puts a limit on how quickly the duration gets reduced. So the issue with asset sales is that, unless there's an ironclad commitment in terms of the pace, the markets may always worry that the sales could end up being larger than indicated, and it would price that risk factor.

MR. LACKER. How did we do with our commitment last year? Did they view that as a relatively ironclad commitment to a certain pace of purchases? It didn't seem that there was a lot of uncertainty or that the market was terribly troubled by the prospect that we would stop selling or start buying more.

MR. SACK. Right. But there was conditionality attached to the purchase program. And I think the issue in a program of sales is this: If the Committee would want that same kind of conditionality and flexibility, that may be seen as a risk factor to the markets, and they may price some risk of more rapid sales that would be more disruptive.

That's the issue. We've talked about this in past meetings, namely, that redemptions in some way are a commitment device to shed the portfolio only gradually. And if you could achieve something equivalent through commitments, presumably you could do something similar through asset sales.

MR. LACKER. So you don't think it's infeasible for us to achieve that level of commitment.

MR. SACK. I don't think it's infeasible, but I think you have a tradeoff between wanting to retain flexibility and at the same time creating a perceived risk, at least, in the markets.

MR. LACKER. More broadly, I'm drawn to the idea of thinking about what reserve balance path we want and then choosing among a variety of ways to achieve that. I'd feel more comfortable thinking about redemptions in that context.

Regarding the RCAs, last week one of the GSEs, Fannie Mae, announced that it was dropping something like a dozen or so counterparties from its list of counterparties. To me, this seems problematic for the theory of the usefulness of reserve collateral accounts, because the theory is that risk considerations lead the GSEs to limit the number of counterparties, and yet that's costly to them because the resulting diminution of competition leads them to earn less on their invested funds. So here they are voluntarily shedding a bunch of counterparties, which presumably is going to lead to their earning less on their funds. And this is happening in an environment in which the broad trend is that institutions are getting less risky, not more. Some of these institutions are less risky than institutions that are still on their counterparty list. So I'm wondering how you'd square that observation with your theory.

MR. McANDREWS. The observation is that they are concerned about the risk. It's not necessary that they can unilaterally change the competitive conditions that they face. So the fact

that they shed almost half of their counterparties after September 2008 is consistent with their being very concerned about their risk. The questions are whether any one individual GSE can change competitive conditions sufficiently to get higher interest rates, and what is essentially the elasticity of the interest rates that it would face if it expanded its counterparties. That does not, however, suggest that it wouldn't be beneficial to both the GSEs and, more importantly, the market for funds altogether, if there were a more competitive environment for the bidding for funds. The Federal Reserve is paying 25 basis points to the banks for holding this risk-free asset, and that is not getting passed on, through a competitive mechanism, to nonbanks. The RCA program is attempting to achieve that. No individual GSE can affect competitive conditions very much by adding or dropping one counterparty.

MR. LACKER. The theory is all built on this restriction to the number of counterparties. I don't see how arbitrarily adding counterparties is going to improve their competitive position in the model you wrote down, right? I just don't see how they're unrelated.

Another observation that I think is relevant here is that, at the same time, Fannie Mae approached a large Carolina-based institution to increase the amount of overnight fed funds lending it would do with the institution from \$500 million to \$5 billion, and Fannie Mae is doing this at 5 basis points. This isn't brokered, so it doesn't enter the effective fed funds calculation, but I noticed that yesterday's expected fed funds rate was around 20 basis points. To me, this suggests that there's a lot of other stuff going on in the market: First, that leverage constraints could well be binding—there's something limiting banks' willingness to bid aggressively for funds to drive up the rate that Fannie Mae pays; second, that there's some sort of relationship—people do business with Fannie Mae across a broad array of products and services, so the funds rate might not be a particularly market-driven rate or a rate determined in isolation. I also note

that GSEs are active in the repo market and have an effect there and have the ability to arbitrage those two choices. And the funds rate is at about the same level as the RP rate.

More broadly, I think we ought to take two steps back and ask why we care about the effective funds rate. The staff mentions two reasons. One is as a measure of banks' marginal opportunity cost of funds. If that's the purpose it was serving well before the crisis, let's take a step back and ask how to measure that. Presumably, there still exists a bank's marginal opportunity cost of funds. The natural question seems to be, "Why isn't IOER the best estimate of that"? The staff also mentions a tighter link to IOER. I'm not quite sure why we care about that per se. Our quantitative easing has driven down market rates, so you'd expect a broad array of market rates, including RP rates, to be driven down, and that pulls down the fed funds rate. I'm not sure why we want a technical measure to undo that.

We have the effective fed funds rate, a measure of bank's marginal opportunity cost of funds, and dramatic changes in the policy regime make that a much less perfect measure. It seems that we're trying to make a structural fix in order to get that measure what it used to measure. I think it makes more sense to take a step back and ask, "How do we want to measure this best?"

If you look at the effective fed funds rate mechanism, too, it's sort of antiquated. We take rate and volume data from a set of brokers—it's just a fraction of the market—and the volume is relatively small. People can move transactions out of brokers or into brokers and affect the rate. I heard a rumor that Citibank is unwilling to take trades through brokers at less than 10 basis points, but they'll do it if you call them up. I don't know what that's about. If we really want to measure the funds rate more accurately, we could ask for everybody to report all

fed funds trades, right? We could put a new transaction code in Fedwire. So this just doesn't seem to be solving the right problem, and that's my reaction to the RCAs.

CHAIRMAN BERNANKE. So if the difference between the IOER rate and the market rate doesn't matter, then we should just raise the IOER rate and ignore all of these reserve-draining issues. Yes?

MR. LACKER. I don't think that building the mechanism is worth doing. Now, I'm not saying we ignore the fed funds rate. I don't think we ignore the RP rate. We don't ignore commercial paper rates. We don't ignore a lot of rates. If we want the fed funds rate to be close to the IOER rate, making reserves scarcer seems like a logical strategy, and I think that would help.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I have two distinct questions, and one of them is on the RCA. In part my comments are somewhat sympathetic with President Lacker's, I think. For those of us who are not really sure, it's a very confusing issue. I don't want to give up on the funds rate spread per se. I guess you could say, "If we wanted the funds rate to be firm at 25 basis points, we should drain reserves." That's a little further than I would think we would want to take this.

From a first-order standpoint, it seems to me that the GSEs have a bunch of funds. In the first-order effect, they are lying dormant, and they're not allocated, and maybe they're getting five basis points or maybe they're not getting anything. In this proposal, those dormant funds, on which they're getting five basis points from a bank, then get placed with the Fed and earn the IOER rate. The GSEs then get part of that surplus. That's not allocative for credit. That's just giving the GSEs a gift.

The paragraph on what the implications are for other financial markets depends on that constraint not being slack. So those funds just stay in the same place. I don't think that this has any real effect. That's really my question: Is it allocative? On top of that, I was surprised by the commentary that this is going to make the brokered market seem more idiosyncratic. I thought it meant that the brokered market would give us a better idea of what the marginal investor cost actually would be. I wasn't expecting that. Is that off base?

MR. McANDREWS. Your point about the allocation of rents between the GSEs and the banks is well taken. But the point of the RCAs is to create a competitive environment for the purchase of funds generally. And this will set a harder floor on rates as conveyed by the IOER rate. Again, the problem is essentially that the Fed is paying 25 basis points, and yet that monetary impetus is not being passed on to nonbanks generally. In a frictionless banking system, the funding rate for banks would be bid up to 25 basis points. That underlies Jeff's comments that the IOER rate should be the funding rate of banks. In fact, it's the rate that banks earn on a certain asset, but through competition we would expect the funding rate to be equal to the IOER rate. In fact, it's well below the IOER rate now, and so RCAs are intended to make the link much tighter.

Another point is with regard to the volatility of that spread between the funds rate and the IOER rate. With a more competitive environment at such high levels of reserves, we expect very little volatility between the market rates and the IOER rate, such as we've seen just recently.

Finally, on measurement, and perhaps Brian can talk about this, we are considering better ways of measuring market rates generally, and we expect that the RCA would lead to higher market rates not just in the measured effective federal funds rate but in repo rates and euro dollar rates.

MR. EVANS. I just don't see that channel between markets in your analysis. That was my basic point. It seems to me like the competitive channel is blocked because the funds rate channel is still largely a slack constraint. Maybe as interest rates go up, it would tend to bite a little bit more.

MR. McANDREWS. We discussed it. At current rates of euro dollars and RPs, with RCAs banks would certainly start borrowing euro dollars and RPs. That would increase demand in those markets and lead those rates to rise as well. So that's a fundamental linkage between those market rates.

MR. EVANS. If people want to borrow these funds, why don't they go to the GSEs and offer 10 basis points?

CHAIRMAN BERNANKE. That's the problem. I think it is allocative, because IOER is restricted—there's a barrier, in that IOER is essentially restricted to banks. Banks are not doing the arbitrage of relating that IOER rate to other money market rates. This reduces the barrier, essentially allowing other money markets to be tied more closely to IOER. It should transmit the effects of IOER more strongly through other money markets. That's the intention.

MR. EVANS. Okay. Let me move on to my second question. It has to do with Brian Sack's discussion. I think I heard you say the survey of the dealers on the effect of our MBS purchases had changed from 60 basis points to 10 basis points now, and I don't think I heard that there was a change in the path of purchases. Does that mean that they just had a very bad guess initially? If that's the case, are there other aspects of our analysis where this would have some implications for how we estimate the effects of our LSAPs? The staff estimate of the effect is 80 basis points for the entire program and, if we adopt a Treasury redemption strategy, 20 basis points. Does that change our thinking on that at all?

MR. SACK. For the first part of the question, I think the answer is yes, they had a bad guess. And they essentially just gradually whittled down that guess over time as the effects didn't materialize. We sat at the table talking about when we would expect to see these effects, and they just never came, so they gradually shrank their estimates.

In terms of what it means for how we assess the program, the fact that the market may not react to our moving away from the LSAPs could have two interpretations: One is that the LSAPs didn't do anything; the other is that the effect of the LSAPs was mainly through the stock of our holdings. The staff, at least, puts the weight on the second argument. The flow effects are smaller than we thought. The stock effects are probably still there. We believe they are there from various types of empirical evidence. And, of course, that has important policy implications—it means that the effect on long rates isn't going to reverse quickly; it's only going to reverse gradually as the stock of our holdings diminishes.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Mr. Chairman, I want to tie the two together because I actually am concerned not by the presenter, Brian, but by the content of his presentation. As exhibit 2 shows, all of those things we set out to accomplish, we did and we did well. Central bankers should never pat themselves on the back, but I think those are all positive outcomes. What bothers me is exhibit 4, chart 19. According to the memo Brian sent out earlier, we will wind up with 69 percent of our portfolio concentrated—I'm talking about the asset side of our balance sheet—in GSE securities.

Mr. Chairman, you expressed this eloquently in your testimony, and all of us have repeated it, and, Brian, you repeated it this morning. You used the word "ultimately." I'm wondering when "ultimately" is in terms of getting back to having an all-Treasury portfolio.

We're stuck with a massive portfolio of GSEs. Speaking personally, I don't want to be there at all. I'm concerned that we have somehow avoided the question; and, in fact, through statements that are being made before we have complete unanimity at this table or at least agreement at this table, we're saying we're not going to be selling GSE securities until we raise rates and other things to that effect. This little yellow section here in that chart and even more dramatically in the table and the pictures you provided in your briefing memo raise my question: When is "ultimately"?

Second, in the excellent briefings you've provided and the Board briefing that was provided yesterday, which was superb, we note that there's pent-up demand for GSE securities. We've taken that market away. So my question is: If most managers are underweight MBS, why don't we sell to them and take advantage of it? I'm all for Treasury redemptions, by the way, but why are we, in a sense, putting Treasuries before MBS? That doesn't make sense to me. I'd be interested in the Desk's answer. If, indeed, we have pent-up investor demand, would you give us some sense of how serious that is?

I also have a comment that links to the issue of RCAs. RCAs have the benefits that have been outlined. But I'm also looking at some of the negatives, which you point out in your paper. It will probably shrink the federal funds market. That diminishes the role of the FOMC to a degree, at least given the way we used to operate. And a super cynic would say not only were the GSEs accomplices to the housing and financial crisis—we were cleaning up that mess by buying up that portfolio, as we have particularly in two areas of the maturities spectrum; we are at 80 percent of the market—but now we're also handmaidens to cleaning up, in a sense, the mess they are creating in the fed funds market.

So I'm very uncomfortable—and I want to get this out up front—with the buildup in GSE holdings. I'd like to get a sense from the Desk of what is the resolution and what does the word “ultimately” mean. Second, I want to suggest that we go *very* slowly on this RCA concept. There's a key statement in the very good paper that you wrote, where you say this is a “permanent modification to the reserve account framework.” A permanent modification to the reserve account framework to me warrants, Mr. Chairman, a great deal more discussion than just saying “go ahead and continue the process.” I have mostly made a statement, but I have also asked a question. Brian, when is “ultimately?” When do we get out of this stuff? And do you think it's wise, operating the Desk, for us to end up in 2014 with 69 percent of our assets invested in mortgage-backed securities?

CHAIRMAN BERNANKE. President Fisher, let me interject, because that's something we discussed. Brian was talking just about redemption strategy. Now, at the last meeting, President Kocherlakota presented what he called a “reverse taper strategy,” which involved a program of sales, not a huge program in the short term, but over time, a gradual and pre-announced program. And I thought there was a good bit of comfort around the table with that general approach. The advantage of that approach is that it does bring us down, not immediately, but over a reasonable period of time, to an all-Treasury portfolio, and I think that's where we all want to be. But this is only about redemptions.

If I may say one more thing—I don't want to be using the clock as a defense, but I do think there's no hope that we're going to resolve these exit issues completely today, and I think that we ought to make sure at the two-day meeting in April that we completely review all of these issues. If there's not comfort with going ahead with RCAs, I think there's already some question about whether or not we want to make a decision today. It looks like we do not want to

make a decision today on the Treasury redemptions. That's fine. So we can put these things off. But I don't think we're going to come to a final conclusion. Regarding Brian's presentation, it was about looking strictly at a redemption strategy. I thought there was a lot of agreement around the table that we do want to have sales, but that the proposal was to do them in a gradual, pre-announced way.

MR. FISHER. And I don't want to take too much time because we do have to run against the clock, Mr. Chairman, but it seems to me that the tone at the table has been "hold back on sales of mortgage-backed securities until we raise rates," and I don't believe that has been agreed at the table. This is a derivative of the broader issue, which is the MBS, and I guess I should say I'm uncomfortable with question number four. I don't have a problem with the first three questions, but for number four, I'd say "Whoa, Nelly."

MR. SACK. I'm not sure what I'm supposed to answer. I mean, your observation is correct. Under a redemption-only strategy, it takes a very long time to shed the MBS.

MR. FISHER. So ultimately is 2025, 2050?

MR. SACK. Well, we'll have some MBS holdings on our books for 30 years essentially—not much, since the securities will be paid down under the redemption strategy. But, as that memo shows, at the end of 2011 we still have \$943 billion of MBS, and at the end of 2015, I think we still have \$715 billion of MBS on the books. It does take quite a long period of time under a redemption-only strategy.

MR. FISHER. Thank you, Brian.

CHAIRMAN BERNANKE. Governor Warsh.

MR. WARSH. Thank you. Two questions that I'll pose as questions. [Laughter] First, on the RCAs, Jamie, if the intent of the statute from the Congress is that you can't pay interest on

excess reserves to the GSEs and we design a product that effectively lets them get some piece of that, is that consistent in the eyes of the working group with what the legislative directive is?

MR. McANDREWS. I think that whether we use reverse RPs, term deposit facility, or RCAs, the GSEs will have to get paid a higher rate for the federal funds rate to rise. An element common to reverse RPs, RCAs, and term deposits is that GSEs would receive higher interest rates in the market by their counterparties—under RRP, it would be by the Federal Reserve—but the intent is to raise market rates in a way that they would earn higher rates in the market. Again, when the Congress gave the Fed the authority to pay interest on reserves, the idea was to avoid the reserve tax for banks, and essentially it was an oversight that many other entities—the Treasury, the GSEs, the World Bank, and so on—had balances at the Federal Reserve, but they were not reserve balances. The fact that the GSEs are heavy users of the federal funds market is essentially an unhappy coincidence. What we'd simply like to achieve is a very competitive environment when they're out selling their funds, and that competitive environment would be conveyed to all sellers of funds who are funding banks. It would be essentially a healthier market overall and not something that would benefit the GSEs necessarily. So we think it's perfectly consistent with the legislative mandate.

MR. WARSH. My second question is for Brian, and I should know the answer to it and don't. It's about the CDS on New York and California, as an example. If states can't go bankrupt, what triggers the CDS contract? Just nonpayment for a while?

MR. SACK. Yes. The possibilities outside of bankruptcy are a disruption to coupon payments or, maybe in extreme cases, debt restructuring. Either of those in some cases can be considered default events.

MR. WARSH. Thank you.

CHAIRMAN BERNANKE. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. I'll be brief. I guess some of my questions have been asked and answered, but I will say a couple of things. Your clarification helps me, because I also wasn't clear on what the purpose of the discussion around redemptions was, but you're telling me it is one part of a broader issue.

CHAIRMAN BERNANKE. That's correct.

MR. HOENIG. I think the discussion in April would be very good because the goal for me is to get the excess reserve levels down as quickly as possible. So I'm very much in favor of Treasury redemptions and also the systematic sale of the mortgage-backed securities to the extent the market can handle it without being disrupted. So that, I think, is the most important element that we can have as a discussion item.

On the RCAs, I do associate myself a little bit with President Lacker and President Evans. I see it as more of a transfer than really a competitive enhancer into the market. The enhancement is by giving the guarantee—you basically transfer earnings over to the GSEs. They've chosen to narrow their scope in terms of whom they'll have as a counterparty. That's their choice. I don't know that we need to get involved in that. I don't think we're going to gather that much more information, especially if we focus on getting the excess reserves down as quickly as possible. So I'll leave it at that.

CHAIRMAN BERNANKE. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I'm going to echo some of the things that have been said already. I, too, share President Fisher's concerns about the fraction of the MBS that's shown in the projections. I was glad to hear the Chairman's affirmation that we want to be moving into an all-Treasury portfolio ultimately, well before 2040. I recognize the

communications issue, and I'll offer some suggestions later today about how we might think about the communications challenges. But I think it would be useful for the staff to provide us with some alternative paths for the structure of the portfolio would look like under alternative sales patterns. So that's actually a comment, not a question.

And I'll offer yet another comment, on the RCAs. I would feel much more comfortable with this proposal if I had a really strong sense that it would fix the problem at hand, and I just don't have that. I do not have a sense that we know how the GSEs will change their behavior and how the depository institutions that will enter into the contract would change their behavior when this kind of contractual change appears. Until we have that, I'm not sure why we're going forward with all of this work. I felt the proposal is backwards. It seemed as if we're going to do all of the work first and then engage the GSEs and their possible counterparties as needed to determine an interest in entering RCA agreements. It seems wrong to me. It seems as if we want to figure out what's their interest level, and, given their interest level, what's going to happen as a result of that in the market before we do all of the work. So that was my concern about RCAs.

In terms of the redemptions, as President Hoenig said, I'm all in favor of reducing excess reserves. The staff seems to feel the passive redemptions have small price effects that happen once. I'm not sure I understand it fully, but that's great. So let's do it that way.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I'll be very brief because I'll echo some of the points that have already been made. In terms of redemptions, I'm all in favor of them. I think the important thing about where we're going is not just the size of the balance sheet, as President Kocherlakota just said, but also the composition. I'm uncomfortable with a

redemptions-only policy of either one because at the end of 2014, we've still got almost 70 percent of our SOMA portfolio in MBS, and that's not a satisfactory outcome. So we need to change the composition as well as the size.

On the RCAs, I'm very dubious about their benefits. I'm very worried that this will be read by the press and others as a way for the Fed to provide backdoor interest on reserves to the GSEs, and I think we will look bad in that process. I don't believe it's necessarily going to be effective. And I worry that if our long-term objectives are to return to, let's say, some kind of corridor system, the RCAs may put at risk the functioning of the fed funds market. Are we then shooting ourselves in the foot, making the return to a corridor system more difficult, or will we be forced into looking at other interest rates?

So I think all of this stuff kind of needs to be looked at collectively. As President Kocherlakota just said, we need to look at scenarios that meet all of our objectives, including: what is our long-term operating regime going to be, how are we going to get back to an all-Treasuries portfolio, and how are we going to reduce excess reserves. All of those things are intertwined with each other, and we need to look at them collectively and not as one-off decisions. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Okay. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. My answers to the four questions reflect my overriding conviction that there's no case at present to tighten monetary policy, and for this reason I don't favor redeeming Treasuries at this time. I could eventually see doing that. I see Treasury redemptions as a modest tightening of policy in two respects. First, an announcement of Treasury redemptions would likely be perceived by markets as an indication that we're close to raising the policy rate, and I think we saw just such a communication hazard with the

renormalization of the discount rate. Second, any direct effect from our asset purchases that lowered Treasury yields would presumably be reversed through redemptions. Indeed, I think a case could be made for maintaining the status quo, which would preserve the current duration of the SOMA portfolio and provide the maximum downward pull on longer-term yields and mortgage rates. But that said, I think there are benefits to reducing SOMA interest rate risk. So I could certainly support option 3 which would involve reinvestment into bills and two- or three-year notes. I also support the current approach of not reinvesting agency securities. Of course, that is also a marginal tightening of policy, but it is offset by the benefit of moving us more rapidly towards the Treasury-only portfolio.

On the reserve collateral accounts, I think the staff has done a lot of good work, but I have to say I share some of the concerns that have been expressed by others here. I am worried about introducing a facility that's geared solely to overcoming legislative restrictions on the GSEs' ability to earn interest, and I share the concern that, by expanding to such a great extent trading reserves outside the brokered fed funds market, we can end up undermining the functioning of the brokered fed funds market. I think that, especially when reserves are so large, the consequences for the behavior and volatility of the effective fed funds rate really concern me.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN: Are we going to have a go-around, Mr. Chairman?

CHAIRMAN BERNANKE. I'm trying to avoid it, but I'm not being successful.

[Laughter] Let me make a proposal, if I might, just to condition the rest of the comments that people might make. I haven't heard any objections to continuing our interim policy of redeeming MBS and agency securities. I'm seeing nodding around the table.

It's clear we need to have an overall discussion. Several people have made the point that we need to look at this in a general equilibrium way, that we need to put together all of the different components. I think that's right, and I was going to propose—I have proposed—that we revisit the entire strategy in April, including both the short-term reserve-draining issues and also the long-term strategy for returning to a Treasury-only portfolio. So let's do that. Given that, my proposal would be that we put off making any decision on Treasury redemptions until we have that full discussion and, for the time being, continue to roll over Treasuries.

On the RCAs, clearly, there is some reluctance there. Let me ask Jamie—I don't know the answer to this—is it possible to do some additional thinking about this tool, to be prepared to present to the Committee some further considerations both of the practicalities and of the economics, as well as of what goals we are trying to achieve, but not to make it public between now and April that we are looking at this. I guess the minutes will say we're looking at alternative tools, but in the next meeting this would be part of the overall discussion of how we were going to go back to achieve both our short-term and our long-term goals. Is that a satisfactory way forward? [Nodded assent.]

Okay. So given that, which means that everybody will indeed have an opportunity to express their full views on all of these issues, I'm happy still to entertain any additional questions that remain. Are there any other questions? President Bullard.

MR. BULLARD. Mr. Chairman, if we do it that way, then, sometimes press will come up and ask about this issue, and so we should just say we are not looking at it, or we should say that we are looking at some mechanisms to push the fed funds rate up?

CHAIRMAN BERNANKE. President Fisher raised implicitly a question about my testimony on exit strategy. I brought a copy just in case we wanted to talk about it. I did try to

make it a contingent discussion. My understanding—again, maybe I over-read the sense of the Committee—of the discussion following President Kocherlakota's proposal at the last meeting was, on the one hand, that the majority, though not unanimous, view was that we did not want to use MBS sales as a principal means of short-term reserve reduction, that we are going to look at RRP's and term deposits as the more immediate short-term method of reducing reserves, because of the concerns that even one MBS sale would trigger unknown revisions of expectations in the market, which could lead to very sharp changes in longer-term rates and in mortgage rates.

That was my sense on the one hand. On the other hand, I think there was also a very broad acceptance of the proposal that redemptions alone were not going to be sufficient to get us back to a Treasury-only portfolio. And I was very clear in my testimony that sales were going to be part of this process, but that they would be well-communicated and deliberate, etc.

Now, if I have overstepped the consensus, I apologize. I have to warn you that the testimony which was postponed because of snow has now been rescheduled for next week, and I don't see any alternative to just resubmitting the same testimony. I don't see any way to change that. I think there is some flexibility there. I think it's fine to hedge a bit and just say we're still discussing exactly how this will work.

MR. BULLARD. I actually just meant on this GSE issue, because we have some bright people in the markets, and so, if they're talking in markets then it might come up.

CHAIRMAN BERNANKE. Well, the thing which I think is already known in markets is that we're looking at reverse RPs for GSEs. So I think that's sufficient. Okay?

MR. BULLARD. Okay. So I'll just say that.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. I'm sorry, Mr. Chairman. I just want to make sure, because, again, we do get asked about GSEs. I don't think we're asked about the RCAs. I haven't gotten a question on that.

CHAIRMAN BERNANKE. No. RCAs are not going to be made public until the next meeting.

MR. FISHER. On GSEs, the question is—and it may have been misinterpreted, Brian, from something you may have said—whether we would contemplate selling GSEs before or after we raise the base rate. The timing is the question that we get now from the more sophisticated audiences. I would like some guidance, Mr. Chairman.

CHAIRMAN BERNANKE. Well, I will be quite frank. My own strong preference is that we do not sell MBS until we have a longer-term plan.

MR. FISHER. Right.

CHAIRMAN BERNANKE. We're going to have to withdraw hundreds of billions of dollars of reserves at the time we begin to raise the short-term rate. I don't see any way to sell hundreds of billions of dollars of MBS without having very sharp implications for longer-term rates and for mortgage rates. I think it is much safer to use the reserve-draining mechanism in the short run and to have a path, an announced path, for selling MBS over the medium term. That would be my personal preference, and I've stated it as my preference. If you disagree with that, of course, you are free to say so. Maybe the best thing is for all of us to make sure that we emphasize that there is still discussion going on in the Committee about the issue.

MR. FISHER. I think that's probably the sensible answer—we are still discussing the issue.

CHAIRMAN BERNANKE. We are discussing it, and we will discuss it further in April.

MR. FISHER. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Mr. Chairman, one possible source of confusion is that President Kocherlakota proposed that we begin midyear with this reverse taper. And in your summary at the end of our discussion—I have the transcript, I brought it—you don't comment on the timing. Presumably we didn't think we were going to raise rates before midyear. So I came away with a very different sense. I mean, your summary didn't give me the same sense that your testimony did.

CHAIRMAN BERNANKE. Again, part of this is my own view, obviously, but President Kocherlakota's proposal was to sell very, very small amounts in 2010, \$5 billion a month or something—very small amounts—so that the fundamental observation I took from that was that whenever this path of pre-announced gradual sales were to begin, clearly we would not be relying on it as a major tool for draining reserves. I think that was implicit in the discussion, because he was talking about relatively small amounts of sales. So we will just have to continue to discuss this and try to get further clarity. President Kocherlakota, do you want to defend your own—[laughter]

MR. KOCHERLAKOTA. Yes, thank you, Mr. Chairman. I think my own concern about the public discussion—your testimony, some of the statements that have been made by the other Presidents—is that a lot of this is about the short run, notwithstanding what I said in my memo. I think your testimony did summarize what I took away as the sense of the Committee, which was that people want to wait. Personally, I disagree with that, but it was my sense of what people on the Committee thought. Having said that, I think that there hasn't been quite enough emphasis in public about the longer run, that there's going to have to be a fair amount of active selling at

some point, if we want to be out of MBS by 2020. So that would be my concern about the public statements.

CHAIRMAN BERNANKE. I will read you the sentence, if you'd like, but there's a clear statement of that in my testimony. Anyone else? [No response.] Okay. Now that that's all clearly resolved, [laughter] we need a vote to ratify the Domestic Open Market operations.

MR. KOHN. So moved.

CHAIRMAN BERNANKE. Okay. Without objection. Let's turn now to Item 2, the economic situation, and Dave Stockton.

MR. STOCKTON.² Thank you, Mr. Chairman. Given the shortness of time we that have available this morning, I considered moving FOMC proceedings to a whole new level of efficiency by Twittering my briefing [laughter], with a Tweet something along the lines of "Recovery remains on track, though headwinds continue to be evident." But, proving that we are still in Washington, I was informed by the FOMC Secretariat that any proposals for improvements in efficiency require a detailed study, formal reports, and approval by a subcommittee of FOMC members, preferably chaired by Governor Kohn [laughter]. Appropriately chastened, I will try to remain brief within the confines of the traditional format.

The bottom line is that, although the incoming data have required some modest adjustments in our projection, they have generally been supportive of our view that the economy in the midst of a moderate recovery. Perhaps the most encouraging readings have been centered on private demands—both from consumers and businesses. It now appears that consumer spending has been on a solid uptrend since the summer. Indeed, last week's figures on nominal retail sales, which were released after the Greenbook was completed, showed an increase in spending on consumer goods other than motor vehicles of nearly 1 percent in February. That gain was considerably larger than we had expected, and has led us to revise up our projected growth in overall real PCE by a bit more than ½ percentage point to an annual rate of about 3 percent in the current quarter.

In the business sector, outlays for capital equipment have staged an appreciable turnaround in the last couple of quarters. Businesses have upped their purchases of motor vehicles, and there has been a noticeable quickening in the pace of spending on high-tech equipment. The recent improvement in tech spending has been reasonably congruent with widespread reports that many firms are increasing outlays on computers and communications equipment in order to replace aging equipment and upgrade networks. Even outside of transportation and high-tech investment, more

² The materials used by Mr. Stockton are appended to this transcript (appendix 2).

traditional capital spending appears to have flattened out late last year and to have posted a solid gain in the first quarter, after plunging in late 2008 and early 2009. And with new orders continuing to trend up in this area and survey data pointing to improved business confidence, the prospects for further gains look favorable, though I'd hasten to admit that given the volatility of these data, this outcome is far from assured.

The broad-based improvements in household and business spending over the past six months, in combination with the steep cuts in production that occurred during the recession, have gone a long way toward eliminating the inventory overhangs that were so prevalent in middle of last year. Indeed, we experienced the powerful upside of the inventory cycle in the fourth quarter, when firms boosted production substantially to limit further liquidation of their stocks. That process has not yet fully run its course, and we expect firms to boost production further in coming months as inventory liquidation gradually gives way to a modest pace of restocking later this year.

The efforts by firms to better align production and sales have been reflected in the rebound in manufacturing production that has been under way since last July. We reported yesterday that manufacturing output dropped 0.2 percent in February, but that figure was held down by the snowstorms and by the temporary suspension of some production lines by Toyota. It also comes on the heels of an increase of nearly 1 percent in January. Positive readings from the national and regional purchasing managers continue to point to moderate gains in factory output in coming months, and that is what we are projecting.

Even the labor market has been providing more favorable signals of late. The unemployment rate fell 0.3 percentage point to 9.7 percent in January and then held at that lower level in February. Although private payrolls contracted another 18,000 last month, our best guess is that, if not for the snowstorms, jobs would have increased by something in the vicinity of 75,000. There have been other encouraging indicators as well: Temporary help employment has increased in each of the last five months, help-wanted advertising is moving up, and the workweek looks to be firming.

But our projected upturn in employment still remains very much a forecast. Most troubling for our projection, initial claims for unemployment insurance have shown little further improvement since January and remain above levels that we would think consistent with any noticeable increase in employment. Likewise, most hiring indicators, such as the January reading from the JOLTS data, have shown little to no discernible improvement.

All told, we are reasonably confident that the economy has moved onto an expansion track. But we remain uncertain about whether the current expansion is in the process of transitioning into the above-trend growth in output and spending that we are forecasting. Still, we think that accommodative monetary policy, a diminishing drag on spending from the earlier declines in household wealth, and

further gradual improvements in overall financial conditions should provide sufficient impetus to aggregate demand to more than offset the waning fiscal stimulus. In our forecast, real GDP grows $3\frac{1}{4}$ percent this year and then steps up to a $4\frac{1}{2}$ percent pace in 2011, a pattern of growth that only trims the unemployment rate to $9\frac{1}{2}$ percent by the end of this year, but puts a more perceptible dent in unemployment next year when the rate falls to $8\frac{1}{4}$ percent.

Although the general contour of our forecast is the same as in January, we have marked down growth this year and next in response to some disappointments in the recent data that bring into sharper focus some of the headwinds that the economy still confronts.

Housing is at the top of that list. To be sure, the snowstorms, the effects of the homebuyer tax credits, and the usual difficulties in extracting a signal about sales and construction during the winter months make any assessment about underlying activity in this sector especially uncertain. But we've seen enough bad news across enough indicators to make us think our January forecast was too optimistic. This morning's data on housing starts support that view. Single-family starts remained at about 500,000 units last month, as did single-family permits—figures noticeably below our January forecast. Both series have been moving sideways for the past six months. In light of the steady stream of downbeat indicators, we are projecting a lower path for starts and sales and have accordingly marked down our projection of residential investment both this year and next.

The other prominent area where the incoming information has led us to rethink our forecast has been the state and local sector. Both the data on employment and on construction for this sector have surprised us to the downside in recent months. Although these governments are receiving considerable support from federal fiscal stimulus monies, the support has not prevented some significant retrenchment in their spending of late. In our current forecast, we are expecting state and local purchases to be flat this year at a lower level and then only edge up in 2011—a noticeably softer picture than was painted by our January projection.

The weaker outlook for activity in housing and in the state and local sectors, combined with downward revisions to the published data on labor income that were discussed in the Greenbook and a stronger dollar, led us to mark down projected growth of real GDP both this year and next by about $\frac{1}{4}$ percentage point.

For now, we view these revisions as modest adjustments to a forecast that remains one of gradually accelerating activity. But they highlight some of the obstacles the economy faces in returning to more robust growth.

Turning to inflation, we have also made only modest adjustments to our price projection. Core PCE prices came in lower in January than we had expected, leading us to mark down our projection by about $\frac{1}{2}$ percentage point to an increase of $\frac{3}{4}$ percent at an annual rate in the current quarter. That revision along with lower-

than-expected food prices also took about ½ percentage point off our forecast of total PCE prices, which was reduced to show an increase of 1½ percent at an annual rate in the first quarter.

Over the medium term, we marked down our forecast of core inflation by 0.2 percentage point in 2010 and a tenth in 2011 in response to the favorable incoming price data and sharp downward revisions in readings on labor compensation. But with inflation expectations holding steady, we didn't see a larger revision as being warranted at this time. All told, we expect total PCE prices to increase 1.3 percent this year and 1 percent in 2011, a bit lower than in our January forecast. Nathan will continue our presentation.

MR. SHEETS. Economic activity abroad has continued to gain steam, but the pace of recovery across regions remains uneven. Foreign GDP growth in the fourth quarter came in at 4¾ percent, nearly 2 percentage points stronger than we had expected. Notable upside surprises were recorded in Canada, Latin America, and through much of Asia. However, concerns about the ongoing stresses in Southern Europe, the slightly softer outlook for U.S. activity, and our judgment that the fourth-quarter rise reflected in part a temporary boost from inventories have all tempered any inclination to mark up our forecast. As such, we continue to expect foreign growth to average about 3¾ percent through the next two years, with a small upward revision in the first half of this year and a modest downward revision thereafter. We anticipate that private final demand will gradually firm, as financial headwinds continue to subside, labor market conditions improve, and monetary policy remains accommodative.

The global recovery continues to be led by the emerging market economies. Recent data suggest that China's economy is expanding at a near double-digit pace, driven by solid domestic demand and firming international trade. With inflation now moving up, the Chinese authorities will continue to tighten policy in the months ahead, with particular emphasis on keeping credit growth in check.

The recovery also appears to be strengthening in Latin America. The Brazilian economy has been buoyant, with some confidence indicators reaching all-time highs. And in Mexico, fourth-quarter activity surged at an energetic 8½ percent rate, reflecting strong manufacturing output and rising exports to the United States—in line with the continued recovery in automotive trade. Going forward, we expect Mexican growth to step down to a still solid 4 percent pace, broadly in line with the forecast for the United States.

In the advanced economies, growth prospects are more mixed. Canadian domestic demand remains strong, with GDP projected to rise 3½ percent on average over the next two years. Growth in Japan may finally be getting its footing. Supported by strong exports to Asia, Japanese GDP expanded solidly in the fourth quarter, and recent data have been encouraging. Nevertheless, with persistent

deflation, nominal GDP back to 1991 levels, and public debt approaching 200 percent of GDP, Japanese policymakers face some daunting challenges.

Ongoing stresses in Greece and other Southern European countries are weighing on the outlook for the euro area. Greek spreads over comparable German bunds remain elevated but retreated some following the Greek government's announcement of sizable fiscal cuts designed to narrow the budget deficit by 4 percent of GDP this year. The introduction of these measures also appears to have greatly improved the prospects for financial support from other EU countries. Given these developments, we are hopeful that the financial stresses in Greece will now gradually abate. However, this outcome is far from certain and, in any event, the planned path of fiscal retrenchment is likely to restrain Greek activity severely over the next several years.

Triggered by the ongoing stresses in Greece, financial markets have become increasingly attuned to sovereign risk. While to date these concerns have been principally focused on Southern Europe, there are other countries in the world that face a troubled fiscal outlook. If market pressures were to force a broader group of countries to consolidate their budget positions sharply, the negative impulse to global growth could be substantial. Increased anxieties regarding sovereign risk also could create stresses for the global banking system—both through banks' direct holdings of sovereign credit and through higher funding costs and increased macroeconomic uncertainties. Recent developments have also highlighted some key weaknesses in the institutional infrastructure of the euro area, including the limited capacity to provide conditional financial support to a stressed member and the lack of any sort of streamlined and transparent decisionmaking apparatus.

Recent data for the euro area have been generally downbeat, with GDP rising at a meager $\frac{1}{2}$ percent pace in the fourth quarter and more recent indicators also indicating little momentum. That said, the latest release of industrial production data, which came in after the Greenbook closed, was more encouraging. These data showed a record increase in January and pointed both to stronger first-quarter GDP growth than we had envisioned in the Greenbook and to an upward revision for the fourth quarter.

Activity in the United Kingdom expanded at a disappointing $1\frac{1}{4}$ percent pace in the fourth quarter. We expect that ongoing balance sheet pressures in the household and financial sectors and strains from prospective fiscal retrenchment will weigh heavily on U.K. activity through the forecast period.

Increased concerns about the outlook for Europe have led us—and the markets—to push back the timing of rate hikes by the Bank of England and the ECB. We now anticipate that the BOE will remain on hold until early next year and the ECB for a couple of quarters longer. In contrast, we continue to expect that the Bank of Canada will lift off in the second half of 2010. Other industrial country commodity producers—notably, Australia and Norway—have already started to hike rates. Likewise, several emerging market economies have also begun to tighten monetary policy, and others are expected to start soon.

The dollar has risen slightly on balance since the last Greenbook, gaining more than 4 percent against the euro and 8 percent against plummeting sterling. The decline in the U.K. currency reflects growing concerns over the country's fiscal outlook and a rise in political risk, as polls increasingly suggest a hung parliament following the May general election. But the dollar is down some against the Canadian dollar and several major EME currencies, in line with the strong recent data for these countries. Going forward, we continue to project that the broad real dollar will depreciate at roughly a 3 percent annual pace, similar to the January Greenbook. Our projected paths for oil and nonfuel commodity prices are also little changed from the last Greenbook.

The January trade data, which we received after our forecast went to bed, were well aligned with our expectation that net exports are poised to subtract only 0.1 percentage point from growth in the first quarter. Thereafter, exports are slated to rise at roughly a 9 percent pace, supported by stimulus from the dollar and the ongoing recovery abroad. Imports should increase at a slightly slower 8 percent rate, in line with strengthening U.S. activity, but from a higher level. Together, these paths imply a slightly negative contribution from net exports to U.S. GDP growth on average over the forecast period. This contribution is little changed from the previous Greenbook, as the negative impact of the higher dollar is balanced by the softer outlook for U.S. growth. That concludes our presentation. We're happy to take questions.

CHAIRMAN BERNANKE. Thank you. Are there questions for our colleagues? [No response.] A very thorough report. Thank you. Why don't we turn, then, to our go-round, and we'll begin with President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. At my directors' meeting last week, the most commonly used adjective to describe the economy was "flat." The Greenbook is estimating first-quarter final sales at 1.6 percent, which is roughly the same pace of final sales growth we experienced in the second half of 2009, and it certainly seems consistent with the qualitative assessment of a flat economy.

While the Greenbook and my own forecast assume a gradual increase in momentum, there is a high degree of uncertainty around the forecast. In particular, it is hard to be confident that private demand will offset the reduction in overall fiscal stimulus as well as the end of

targeted fiscal programs, such as the first-time homebuyers' program, and our own program of purchasing mortgage-backed securities. It is worrisome that housing seems to have stalled in the first quarter, even before the monetary and fiscal programs that were supporting the sector have ended. Coupled with continuing problems in commercial real estate, the outlook remains dim for those in construction trades who are hoping to be hired.

These problems are quite apparent in the employment statistics. Men in the age category of 20 to 24 years currently have an unemployment rate of 18.7 percent, 5 percentage points higher than women. Of course, transitory movements in and out of the labor force can add measurement error to the unemployment rate. To avoid these difficulties, one can examine the employment–population ratio. But the employment–population ratio for these prime-age males portrays the same qualitative picture as the unemployment rate. Its decline is striking—far larger than in the previous three recessions, even when one includes adjustments for the significant demographic shifts over the past decades. This group has been particularly hard hit by the dramatic decline in construction and manufacturing jobs, but is a group that would certainly be rehired if the economic recovery were more rapid. I would also note that the adjusted employment–population ratio has shown a fairly reliable link to inflation, and its implications for the inflation outlook are not reassuring. While layoffs have been subsiding, business confidence has not improved to where businesses are doing significant hiring. Anecdotal stories complement the employment report that indicates improvements in hiring of temporary workers, but continued hesitance in hiring permanent workers until the recovery is more firmly established.

As for inflation, the trend of lower core prices continues, and the Greenbook has lowered its forecast for core PCE inflation to only 1 percent at the end of 2011. The recent behavior of

compensation suggests that this trend is not yet at an end. The Boston staff model finds that the recent wage deceleration is well explained by low inflation expectations and significant labor market slack, partly offset by rapid productivity growth. Interestingly, the one-year inflation expectations implied by the model are currently below 1 percent. That model suggests subdued wage growth throughout the forecast horizon and a continued decline in core inflation, even as short-run inflation expectations return toward their 2 percent anchor over several years. I would also note that deflation rather than inflation has become a problem in Japan, and many European countries are reporting very subdued core prices, particularly countries such as Spain and Ireland, which have been severely impacted by the financial crisis.

The problems in Europe highlight a continued downside risk. Problems with sovereign risks have the potential to be amplified through the banking system. According to data from DTC, the three largest net sellers of credit default swaps to Greece are financial institutions that have exposures ranging from \$690 million to \$990 million, and one of the three is a large U.S. financial institution. Greece is a relatively small country, but a crisis of confidence in firms and governments and peripheral countries in Europe could raise the possibility of once again creating problems at highly leveraged institutions. We should be particularly alert to problems in countries such as Spain, with its high unemployment rate, falling housing prices, and banks reliant on wholesale financing.

While the brunt of the problems would be centered in Europe, we would certainly not be immune. While I expect that Europe will be able to resolve these problems without a large negative shock, the risk of such shocks at a time when our recovery is still anemic and our policy tools limited bears careful monitoring. While the economy is recovering, it is both a slow and

fragile recovery. I expect that it will be some time before we can have much confidence that the recovery has firmly taken hold. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. The level of economic activity in the Eighth District is slowly improving, although reports remain mixed as manufacturing activity has increased in these months and firms continue to report that they are reluctant to hire. Contacts indicated that the level of retail sales in the District was lower in January and early February when compared with one year ago. However, most retailers were optimistic for March and April. Residential real estate markets in the District continue to be weak, but appear to have stabilized. The pace of home sales, for instance, remains about the same as it was one year ago. Commercial and industrial real estate markets continue to struggle. Contacts in the District's transportation industry were generally positive, reporting volume increases that suggest a sustained recovery and strengthening across categories, regions, and internationally.

My sense is that the economic recovery remains on track. Nationally, business capital spending continues to trend upward, as discussed earlier, which I find encouraging. Households seem to be returning slowly to more normal consumption patterns. I expect the U.S. labor markets to show improvement soon, very soon, I hope. Failure to see job creation in the next few months would be a significant worry. We've waited a long time and had a long stretch of negative numbers; I would expect that to turn around this spring. Continuing expansion in Asia seems to be helping U.S. firms, including many in the Eighth District. One risk to the forecast is possible derailment of that expansion. China, in particular, may be susceptible to a crisis event. It's a concern to me, and I think we should be prepared to adjust policy should that scenario unfold in the next year or so. The pace of projected growth in Europe seems very slow to me

relative to the U.S., and, certainly compared with Asia, momentum seems very weak. A stagnant Europe also seems like a risk to the broader recovery in my view.

U.S. inflation trends are subdued. Risks to inflation in the U.S. in the medium term rest on how finely calibrated our ultra-easy monetary policy is in reaction to a very severe recession, and I'm not sure how good our calibration really is. TIPS-based expected inflation measures fell modestly during the past week. I interpret this as markets pricing in some probability of a return to more volatile financial markets in response to sovereign debt issues around the globe.

I put a low probability on the scenario that renewed financial market turmoil will materialize near the levels of the last 18 months. As I see it, for better or worse, governments have shown that they're willing to back the largest financial institutions internationally and, therefore, I think we're not susceptible to the same type of turmoil that we saw a little more than a year ago. Those government guarantees remain in place.

I'm concerned about the influence of the shelter component in measures of inflation. Prices in this area are more reflective of excess supply conditions in housing markets than they are of underlying inflation trends. They are likely to remain so for the foreseeable future. The core CPI inflation rate without shelter is running at about 3 percent, measuring from one year ago. Of course, it's completely arbitrary to throw out components of the price index, but, unfortunately, we do it all the time. Our core measures of inflation exclude food and energy, which gives shelter a large role in the story on inflation at this time. A better approach, in my view, is simply to use the headline price index, which, I admit, can be volatile. These are the prices that people actually have to pay. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. In general, the business conditions in the Third District continue to show signs of improvement since our last meeting, and the tone of our business contacts has become somewhat more positive. The manufacturing sector shows the clearest signs of increased activity. Our Business Outlook Survey's general activity index has been in positive territory now for six months. The index rose slightly in February to 17.6, and the preliminary results, which will be released on Thursday, will show another slight increase for March. Also, the new orders and shipment indexes rose significantly in February, and even the employment index is now in positive digits. These measures are all consistent with typical recovery patterns.

Retail sales in the District have been growing slowly, with most of our contacts reporting soft sales as having been tempered somewhat by the snowstorms in February. Firm contacts tell us they see this positive trend for retail sales on somewhat firmer footing than they did a few months ago.

One of my contacts is the CFO of a very large national cable company headquartered in Philadelphia. He reports there has been a significant pickup in their businesses in the last several months. Last year advertising revenues were down between 25 and 30 percent. In the last few months, local advertising, which they view as more indicative of economic conditions than the national bulk advertisers, has surged, suggesting that businesses have become more confident and that the recovery is sustainable. Conditions improved on the consumer side as well. Delinquencies, which rose significantly last year, are falling and now are at or near what he described as close to normal levels. What they call "churn"—that is, the number of people dropping their cable accounts relative to those signing up for cable—has also returned to more normal levels after deteriorating dramatically last year. These are both very positive signs. Of

course, all of the news isn't good. This company usually spends \$200 to \$300 million a year building out cable services, mainly laying cable for new home construction. As you might expect, those capital expenditures are way down, and they don't anticipate those coming back until housing construction returns.

The weakest signals in our District come from the labor markets. Unemployment rates in our three states are at or near recession highs, and payroll employment has continued to decline over the last three months. State and local budget situations are not rosy, and that, of course, is tied closely to employment, and that also remains a concern.

On balance, the outlook for the region is for continued modest improvement. The Philadelphia Fed's leading economic indexes are projecting economic growth of around 2½ percent in our District for the next nine months or so. The outlook among our business contacts has improved, but most are still expecting economic growth to be modest.

At the national level, my outlook for the economy has changed very little since January. I see a modest, but steady, recovery in economic activity that I believe will be sustainable even after the effects of monetary and fiscal policy wane.

On the negative side, housing markets continue to be stressed, and the improvement in sales and starts seen earlier appears to have been driven by the tax credits. It's difficult to read precisely, because of bad weather, which also affects the numbers. More broadly, I think that, given the distortions in the marketplace with programs like "cash-for-clunkers" or first-time homebuyers' credits, it remains unclear how much of that spending that was taken out of the market and directed to those specific products will begin showing up in demand for other goods and services if consumers feel like spending. So, although we may see a weakening in housing when the tax credit ends, we also may see a pickup in spending on automobiles and other things.

Labor markets continue to be weak, but job losses appear to be bottoming out. Businesses' future hiring plans seem to be firming, and that's indicated on our outlook surveys. And I continue to expect a resumption in payroll growth in the second quarter. This will be key to a continued improvement in household balance sheets and consumer spending. The pickup in business investment and equipment that has been referred to is consistent with stronger business confidence.

The risk I see around my forecast for this year of around 3¼ to 3½ percent is roughly balanced. My inflation forecast continues to differ from the Greenbook. In the near term, I expect underlying inflation to remain very modest, but I do expect it to drift upward over the next several years, and I see upside risk to inflation in the medium to longer term.

I continue to believe that we will need to begin tightening policy this year, certainly well before what is anticipated in the Greenbook, where there is no increase in the fed funds rate until 2012. Sustained economic growth in the next coming quarter or two will be, to me, an important signal that we should begin normalizing policy. So I would hope that in our April meeting we'll be able to work towards a consensus on our longer-term operating framework, including our operating target. Knowing, for example, that we will want to converge towards a corridor system will help us in our deliberations on the exit strategy to achieve our goal of dramatically reduced reserves and a portfolio that consists only of Treasuries. With that, we will know better how to communicate those messages to the public. Thus, I hope we can reach a decision on that goal soon. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. This is, of course, our first one-day meeting in a long time, and the premium is on brevity. I was reminded of this on Sunday when I

was driving to the bank to do my final preparations, listening to Garrison Keillor's "Prairie Home Companion." He was reciting pearls of cowboy wisdom—I would think my western colleagues would know this—including "Never pass up an opportunity to remain silent."

[Laughter]

MR. LACKER. Is that your only point?

MR. LOCKHART. Actually, I do have something to say. In our conversations with directors over the past two weeks, the most common characterization of the economy in the Sixth District was fragile. We detected some improving optimism, but this optimism is tempered by concern and uncertainty about top-line prospects, policy coming out of the Congress, worsening problems of state and local government, and the commercial real estate exposure to the banking sector.

The Sixth District's outlook narrative is broadly consistent with the Greenbook, but Atlanta's forecast remains weaker than the Greenbook, stemming in large part from our assumption of a slower pace of business investment. Over the last two weeks, we focused our inquiries to directors and their contacts on this assumption. We heard that inventories are being managed to unusually lean levels, and businesses seem committed to tighter inventory ratios on an indefinite basis, in some cases even at the expense of sales. We also heard a good deal about advancements in just-in-time supply capability on the part of most domestic and foreign suppliers. This feedback casts some doubt on the prospects for much near-term GDP contribution from inventory replenishment. We also detected from our Sixth District contacts very restrained intention to invest in equipment and software or nonresidential structures beyond maintenance levels. This anecdotal feedback produces some cautious skepticism regarding the Greenbook forecast of strong economic growth and expenditure on equipment and software. Our

contacts also conveyed a strong hesitance to hire, and their opinion was that, where investment is occurring, it is labor-replacing. One contact also noted the renewal of offshoring activity. We heard through directors that many business people seem to be talking about potential inflation, but few appear to be acting on this concern. There is a widespread assessment that pricing power remains very weak.

Regarding inflation, it's hard for me to summon much concern about inflation in the immediate future. Almost all measures of core inflation show indications of disinflation, and inflation expectations continue to strike me as stable.

Finally, I see the growth risks as pretty balanced. Not one Atlanta or Branch director expressed the opinion that growth in their businesses would be slower in the next six months versus the past six months. At the same time, as I noted, they characterize the economy as extremely fragile and the recovery as tentative and held back by uncertainties. These reports capture what I perceive to be an encouraging but inconclusive real economy picture at this juncture. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. There's a South Carolina version of your aphorism, which is, "If you should ever have an opportunity to keep your mouth shut, be sure to take advantage of it." [Laughter] President Fisher.

MR. FISHER. Well, I was going to say that the Texas version of the aphorism is, "Never be silent." [Laughter] But I will try to be brief.

Very quickly, in terms of our District, we are seeing a pickup in economic activity. Exports are up 31.6 percent year over year through the end of January, not unimportant for us as an exporting state. Retail sales grew at an annual pace of 0.8 percent in December. They have now increased for four consecutive months. Single-family housing permits increased strongly in

January. Our leading index increased in December and January and has now risen for nine of the past ten months. And our job forecasts by our staff indicate that we our employment will probably increase by 2.1 percent this year. By the way, 2.8 percent is the average for Texas over the last 30 years. We see a pickup in economic activity. Having been one of the last to go into recession, we're coming out, not robustly, but we are coming out. With regard to the comment on snowstorms, the snowstorms held things down. There may well have been a slightly more robust expansion on our hands than we had thought. So enough of the District.

I want to share with you quickly what I am hearing from my CEO contacts. Most of this information is through last week in terms of their own activity, and I'll just walk you through some key indicators that I think may add to the information that you imparted so well in your briefing.

Through the end of January year over year, air freight activity has taken a big pop upwards of 28.3 percent, building on what is continuous sequential improvement since October of '09. As you know, Herb Kelleher—I'll drop one name—is on our Board. He has a sense of humor. He said, "Things are not coming up roses, but they're coming up periwinkles." So we're beginning to see some improvement, including in premium traffic in terms of airlines. For the first time since May of '08 premium traffic has picked up by 1 percent.

With regard to the shippers, they're reporting a slight improvement in demand-supply balance, and a slight strengthening of container market and day charter sales. And with regard to the rails, which I like to look at, volume shipped through last week year over year is up 3½ percent year to date. Just to put that in context, their loading last week for the industry entirely was 633,000 cars. The peak was 771,000. So it's coming off a low of 525,000, and it's a sequential pickup. There still is excess capacity in ships and in rails. About 25 percent more

volume could be handled under the current availability of capacity, but the point is capacity is picking up, and shipments are improving.

With regard to petrochemicals, there has been a “remarkably strong beginning in January and February,” according to one of the largest petrochemical producers. Most of that is going to manufacturers and replacing very lean inventories, but autos seem to have led the way.

With regard to semiconductors, the producers that I talked to are reporting underlying demand increasing significantly across all business lines, “beyond normal seasonal demands.” This started escalating about 60 days ago in auto production, 30 days ago in communication, most recently in PCs. The result is that some of them are adding capacity “aggressively,” and this is confirmed by some of the computer and PC manufacturers that we talked to. The CEO of Dell reports—and I believe this is not yet reported publicly—20 percent revenue growth year over year through last week, the return of large business orders, but building what they call “spend to save”—that is, continuing to drive efficiency so they don’t have to rehire labor.

AT&T reports that long distance minutes are tracking upward, roaming has stabilized—those are two key indicators for them. Very interestingly, only 3 percent of the people use 40 percent of the available bandwidth in this country. They charge them \$30 a month. Needless to say, to get that reshaped they are going to start pushing prices up on the order of 15 to 20 percent beginning in May—at least they will attempt to do so.

And with regard to final consumption, it is interesting. President Plosser made a point about advertising. The large national advertisers and the local advertisers are reporting they’re seeing a trending upward, but the buys are coming late and there is very little visibility going forward. There still is that uncertainty of how much buying you have three months in anticipation.

With regard to retailers, the lowest quartile still is in the foxhole. The second and third quartiles are coming out of the bunker—that is, those in the middle-income groups. And then, the balance sheet buyers that shop at Neiman Marcus and the higher-end stores are seeming to party once again. And this is confirmed by MasterCard data, which show that luxury goods sales year over year through the end of February are up 15 percent. And mall traffic is slightly picking up. Malls, again, are places where people don't need to go. They go because they wish to go, and you're seeing, despite gas prices, an increase. According to those that report to us, sales this year are up in the 2 to 3 percent range, even in California, by the way. And Michaels, which is an interesting store, has 1,000 units, 250 of them in California—they had the best month they have had in the last four years in California this month. So, as their CEO said, there's even a sign of a heartbeat in California.

Turning to inflation very quickly, every so often you get a PCE release which indicates the outsized impact of one fluky item, and the misinformation being imparted by one month's numbers. The last PCE for January is a good case in point. Of all things, luggage and similar personal items, which has a weight of 0.2 percent in the total PCE, had a one-month, annualized, rate of decline of 94 percent. This was before it was announced that Janet might be the next Vice Chairman and might have to move from San Francisco. [Laughter]. But it's interesting that, absent this little event, headline PCE would have grown at an annualized rate of 2.7 percent rather than the 2.1 percent annualized rate that was reported. I mention this as a little advertisement for the trimmed mean. Our Dallas trimmed mean came in at an annualized 0.8 percent in January. That is the third consecutive number below 1 percent. And the twelve-month trimmed mean has trimmed down to 1.2 percent from 1.3 percent.

So this and continued weakness in labor costs and wages indicates to me there's very little upward pressure, as President Lockhart indicated, to overall foreseeable inflation, though I am watching carefully the turnaround in OER, which we saw a glimpse of in January. And then, for the internationalists in the room, there are widespread reports that the Chinese are already beginning the pricing for the next spring season, including significant increases—on the order of 10 to 15 percent—to cover their costs of labor, which they are trying to draw back from the provinces to the coastlines and their manufacturing centers.

So, in summary, Mr. Chairman, on the economic front, I believe that we do have a recovery under way. The issue really still has to do with employment. There does not seem to be a great amount of interest—whether it's small business or Fortune 500 companies—to rehire. And one still has to ask the question: Even if we had increasing prices coming through the front door, is there consumer demand that will sustain it going out the back door in goods and services? I don't see that in the immediate future.

I want to conclude with a quick comment. In surveying small companies and large companies, the issue is not the price of capital. Liquidity is ample, and money is cheap. The constant refrain of complaint is what one small businessman calls regulatory roulette: Those small companies that are creditworthy are seeking loans, and they feel that they have access to capital. If you look at the NFIB surveys, they'll tell you that only 3 percent of business owners report finance as their number one problem. For most, their number one problem is uncertainty. A very disheartening point when talking to CEOs today is that small businesses are reluctant to hire because of uncertainty in terms of what social overhead costs are going to be, taxation, and all of these other things that we have heard about before. But most disheartening of all is that large businesses are loath to grow their payrolls and spend beyond maintenance cap ex in this

country. And CEO after CEO after CEO, and business group after business group after business group, at least claims that they will be expanding their cap ex. If it's beyond maintenance, say like AT&T or Exxon, or those kinds of people, it's all going abroad. To have a CEO of an iconic U.S. company tell me, "It's time to get the hell out of Dodge," meaning to invest elsewhere, because they don't believe that ROI is comparable in this country, has nothing to do with monetary policy or central bank policy. It has to do with uncertainty. And I hope, even though it's not our policy and has nothing to do with what we do for a living, that eventually those uncertainties will be removed. If they're removed, I believe that American businesses are running very tight, they're extremely muscular, they will have to add to their labor force, and they will have to invest more. But currently they're totally reluctant to do so. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The most recent published data for the Fifth Federal Reserve District continue to show a lethargic recovery. For example, our surveys of manufacturing and service sector activity were tepid in February. Within the last few weeks, however, the tone of the information flow has begun to improve noticeably. Several of my directors have reported positive unexpected developments that occurred in recent weeks, such as IT suppliers beginning to hire temporary workers to fulfill rising demand. In addition, a preliminary tally of responses for our March survey has found improvements in a number of categories. For example, our manufacturing shipments index was zero last month, but the preliminary March reading is 8, and the retail sales index was a minus 15 last month, while the preliminary March reading is 5. These indexes are often choppy, of course, and the February

readings were likely held down by the snow. Still the improvements are striking, especially in conjunction with the better anecdotes we're hearing.

Turning to the national outlook, the Greenbook responded appropriately to the soggy information flow by marking down the current quarter GDP growth forecast by 0.6 percentage point. In addition, the staff lowered the projected growth rate of real GDP through the end of next year. I do agree with the staff that it makes sense to mark down the near-term outlook. The downward revisions to previously published employment and income levels were striking, and the housing market appears to have stalled out.

That said, I'm not so sure that the latest data warrant pulling down the forecast of growth a year or more ahead. Consumer spending still appears to be expanding at a reasonable pace despite the substantial strains many households must be experiencing, and housing is such a small part of the economy now that flat residential investment isn't much of a drag on economic growth. Besides, this is likely to continue to be a somewhat choppy recovery for some time, and I think we should be careful not to over-interpret or perhaps over-extrapolate month-to-month forecast misses. I haven't pulled down my longer-term forecast just yet, and I still think that there's a reasonable chance that growth will come in above our baseline projection. If growth does surprise on the upside, we'll probably want to begin to normalize policy sooner, perhaps a lot sooner than the Greenbook assumes. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. The economic recovery continues to progress modestly. Our contacts indicate that business conditions are improving gradually. Most manufacturers report increases in orders. The inventory cycle accounts for much of this, and businesses expect this rebuilding will largely be completed during the first half of the year. The

usual post-recession surge in sales associated with pent-up demand for consumer durables and capital goods has not materialized to date. A lack of confidence and restrictive credit appears to be trumping the desire to make up for spending bloodied by the downturn. Accordingly, all of the businesses I spoke with remain conservative in their medium-term outlooks for growth. By sector, commodity-related industries are doing somewhat better, but construction-related businesses are still scraping along the bottom.

With restrained expectations, very few firms are planning robust increases in workforces or capacity. For example, Caterpillar laid off 37,000 workers during the recession. Now it is bringing back 7,000 of them, and it does not expect to return to the previous workforce levels within the foreseeable future. In a similar vein, United Airlines has seen a pickup in business travel because companies are sending their sales people back on the road again, but United has reduced its overall capacity.

In terms of the forecast, we agree with the Greenbook's assessment that the balance of the incoming data has been a touch weaker than anticipated, but only by enough to shave a couple of tenths off of the outlook for economic growth in 2010. We see GDP increasing in the range of 3 to 3½ percent this year and 4 to 4½ percent for the next two years. The decline in the unemployment rate was a bit of unanticipated good news, and we carried a lower rate forward in our projection.

There's not much new to say with regard to the inflation outlook either. The significant resource slack in the economy is exerting downward pressure on pricing. My contacts said that planned wage increases are still small or nonexistent, and scattered reports of higher materials costs do not appear to have had much effect on end-user prices. But the TIPS and survey data still indicate that inflation expectations are pretty well anchored. Accordingly, we're continuing

to expect only a slight further drop in core inflation this year and then some gradual pickup to about 1¾ percent by 2012. So the implication seems to be that strong accommodation remains an important element of this outlook. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I'll organize my remarks on the current economic situation around the three explicit qualifiers we've used to condition the "extended period" language for our policy statement, namely, low rates of resource utilization, subdued inflation trends, and stable inflation expectations.

Beginning with resource utilization, my assessment of both the current situation and the likely future path has changed very little during the intermeeting period. I continue to anticipate only moderate economic growth and an extended period of substantial underutilization of resources. The boost from the inventory cycle appears largely over, and the growth contribution from fiscal stimulus is waning, but improvements in exports, consumer spending, and business investment should support moderate real GDP growth this year. Given the extraordinary depth of the recession, I expect it will be a very long time before the economy returns to its potential, and my own economic growth forecast exceeds the pace my business contacts consider plausible in light of the pervasive caution about spending that they see among their customers and business associates. The latest labor market reports have been a bit more favorable than expected, especially given the unseasonably bad weather; but even so, as I stressed at the January meeting, labor market readings paint an even bleaker picture of underutilization than product-side measures.

During the intermeeting period, the housing sector has emerged anew as an area of concern. It now appears to be bumping along the bottom, which is consistent with our

expectation that residential investment will not play its traditional key role in moving the economy during the early stages of recovery. This stalling out of the hoped-for recovery in residential real estate is disappointing, and my concern is compounded by the continued deterioration we're seeing in the performance of residential mortgages, suggesting that foreclosures will weigh on prices going forward. The good news is that mortgages issued in 2009 are now performing relatively well as they age in comparison with previous vintages. But older vintages continue to perform very poorly due to past declines in house prices and high levels of unemployment.

Some observers have been heartened by the fact that the share of mortgages 30 to 89 days past due has declined recently. Unfortunately, analysis by my staff of loan-level data reveals this decline actually represents a worsening of mortgage market conditions. The decline in 30- to 89-day delinquencies does not reflect an increase in the "cure rate," which is the fraction of delinquent borrowers becoming current. Instead, it reflects a faster transition of delinquent mortgages to even poorer performance status. The data for January of this year appear to confirm that conditions are continuing to worsen. I, therefore, anticipate that the share of loans that is seriously delinquent will keep moving higher, generating further increases in the pace of foreclosures. I fear, too, that we have had a temporary reprieve in new foreclosures due to the ramping up of the government's trial modifications, but only a small share of these modifications will stick. All in all, the prospects of further additions to the already very large inventory of vacant homes represents downside risk to home prices and new home construction.

Let me now turn to the second economic condition underlying the policy guidance, a subdued inflation trend. Since the start of the recession, core PCE price inflation has fallen 1.2 percentage points. In joint work with staff at the New York Fed—and I see that Bill has

distributed a picture that my staff has also been working on—they find that this decline reflects diffusion across many categories of spending. I won't go into too much detail, because I think Bill is going to talk about this. But one point I wanted to make is that, while the deceleration in shelter costs certainly has contributed to the disinflation, that deceleration is not entirely due to rents and the imputed costs of owner-occupied housing. An important reason for it is that there has been a sharp decline in lodging away from home, and that reflects something quite different, which is a real contraction of tourism and travel. I think, as Bill is going to discuss, what we see here is broad disinflation across many categories of spending. Furthermore, with various measures of utilization still showing significant margins of slack, I expect the downward trend in inflation to continue.

The third economic condition in our “extended period” statement—namely, that of stable expectations—is probably the most challenging to assess, and many measures of inflation provide somewhat mixed signals. I think if we look at measures over the next five years, almost all measures have fallen on balance since the start of the recession. However, for the five-year forecast horizon five years ahead, I think survey measures have edged up a bit. Break-even inflation rates, in contrast, are about where they were two years ago, and my staff's finance model, which accounts for shifts in inflation risk premiums, puts inflation expectations well below their pre-recession levels. So when I take everything together, I would judge that inflation expectations remain reasonably well anchored, despite considerable turmoil and uncertainty that has afflicted our economy over the recent past.

All in all, my bottom line is that the three economic conditions we have explicitly attached to our “extended period” statement are still satisfied, and when we get to the policy go-

around, naturally I'm going to conclude that the economic outlook continues to support the use of that language for a forward-looking policy guide.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. I'll focus mostly on the region and let that carry into the national outlook. If you talk to people in our region, as our economy continues to show modest, systematic improvement in the manufacturing and especially in our energy and agricultural sectors right now, there is an attitude that we are basically grinding our way through to a sustained modest recovery, barring shocks from congressional action, fiscal policy, international events, and all those caveats. So there is a certain confidence building of a modest recovery going forward.

Turning to the sources of some strength, manufacturing activity is increasing steadily and has been so since September. Production has nearly returned to year-ago levels. Even some in manufacturing are becoming more optimistic in terms of their production outlook. In the energy sector, capital spending is now expanding even though natural gas prices have been relatively low. The technology and the opportunities are there, and they are investing pretty significantly right now. I would point out that our agricultural sector has improved, and there are stronger income levels that have led to a rise in loan repayments and fewer reports of loan renewals and extensions. Crop land values have strengthened pretty noticeably—we have a director in our Omaha area, and he is in the land auction and brokering business and management business across the country, and some of the increases in the last couple of months have been quite striking. Sales of land that was once \$3,000 an acre is now \$8,000, and when asked why people are leveraging off adjacent property, the answer is, "I can't put it anywhere else and get any money, so I might as well put it in that." We're seeing some pickup in mergers and acquisitions

as well. Retailers report January and February were weaker than they expected and flat relative to a year ago, as others might have said. But they are optimistic as we look ahead.

Commercial real estate, as others have said, remains very weak, but I would note the following. We have worked with some of the real estate companies and some of the appraisal companies in our part of the country; now, for Class A space, the cap rates are actually coming down again. So we are seeing some improvement in that top layer in terms of the willingness to finance and the willingness to lower the cap rates, and I think that is of some importance.

There's little evidence of wage and price pressures in the District. One thing I would report: A former director of ours who has a temp employment company said that, since last spring to the middle or maybe the first week in February, the firm has seen a 50 percent increase in activity. Part of that is market share, but part of that is the level they're starting from, and it's also kind of the company's trial balloons, and this sort of thing, but it has picked up noticeably.

On the national outlook, I continue to hold the view that we are in a state of recovery—I think we're probably looking at 3 percent economic growth, not unlike the Greenbook. So there are differences here and there, but I suspect we'll have a sustained recovery going forward.

On the inflation front, I agree that if you look at the trimmed numbers or you look at the core, a 1 percent outlook for near-term inflation is a reasonable estimate in my mind. Over the longer term, of course, those projections change. I would also mention here, and I will perhaps mention it later, as well, that an issue that keeps coming up in terms of the guarantees on the low rates is that—and we learned this a little bit and this why we're suffering some of our unemployment—those very guarantees encourage the leverage that we are concerned about and encourage some of the distortions that we'll have to deal with later. So it's not just the inflation

outlook, but how we're encouraging leverage going forward that I think we have to be mindful of. I will stop with that, Mr. Chairman. Thank you.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. My outlook for GDP growth remains somewhat below the Greenbook baseline forecast for both this year and next, and I don't expect the unemployment rate to fall below 9 percent until mid-2011. My weaker output growth and higher unemployment profile resembles a combination of the Greenbook's lower-potential-output and persistent-caution scenarios. In my outlook, unprecedented levels of long-term unemployment lead to a weaker recovery in output growth along the lines of the Greenbook's lower-potential-output scenario.

Past experiences with very long-lived unemployment spells indicate that workers lose valuable human capital during their unemployment that is not recovered for years after the unemployment spell ends. The clearest evidence for these losses is research that examined the consequences of permanent job losses in Pennsylvania in the wake of the severe shake-out in the steel industry during the 1980s. Unfortunately, many of today's long-term unemployed could suffer a similar fate, which, when added up over millions of people, accumulates to a lower level of potential output. The loss of human capital is likely to be extended for some time, as I'm also seeing early evidence of a jobless recovery. The past two recoveries were characterized by low job-finding rates, and that pattern seems to be repeating itself in the current recovery. The comments that I've been hearing from a range of business people have indicated few plans for hiring in the coming year, as many have already mentioned. This has been particularly the case for large groups of small businesses that we've been meeting with throughout the District during

the past couple of months. Overall, what I'm hearing is that it's likely that the unemployment duration is set to grow even longer.

I also find the Greenbook's persistent-caution scenario consistent with widespread reports that I'm hearing from both households and businesses in my District. The sheer magnitude of the recession caught many by surprise and has instilled a heightened sense of caution in both households and businesses. This is evident in a range of sentiment indicators, but perhaps most telling in households' expectations for their own income growth. The Michigan survey has included that question for years, and households reliably answered that they expected their incomes to grow about 3 percent or more, even in recession years. Since March of 2009, respondents are now anticipating near zero growth in their income. With these types of expectations for no income growth, it's likely that we're going to see the elevated saving rate continue beyond the current year.

Businesses that have made it through this recession, with a few exceptions, are just as cautious in their investment and hiring plans. Most of the CEOs that I talk to from large and small companies say that there's just way too much uncertainty out there, uncertainty over health care reform, energy, environmental, and tax policies. As President Fisher commented, the CEOs claim that uncertainty is so great that it's causing them either to delay investments or to divert them to countries where uncertainty is much lower. It's not a ringing endorsement of our country when I hear these executives say that they see China and India as a lower-risk investment climate.

Shifting to the inflation outlook, the incoming data on consumer prices highlight significant downward pressure on pricing, as many have already commented. I'll add one more data point. The Cleveland trimmed mean and median CPI series have both been on a

disinflationary path since mid-2008. Looking at the distribution of price changes, more than 40 percent of the consumer's market basket has been exhibiting outright price decreases over the last six months. This is somewhat striking considering that during the 2003 period, in which we were worried about falling prices, that phenomenon occurred only once. This tendency for core inflation to head lower is gradually offset in my projection by the effects of lower potential output and anchored inflation expectations, which, in my forecast begin to push inflation higher in 2011.

Overall the risks around my outlook for output growth remain balanced, with my business contacts citing a range of potential downside risks that are offset by the fact that pessimism does tend to dominate at similar points in recoveries, and then we've been surprised with growth to the upside. In terms of inflation, with core inflation rates edging lower and our limited options for further policy responses, I'm now leaning towards the inflation risks in my forecast being slightly to the downside. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I'll focus my remarks on four elements of the current economic situation: conditions in the Ninth District, national labor market conditions, the inflation outlook, and conditions in financial markets. The first two feed into my current thinking about our policy on interest rates, and the last two feed into my current thinking about the balance sheet.

Throughout the Ninth District, businesses generally report that they do not anticipate making further cuts in production and employment. However, they generally do not see a need to expand either in terms of capital or labor. The possible exception may be Minnesota. Businesses in Minnesota, especially those with foreign markets, report seeing increases in

demand in the latter part of 2009 and anticipate more increases in the first half of 2010. Some of the Minnesota contacts report that temporary hiring in the manufacturing sector has increased, although there are few, if any, plans to undertake permanent hires.

Let me turn to the national labor market. Nationally the unemployment rate in February, as we all know, remained elevated at 9.7 percent. I think the data on labor turnover from the JOLTS survey continue to be troubling. The hiring rate began to fall in early 2007 before the credit crisis and reached a historical low in early 2009. The January 2010 hiring rate remains near this historical low. It's true that employment losses have stabilized over the past several months, but only because the separation rate has also declined to historical lows. Solid job creation can only take place when the hiring rate starts to increase. One bright spot in the JOLTS data is that the job openings rates did tick upwards in January. But my view is that we're not meeting the employment part of our joint mandates either nationally or in the Ninth District.

I turn next to the outlook for inflation. Both realizations and expectations of inflation remain well within desired ranges. Nonetheless I do continue to be concerned that our large balance sheet, combined with the large federal debt, implies that we face a low-probability risk of high inflation. One way to get a market measure of this risk is to look at the prices of options that pay off if 10-year Treasury yields rise by significant amounts over the coming three years. These prices reveal that market participants see the risk of such an increase in Treasury yields as being highly elevated by historical standards, although I'm happy to report that they have declined significantly since I joined this Committee [laughter].

Finally I turn to the condition of financial markets. Corporate bond risk spreads and interbank lending spreads are at normal or below-normal levels. Treasury and equity volatility are at near normal or below-normal levels. Financial markets are now functioning much better

than they were in late 2008 or early 2009. As I emphasized at the last meeting, improvement in the conditions of financial markets is an important consideration when we turn to policy. There are many forms of long-term, relatively riskless debt available for investors. When markets are functioning poorly, cross-market arbitrages are difficult—these different assets are essentially traded in distinct and relatively small markets—so our interventions, either sales or purchases, will have big price effects in these conditions. When markets are functioning well, as they are now, these roughly substitutable assets are traded in a single well-integrated market, so our interventions, either sales or purchases, will have only small price effects. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Well, it's about 10:30. Why don't we take a 20 minute coffee break? See you at 10:50.

[Coffee break]

CHAIRMAN BERNANKE. Are we ready to recommence? All right, why don't we turn to the Vice Chairman?

VICE CHAIRMAN DUDLEY.³ Thank you, Mr. Chairman. I agree with the consensus view that the outlook has not changed much at all since the last meeting. I'd like to point out just two things. Consumption is a bit stronger, but I think you also have to note that the compensation trend was revised down, so the saving rate is also lower, and that may exert some constraint on how fast consumption can continue to grow. On the capital spending side, I think it's true that we're seeing some strength in technology spending, but I think, as others around the table have noted, policy does seem to be inhibiting the bigger kinds of investments—for example, whether to locate a plant in the United States or overseas? So I'm not sure how big or sustainable this bounce in technology spending is going to be.

³ The materials referred to by Mr. Dudley are appended to this transcript (appendix 3).

In terms of risks to the outlook, I want to talk about two things. I want to talk a little first about this issue of disinflation. I handed out these two figures because I thought they were pretty good at getting at this whole issue of what's happening and how important shelter is in terms of the disinflation that we're seeing. Figure 1 basically looks at core CPI inflation with and without shelter, and on both bases you're seeing disinflation. Obviously, shelter is a big factor in terms of pushing down the level of the core so much, but I think you can't dismiss the low level of core just on the basis of shelter; and that's consistent with President Fisher's and others' remarks on the trimmed mean. Figure 2 looks at what's happening to all of the components of the core PCE index prior to September 2008 and afterwards. Looking at this chart, you see a lot of data points below the 45-degree line, and that implies that disinflation is broad. It's interesting that the two dots that are the furthest above the 45-degree line are used motor vehicles and new motor vehicles; and the used motor vehicles, as Glenn pointed out to me when we were talking about it during the break, was partly due to the "cash-for-clunkers" program and what's happening in terms of its effects on the supply of used cars. You'll also notice on this figure that the housing bubble, in red, does not really stand out relative to the other components. So I think this tends to underscore the fact that the disinflation that we're seeing is pretty pervasive.

The second thing I want to talk about very briefly is the fiscal sustainability issue. I think it's a risk to the outlook. I have two concerns. The first concern is that when market participants become worried about fiscal sustainability in the U.S., they may start to price in bigger risk premiums, so long-term rates would go up. And, the second concern is that, if that were to happen, it could actually provoke or necessitate earlier fiscal consolidation. Either or both of those things would actually exert constraint on economic activity. I think this risk can't be completely ruled out, given what we saw happening in Europe. The Greece situation is clearly in

a better place than it was six weeks ago, but a lot of other countries in Europe are in similar positions, and they have much more economic weight; and our own budgetary situation isn't very good either. So the risk of contagion, perhaps from Europe to the U.K. and then on to the U.S., can't be completely ruled out.

Both these risks—disinflation and fiscal consolidation—obviously underscore in my mind why it's very premature to tighten monetary policy now. I'm very much on the side of keeping stability right now in terms of the monetary policy course and the message that we're sending people. But we'll talk a little bit more about that in the monetary policy round. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Like the others, I saw the incoming data suggesting that the economic expansion is proceeding about as expected, that is, for a gradual recovery that, over time, should slowly begin to put a dent in the considerable margins of unused resources. I think the odds of either a material softening in the pace of recovery over the next year or a sharp strengthening in growth have diminished over recent months.

The recent strength in retail sales and equipment and software spending are encouraging and do suggest a basis for continued expansion, even after the inventory and fiscal impulses ebb in the second half of the year. But consumption growth did come at the expense of a drop in the saving rate; that's inconsistent with ongoing balance sheet repair. And with income growth revised lower and consumer confidence still in the doldrums, the odds on substantial continued upside surprises from consumption seem limited. Persistent weakness in the housing sector is a concern not only for its direct effects on GDP, which, as President Lacker pointed out, are pretty small given the small size of the sector these days, but also for the possibility that further

declines in prices would reduce household wealth and increase the losses to be absorbed by banks and other lenders.

In financial markets, the lack of reaction to ending our special liquidity programs is a definite positive, as is the extent to which markets seem to be open to large volumes of bond issuance without any upward pressure on spreads or rates. However, there has been little sign of any response in the price or quantity of bank credit to the huge volume of reserves we have injected into the banking sector. Bank loans continue to decline rapidly, and spreads of many loans over benchmarks have risen further. In addition, the money supply growth remains subdued—there's effectively no growth in M2 in the first quarter.

Although fourth-quarter economic growth in our trading partners exceeded expectations, the prospects are for moderate growth going forward. The mood at the BIS the weekend before last, Mr. Chairman, was somewhat more cautious than at the previous meeting you attended in early January, perhaps reflecting the dominance of the Europeans in that group. Economic growth prospects in industrial countries have been revised down a little, and markets had pushed off the expected time of first tightening as they had in the United States. Market reaction to problems in Greece makes fiscal consolidation both more necessary and more likely in a wide range of countries, restraining the rebound in demand. Emerging market economies were tightening policies through increases in reserve requirements in Brazil, China, and India, to control the effects of capital inflows. Moreover, there was a sense of greater fragility behind the expected expansions, importantly reflecting concern about market response to perceptions of unsustainable fiscal paths, especially if such responses were to lead to higher risk premiums on interest rates and problems in banking sectors exposed to sovereign risk and exposed to borrowers and countries with heightened sovereign risk. On net, I don't think we can expect

much help from net exports in propelling our expansion, as is consistent with the Greenbook forecast.

It is striking that the recovery in spending is so measured at such low real interest rates—minus 1 or minus 2 percent real federal funds rates. Expansion is held back by the high cost of bank credit, uncertainty about sales and income prospects, household needs to rebuild wealth, and, as many have remarked, uncertainties about the legislative and regulatory environment. I expect that these restraints will dissipate over time and that some favorable feedback loops will develop between improvements in labor markets and household and business confidence in spending, and between improved profitability and declining loss experience at banks and better credit availability for small businesses and households. I think both of those favorable loops are likely, and I'm somewhat heartened by the conversation around the table, namely, that some of you are beginning to see a little more encouragement from your business contacts. But in both cases I think these are mostly forecasts at this time and not yet supported by data.

There are also some downside risks. We've brought a lot of spending from the future to the present through very low interest rates and through fiscal policy; in many cases, policy explicitly encouraged bringing spending from the future to the present, such as the "cash-for-clunkers" and first-time homebuyers programs. At some point, we're going to get to that future [laughter].

MR. TARULLO. Some of us will, Mr. Kohn.

MR. KOHN. That was a broad "we." We're also aware that rising bank capital and liquidity requirements could damp the easing in credit conditions.

The incoming information on consumer prices suggested a somewhat greater deceleration than had been expected, especially outside the energy sector, to relatively low rates of inflation.

The slowdown has been evident not only in the usual core consumer price indexes but also in the trimmed means. I looked at the trimmed means the way everyone else did—I think President Plosser can take credit for incenting people to look more deeply into price indexes—and they have come down quite substantially over the last year to about 1¼ percent in the CPI and PCE; they do abstract from outliers. The slowdown is evident in the higher frequency data, too. The trimmed mean three- and six-month inflation rates are a little below the one-year trimmed mean inflation rate. So unless inflation picks up, we're going to see continued deceleration there.

Measures of nominal compensation have also tended to slow or hold at very low levels. In my view, the behavior of prices and costs, while inflation expectations remain anchored, tends to confirm that a large margin of underutilized capital and labor resources and a very competitive environment are exerting considerable downward pressure on prices. With petroleum prices having flattened out since last fall, we can expect headline inflation to retreat to these low core measures, well below the 1¾ to 2 percent level favored by most Committee members.

In sum, I see the data since the last meeting as having tended to confirm that there's a considerable output gap; that the gap is unlikely to close very quickly, even at very low interest rates; and that the result is likely to be very slow inflation below Committee members' objectives for some time to come. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. I'm not from the south, and those from the south had witty aphorisms to begin. I'm a Yankee, and I went to a public school in upstate New York, and it was a rambunctious crowd at school. We were all bussed in from smaller towns to go there. And so I can only begin by saying what the principal would say on the loudspeaker.

After the Pledge of Allegiance he would tell us, “Don’t just say something—sit there.”

[Laughter] So let me try to accomplish that.

I think there are a couple of differences in amplitude of concerns from when we last met, though, like most of you, my modal forecast, which is a little less optimistic than the Greenbook, still hasn’t changed much. So let me talk a little bit about those risks are, and then, second, I’ll provide an obvious insight on the nature of this cyclical recovery.

First, I think the European economic risks, as Nathan discussed, are rising as much as we feared. The cyclical story there is not pretty—the recoveries are remarkably weak, even given massive monetary stimulus. I think the near-term trends there are quite troubling. And potential economic growth seems to be falling as well, with rising protectionism, political infighting, a more fragile banking system than many in Europe may have been willing to admit during the darkest days of our turmoil, perhaps a mistaken understanding of what ails their economy, and further extensions of implicit guarantees, all of which have to be doing harm to their productivity, their unemployment rate, and to their growth. I would say that Greece is indicative of European troubles, not the source of European troubles. I take much less comfort than other observers cited in the papers about these “successful debt offerings” from Greece due to its new austerity program. For example, what if we said that there were successful bank offerings after the TLGP came into being? We’d say, “Well, there aren’t successful offerings by all these banks. These are guarantees that the government put in place.” And if I look for new investors in these so-called successful debt offerings, they’re almost impossible to find. The investors in these offerings are the same large institutions that hold lots of old vintage paper who are buying new vintage paper as if to protect the value of the old.

I think the open question is: Will the whistle be blown on the strength of European financial institutions, or won't it? I did share the conventional view that they might just be able to pull it off with less capital than U.S. financial institutions before the crisis and after. But, as we learned in the U.S., once the pressures in markets build, it's not obvious that you can get away with disclosures that are not up to best practices around the world and to levels of capital, which, I think on an apples-to-apples basis, look rather poor.

The periphery, as staff here describes—Portugal, Italy, Spain, and Greece—looks to me to be expanding. The Greek spreads are likely to stay elevated as issuance continues. Even when these spreads come down, we see new sellers in that market, making it impossible for them to come down on a dependable basis. So I don't suspect that we're going to see Greek spreads or spreads of some of the other peripheral nations narrow too dramatically. There could be narrowing, but it could happen because the German and French debt securities actually rise in price.

So European weakness, in general, is bad news for U.S. prospects directly, and indirectly I think there's a real risk of some shock that could find its way into our economy. Markets in the U.S. somehow believe that these shocks are very much of a piece with the events of 2008 or 2009, and that those are behind us. I'm not convinced. If I look at 2010, I think there's a risk of some meaningful discontinuities. If you look at sovereign credits, currencies, political regimes, there are plenty of sources of what could cause that. Take government borrowing, which looks to be exploding in 2010. There should be somewhere between \$3 and \$4 trillion of new net issuance from sovereigns this year. That's three to four times the average of the level of issuance from 2002 to 2008. I think the prospects of what could otherwise be dismissed as sloppy auctions could end up leading markets to get much more concerned. Regarding U.S.

relationships with our big trading partners, an important issue during a period of global recession, I think they aren't what they could be or should be. The greater rhetoric we're hearing from countries that are having their own domestic problems and trying to direct those at the U.S. speaks to some internal weaknesses that we shouldn't take lightly. So a shock in the world this year is more likely than markets expect, and I think such a shock is more likely to originate outside the U.S. than inside.

Now to my second and final point, which is the cyclical recovery. It may just be that this recovery is driven by big firms and not small. And the nature of the cyclical recovery might look different from we've grown accustomed to, based on past recessions. Big firms look more poised to lead, not lag. Big firms' cap-ex seems to be improving smartly, more smartly than smaller firms. February U.S. tax revenues were up for the first time since April 2008—it's hard to get more detailed data, but it looks as if it's largely due to large corporate profits. Big business is leading small business on cap-ex and on confidence. One thing that's harder for us to wrestle with is the implication of that for the labor markets. It's more likely that we'll see continued cyclical upsurge in productivity coming from these big firms than some robust change in economic growth prospects. But this development of the nature of the cyclical recovery certainly bears watching, and I'd be more comfortable if we saw small businesses entering with the same kind of confidence that we've seen in the last quarter from the big businesses. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. The banker outlook remains pretty much the same, with credit losses reaching a plateau and loan demand weak. One banker summed it up by saying, "2010 won't look better, but it will feel better." There is a lot of concern about

regulatory and supervisory issues, and most are worried about the fragility of the recovery. A number of them mentioned a double-dip recession as a possibility, but I suspect they may also be talking about a double peak, because most of them are mainly worried about the unemployment rate.

Given the time frame, I'm going to skip to the residential lending market. Mortgage loan volume is down. The mortgage bankers speculate that most of the borrowers who can qualify for a refinance have already done so, and they're concerned that much of the purchase volume is driven by the tax credit.

In the construction lending area, the builders that remain are still selling off their inventory at a loss. The new product that's going up is smaller, with fewer extras but quality finishes, and at entry-level price points. In some markets, recently built resales and foreclosures are coming to market at prices lower than the cost to construct them. Most markets have multi-year inventory of unsold lots, and higher-end new homes and condos are not selling at all, as they're very difficult to mortgage. Supply and demand for construction loans is weak, with the remaining builders and lenders very skittish. Most lending is for contract homes, as lending for speculative construction requires strong cash investment by the builder, and even model homes are being financed on an amortizing basis. Given the lending conditions, the price levels, the mortgage availability, and competition from existing home inventory, I continue to be pessimistic about any significant pickup in residential construction.

In the existing home market, I could not find a single lender that was having any difficulty moving foreclosed inventory or even one that was deliberately slowing foreclosures to avoid building inventory. The banks that are selling their REO are seeing strong demand from investors and foreign buyers and a high proportion of cash sales. So the bottleneck seems to be

in the foreclosure process. We're now two years into various iterations of mortgage modifications, foreclosure moratoriums, and state legislatures lengthening the legal foreclosure process. The results for the HAMP are likely to be disappointing. At this point, it looks as if modifications will be in the hundreds of thousands rather than in the millions. Lenders, borrowers, and most recently the Administration, are now focused on principal write-downs, short sales, and deeds in lieu of foreclosure.

From the borrower's perspective, many are now tired of struggling to make payments on houses that they cannot afford or that have negative equity. So even those who have received a modification, made all their trial modification payments, and completed all the documentation to make those modifications permanent, are now hesitating as the prospect of a short sale with the ability to walk away, rent for a while, and reenter the housing market later, seems to be an attractive option.

For the lenders and servicers, short-sale agreements provide a quicker, less expensive resolution than foreclosure. Short-sale programs are becoming more formulaic regarding the price the lender agrees to accept and the fixed time period after which the borrower must turn over the home through a deed in lieu of foreclosure. Some lenders require income documentation and perform asset searches to determine whether or not the borrower can actually pay the loan or a deficiency balance; others do not. Some agreements extinguish the debt entirely; others don't. Some provide relocation assistance or cash for keys. I think these programs have the potential to move us through the problem faster, but probably with more inventory coming to market and correspondingly lower prices. However, to the extent that hardship is not documented and deficiencies are not pursued, moral hazard is going to be exacerbated.

Finally, home equity loan and other junior claims make all modifications, short sales, and other foreclosure avoidance programs much more difficult. Those with a strong interest in modifying first mortgages charge that the junior lienholders are just being selfish and ignoring their losses. There do seem to be two categories of second liens. First, those that were originated through indirect channels or as piggyback loans have had very high default rates and have been written off for the most part. But just because they were written off does not mean the liens have been released, and those liens become worthless only in foreclosure. So if foreclosure is taken off the table, those lienholders seem likely to hold out for some payment. The second group, banks with large portfolios of home equity loans generated through branch offices, report that approximately 30 percent of their loans are underwater with combined loan-to-value ratios greater than 100 percent. But of those underwater loans, more than 95 percent are current.

A startling number of borrowers are delinquent on their first mortgages but still paying on their home equity loans. If these loans are modified, the accounting and regulatory rules require them to be written down to the same value that would be received in foreclosure, and in a short sale their position is partially or totally wiped out. So these lenders have very little incentive to come to the table unless foreclosure is imminent.

Programs are now being developed to make payments to junior lienholders. Fannie Mae has a program. The Administration's HAMP effort has a companion program. Various private lenders have programs to offer small payments to second lienholders. But getting the holders of performing loans to accept pennies on the dollar seems unlikely to generate any big participation. None of the current modification programs address unemployed borrowers. Programs are in development that will include six to nine months of payment forbearance, followed by a

modification or a short sale depending on reemployment, but accounting and regulatory rules again require that these loans be written down to foreclosure value.

All in all, it seems likely that the roughly five million loans that are seriously delinquent or in the process of foreclosure will take at least two to three more years to resolve, and that there is still a large dollar amount of mortgage debt to be extinguished. Going forward, if mortgages are to be booked at lower loan-to-value ratios, and those ratios are applied to lower home values or new homes at lower price points, and lower home ownership rates result in fewer homes being financed, it seems likely that the volume of mortgage debt outstanding would continue to contract. Adding to that a debate about the future of Fannie Mae and Freddie Mac that won't start until next year, a private securitization market that seems unlikely to restart until the role of government in housing finance is resolved, and the effect on securitization of the interaction of accounting, skin in the game, and capital proposals, I don't expect a normal housing market anywhere in our planning horizon.

So while consumer credit is beginning to rebuild slowly—and I do believe C&I lending will recover with the economy, and nonfarm, nonresidential real estate volumes are likely to be flat but with better quality—I expect overall lending to stay down as residential construction and mortgage volumes continue to fall. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Let me try to do this in the form of bullet points, with staccato delivery where possible. [Laughter] First point—overall assessment: unchanged. We have a reasonably well-grounded recovery, but it's still halting and there seems little prospect that it's going to strengthen any time soon.

With that in mind and with little else to say, let me go to three contextual points. Point two—most important uncertainty: jobs and job creation, not just because it is an explicit statutory responsibility of this Committee to promote maximum employment, but also, obviously, because any recovery in self-sustaining demand is going to depend on personal consumption expenditures, which, I think, ultimately will depend on job creation. While it is true that the deceleration of job losses and the levels of temporary hiring continue to give reason to hope that significant net job creation is just around the corner, we've been looking around that corner for a little while, and, as David pointed out in his presentation, this is a phenomenon still more anticipated than actualized.

Third point—vulnerabilities of the economy. Here I'm a little bit more balanced. I agree with Bill and Kevin that the fiscal vulnerability is probably increasing a little bit, in the sense that there's potential market reaction to fiscal situations—almost a demonstration effect in Europe may be coming over here a bit.

Having said that, though, I thought it was mildly reassuring, both with respect to the Dubai situation last year and the immediate reactions to the Greek situation this year, that financial markets overall were not particularly thrown off stride. For example, CDS spreads are still up, so it's not as if all of that has just been absorbed. But, it didn't feel as though the markets were so on edge that anything was going to throw them off.

I would also mention on the upside something that has been less remarked. The edginess I felt about foreign exchange markets for a time last fall has actually diminished in response not only to some of the international stresses, but also to increased confidence in U.S. recovery. The strengthening of the U.S. dollar has, I think, removed the concerns that some were beginning to feel about whether foreign exchange markets could themselves be a source of instability.

Ironically, of course, that's likely to provide something of a drag on our exports and thus economic performance going forward, but in a vulnerabilities analysis, it's probably not a bad thing. And finally, as Don mentioned, the withdrawal of liquidity facilities and the change and normalization of discount rate policy raised issues only about whether we were moving towards an increase in the federal funds rate, and I think that also was a confirmation that there is substantially more financial stability now.

Point four—new worries. We always have to have new worries. Like many of you, I've heard a lot of caution from some market participants about incipient asset price bubbles developing in this lengthy period of zero interest rate policy. I think there's little doubt but that a search for yield has been on for some time, particularly since equity markets in the U.S. leveled out towards the end of last year. Having said that and after having made some inquiries and looked at some data, I don't see much evidence of asset bubbles at present. It's a little harder to tell if the very low interest rates over this period have increased leverage in some asset markets to levels that could suggest that we're going to have bubbles at some time in the foreseeable future, but, based on some very helpful analysis from Board staff and from staff in the New York Fed's Markets Group, it doesn't appear at present that there are any obvious suspects. We'll obviously want to watch this going forward, because I think the distinction between, on the one hand, a return to normal levels of risk and leverage and, on the other, a potentially unhealthy buildup of leverage in some asset classes may not be so clear. We should surely be monitoring behavior and experience of our regulated institutions with this issue in mind.

In sum, lots of slack, lots of unemployment, no evidence of inflation, and little evidence of incipient asset bubbles. While I can tell the story of how some of these conditions could turn

reasonably quickly, I don't see any evidence yet that this has happened. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, and thank you all not only for insightful comments, but concise ones as well.

Let me try to summarize and then I'll just add a few observations. Intermeeting data were perhaps slightly weaker than expected, and some bouts of bad weather further muddled the picture. The economy was characterized as flat, fragile, lethargic, choppy, and improving. Generally, moderate growth is projected for 2010, with slow improvement in the labor market and low near-term inflation risks. Private demand needs to pick up where the inventory cycle and fiscal policy are leaving off to create a sustainable expansion. Outside of Europe, foreign growth continues reasonably strong, especially in China and other EMEs, although there are various risks abroad ranging from an overheated China to a fiscally strapped Greece. Financial markets generally continued to be supportive of recovery. Inflation risks appear low in the short run, but may be higher in the medium run, and uncertainty about the forecast remains quite high.

Recent data suggest that retail sales and household spending are growing at a moderate rate, though consumers remain pessimistic about income growth in the labor market, and income and the saving rate have been revised down.

The most recent labor market report was mildly encouraging, and job growth might have been positive except for weather disruptions. Temporary jobs have increased considerably. However, labor market conditions overall remain very weak. Unemployment is high, especially among men, and long-term unemployed are losing skills. The decline in UI claims has stalled, suggesting that layoffs have not entirely stopped, and, while there are signs of hiring, they are still somewhat limited. Firms are quite reluctant to add to payrolls, given the level of uncertainty

about the sustainability of the recovery and about government policy. Nevertheless, some job creation is expected in coming months, as very lean firms are forced to respond to higher demand.

Housing sales and starts have been stalling in most regions, despite various forms of government support. Foreclosures are likely to remain quite high and may depress both housing prices and mortgage quality further. Construction generally is contracting as commercial and industrial sectors struggle.

Some glimmers of optimism were detected among firms, perhaps especially the largest firms, although caution remains the watchword as firms worry about regulatory roulette. Investment in equipment and software is largely for maintenance or updating of technology, and investment in structures continues very weak. Manufacturing looks to be expanding in part because of growing export demand. Other sectors showing signs of life include energy and petrochemicals, agriculture, shipping, and advertising. Construction remains very weak. State and local employment and investment remain tightly constrained by lower revenues.

Public equity and credit markets continue to perform well, but bank lending remains constrained. Mortgage quality is a risk for banks, and housing finance remains troubled, but banks are able to sell their REO. Markets have expressed some concerns about sovereign risk, notably in Greece and other European countries, which may pose risks to the banking system and to the broader economy. Bank capital and liquidity requirements could dampen the easing of credit conditions, which we are beginning to see.

Finally, on inflation, shelter costs continue to account for part of the decline in overall inflation, but core or trimmed measures suggest that underlying inflation trends are moving downward in a broad-based way. Inflation expectations moderated slightly over the intermeeting

period, as seen, for example, in TIPS spreads. Growth in wages and unit labor costs remains low or negative, labor market slack remains high, inflation expectations stable, and productivity growth accelerated. The dollar has also strengthened. Near-term inflation risks appear low and even to the downside, although expansionary monetary and fiscal policies imply some medium-term risks.

Fiscal imbalances both here and abroad could restrain growth if they push up rates, and on the monetary side, a long period of low rates may lead to increased leverage or financial imbalances even if they don't cause inflation.

That's my summary. Any comments? [No response.]

Well, usually the summary is the most useful part of my presentation. I'll say a couple of additional things here. First of all, I think we might as well take note of the fact that this is the one-year anniversary of the March 2009 meeting where we took some very strong measures to add something on the order of about \$1 trillion in additional asset purchases. Since then, we have maintained our low interest rate policy. We have conducted the stress test of the banks. We have managed and closed our liquidity facilities, and the economy obviously is doing a lot better. I don't think that's entirely accidental. Economic growth is where we were a year ago, and relative to the challenges we faced a year ago, I think we should be a little bit pleased at least.

That being said, of course, the economy is still quite weak. I listen to the comments around the table about "optimistic projections" of 3 percent growth, and I ask myself where is that going to take us in terms of labor markets and financial conditions. So this is still quite an unsatisfactory situation, but certainly one that we should feel we have made an important contribution towards stabilizing.

Looking forward, my concern basically is, again, where strong economic growth is going to come from. I think the 3 percent scenario is plausible, but even in that case, there are downside risks. Notably, as people have mentioned, after the big inventory correction, we're going to need private final demand growth to take up the slack from inventories. In order to get its 3 percent plus growth for 2010, the Greenbook is looking for average growth in private final demand at an annual rate of 3.7 percent for the rest of the year. That would be a considerable pickup—more than 2 percent over each of the last three quarters—so there really needs to be some pickup of final demand from where we are. It seems unlikely to come from housing, given what's developing there. In the household sector, I was very pleased to see, as all of us were, the recent consumption spending numbers, which suggest we might have 3 percent growth in consumer spending in the first quarter. But, again, will this be sustainable? Will we see stronger household spending? I note one serious weakness is the lack of income growth. Real disposable income in January of 2010 was essentially identical to what it was in January of 2009, and, indeed, it would not have been that high except for the fact that transfer payments were up 12 percent over the year. So we're looking at a situation where growth in income is not yet transpiring and, therefore, we're relying very heavily on continued confidence in the household sector and the expected rebound in the labor market. Again, we're looking at a situation where we're going to need some pickup in income and final demand to get 3 percent growth, and I think that does pose a risk.

I do think the labor market is looking a bit better. We saw some positive signs in terms of hiring indicators, such as help wanted, workweek, diffusion indexes, and temporary work. At the same time, of course, UI claims have remained quite sticky, and the number of people on

temporary and emergency unemployment is extraordinarily high, and it has not begun to come down.

A point that no one mentioned—and it's rare at this point for me to find something that nobody really mentioned; maybe somebody did and I missed it—is that a big uncertainty about labor market going forward is what's going to happen to productivity growth. The Greenbook is projecting that, after 6 percent productivity growth in 2009, productivity will grow $\frac{3}{4}$ percent in 2010, and that provides a reasonable growth in employment. Obviously, if we get stronger productivity growth and demand is not more robust, then we could have a worse outcome. So there are a lot of uncertainties in the labor market.

Financial conditions, as people have noted, are generally better. There certainly are some risks. I took note of an interesting financial conditions index that was constructed by a number of people, including our ex-colleague Governor Mishkin and others, which gave a very broad-based look at financial conditions. The interesting result was that, although there was a big improvement in financial conditions through most of 2009, once you hold constant the improvement in the economy, financial conditions had become something more of a drag in the latter part of 2009 and 2010. That's mostly due to quantities rather than prices, for example, the lack of rebound in securitization and the lack of rebound in lending. So I think there is, again, still a headwind coming from the financial side.

I want to restate a theme that President Hoenig has raised a couple of times and Governor Tarullo mentioned, which is the question of financial imbalances. As inflation looks a little less worrisome, that's clearly something we want to pay attention to. I think you can break it down into more than one category. I think we need to worry about valuation, that is, bubbles, asset prices. We need to worry about leverage. And we need to worry about underwriting quality.

Those are three separate dimensions, all of which deteriorated during the crisis. As Governor Tarullo mentioned, Board and New York Fed staff have been looking at some of these things, and we have various indicators for stock prices and bond spreads. We have various measures of leverage. We are, after all, bank supervisors, and we're telling the world we need to be bank supervisors so that we can follow this stuff. So I would suggest that we all do it and that we increase our focus on these things. It is possible to try to make an assessment of those risks, and it is very important that we continue to look at them.

Finally, a word on inflation. I have a small thing to add here as well on the debate about OER. There is another important component of the inflation rate which is the nonmarket-based component, and interestingly that turns out to be almost exactly the same weight as OER in the PCE index, and it has been running at 2.6 percent, which is above the rest of the basket. So maybe we want to put those all together in one big element and decide that it's not making that much difference at this point. I also looked at the various trimmed means, and we want to thank the Dallas and Cleveland Banks for maintaining those useful numbers. As the Vice Chairman pointed out, there does seem to be a broad-based slowing, although I think we can't be too complacent, certainly, and among other things, we're still seeing some increase in energy and commodity prices, and that is, of course, something we have to worry about.

So again, I think we should be grateful for what has happened in the last year and the stabilization we've seen. We do look to be in a recovery. I wish it were stronger. I wish the labor market were improving more quickly, and we need to pay very close attention to the real side of the economy. Regarding inflation, we must always pay attention to it. At the moment it seems not particularly worrisome, but certainly we are in a very difficult world in which a variety of issues, including financial imbalances, need our attention as well as the conventional

inflation measures. So let me stop there, and let's turn to the policy go-around, and I'll call on Brian.

MR. MADIGAN.⁴ Thank you, Mr. Chairman. I will be referring to the package labeled "Material for Briefing on Monetary Policy Alternatives." This package includes the draft policy statements as they appeared in the Bluebook, with the addition to alternatives C and C' of alternative language suggested by President Hoenig, in brackets. Also included are a revised version of Bluebook Table 1, summarizing the alternatives, and draft directives.

Your policy decision today takes place against a backdrop of continued improvement in financial market conditions overall, evidence that a moderate economic recovery is on track, and signs that inflation pressures remain subdued and inflation expectations contained. Still, the staff anticipates a relatively slow recovery, with the unemployment rate still at 8¼ percent late next year. And with considerable resource slack expected to prevail over the projection period and inflation expectations steady, the staff sees core inflation this year as edging down to a 1 percent rate and holding at that level next year. Your remarks this morning suggest that many of you have a similar outlook, and, as the Chairman noted, Committee participants may see the forecast as somewhat unsatisfactory.

In these circumstances, it would seem that one question facing the Committee is whether additional monetary stimulus would be appropriate to help reduce downside risks and spur the recovery to a brisker pace that would result in a steeper decline in resource slack and, eventually, inflation at rates closer to desirable levels over the longer run. Under alternative A, page 2, the Committee would provide such stimulus by extending and increasing modestly its purchases of mortgage-backed securities. The description of the economic backdrop in paragraphs 1 and 2 would generally be similar to that in the January statement, but it would note that unemployment is high and that housing activity continues to be sluggish. It would state that, "in light of the weakness in labor markets and prospects for a subpar economic recovery, the Committee judges that further monetary stimulus is warranted." With the federal funds rate at its effective lower bound, the Committee would apply additional stimulus by increasing its MBS purchases by \$150 billion to \$1.4 trillion and extending them through the end of the second quarter. That modification to the program would entail a continuation of MBS transactions at approximately the \$10 billion average weekly pace that the Desk has maintained recently.

Market participants are not expecting any change to the LSAP program, and the staff estimates that increasing MBS purchases by \$150 billion would lower mortgage rates and other long-term rates by 5 to 15 basis points. This announcement could also prompt market analysts to push off the date at which they expect policy firming to commence and more generally lead to a somewhat flatter path for market expectations of short-term interest rates. All in all, the staff estimates that this policy

⁴ The materials used by Mr. Madigan are appended to this transcript (appendix 4).

would provide modest additional stimulus to the real economy that could lower the unemployment rate relative to baseline by perhaps one-tenth percentage point two years ahead.

However, some significant uncertainties would attend this policy. For example, with mortgage spreads already very tight, the actual extent of the effects of additional purchases on mortgage rates is unclear. And the possible effects on inflation expectations are difficult to gauge. In view of such considerations, the Committee might believe that its existing degree of policy stimulus appropriately balances the costs and benefits, and so it might favor the language presented in alternative B, page 3. As in alternative A, this alternative would note that unemployment is still high and is one of the factors constraining household spending. It would mention that business spending on equipment and software has picked up significantly but that housing starts have been flat at a depressed level. The statement would again indicate that the Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability.

In paragraph 2, the Committee would repeat the view that with substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to be subdued for some time. The Committee could add the bracketed sentence, which in effect notes that monetary policy is responsible for controlling inflation over time. Although the wording does not say so explicitly, the sentence could also be read as indicating that the Committee anticipates that inflation would edge up over time from “subdued” rates to somewhat higher rates that are consistent with price stability and thus that excessive disinflation should not be a concern.

In paragraph 3, the Committee would indicate that it is retaining the existing 0 to ¼ percent target range for the federal funds rate and would reiterate that it sees economic conditions as likely to warrant exceptionally low levels of the federal funds rate for an extended period. The Committee would also note that its large-scale asset purchases are coming to an end. In place of the indication in January that “the Committee will continue to evaluate its purchases of securities,” the statement would make the more general indication that “the Committee will continue to monitor the economic outlook and financial developments and will employ its policy tools as necessary to promote economic recovery and price stability,” thus finessing the purchases versus holdings issue that the Committee has previously discussed. This statement would be silent about the Committee’s exit strategy, pending further discussion at the April meeting.

In paragraph 4, the Committee would note that the Federal Reserve has been closing most of the special liquidity facilities that it created to support markets in the crisis and would indicate that the TALF is still expected to close down on the previously specified schedule. The statement at the end of the January statement that the Federal Reserve is prepared to modify its plans to close its lending programs

would be dropped. Our sense is that market participants already see essentially no likelihood that the TALF will be extended.

The Desk's survey suggests that investors generally do not anticipate any changes in the Committee's forward policy guidance at this meeting. Overall, the statement for this alternative seems to be about in line with market expectations, and it would likely prompt little market reaction.

By contrast, alternative C, page 4, and its variant C' would summarize plans for exit and would suggest that the Committee was moving more quickly toward reducing monetary policy accommodation. In paragraph 1, the statement would note various positive economic developments and indicate that a sustainable economic recovery is now under way. Paragraph 2 would recognize that energy prices have recently boosted inflation modestly but would observe that underlying inflation pressures remain muted. It would also say that "the Committee will adjust the stance of monetary policy as necessary over time to ensure that longer-term inflation expectations remain well anchored and that inflation outcomes are consistent with price stability."

In paragraph 3, the Committee would indicate that its fed funds target range would remain unchanged for now but would modify its conditional expectation for exceptionally low levels of the federal funds rate such that it now extends only "for some time" rather than "for an extended period." If it wished, the Committee could provide more specific guidance by indicating that exceptionally low rates were likely "at least through the end of the second quarter." Changing "extended period" to "for some time" alone would likely cause market participants to advance sharply the time at which they expect policy firming to commence; adding "at least through the end of the second quarter" might help moderate that shift a little. But even that language would probably lead investors to believe that policy firming beginning in the third quarter was quite possible and perhaps even likely.

The first sentence of paragraph 4 would provide more information on the Committee's rationale for modifying its forward guidance. In the Bluebook version of the language—the phrase shown in red and bracketed—the motivation is solely to prevent the development of inflationary pressures. In language suggested by President Hoenig, shown in blue and bracketed, the motivation would be to prevent the buildup of financial imbalances as well as inflationary pressures. In this regard, one issue for consideration might be whether the Committee would see an express indication that adjustments to monetary policy were undertaken to prevent incipient financial imbalances as consistent with the dual mandate established by the Congress.

With the Committee preparing to firm policy under alternative C, paragraph 4 would also provide some indication of how the Federal Reserve intended to use the various tools at its disposal to effect the tightening. Although the Committee plans to discuss these issues in detail at the April meeting, I will comment briefly now on the exit strategy language that was prepared for alternatives C and C'. Alternative C

would note plans to continue to test tools for draining reserves, for subsequently scaling up those operations to drain more reserves, and for then increasing IOER rate and the target federal funds rate. The Committee would indicate an expectation that “any sales of the Federal Reserve’s securities holdings would be gradual and would not occur until after policy tightening is under way and the economic recovery is sufficiently advanced.”

Alternative C’, page 5, is identical to alternative C except for its description of some key aspects of the exit strategy. In particular, under this variant, the Committee would indicate that it would let all maturing securities run off beginning on April 1. It would also note that the Committee “will also be assessing the possibility of gradual sales of the Federal Reserve’s securities holdings to accomplish further reductions in the size of its portfolio.” Although both of these changes are presented in C’, they do not necessarily have to be paired.

Market participants do not expect a statement along the lines of alternative C or C’. Depending to some extent on whether the Committee included the bracketed phrase in paragraph 3, investors would revise sharply the time at which they anticipate policy firming to begin and possibly steepen their expected path of tightening. The message they took from the shift from “extended period” to “some time” would be reinforced by the Committee’s discussion of its exit strategy in paragraph 4. Because this would be the first time that the Committee covered such ground in a policy statement, it would likely bolster the sense that the Committee had now set in motion a process that would lead to policy tightening.

Finally, I should note that the directives for alternatives B, C, and C’ incorporate significant changes from recent directives, partly to reflect the imminent termination of the large-scale asset purchases. I might note particularly that for alternative B, the directive, which is shown in the second page from the end of the handout, would delete the sentences that provide qualitative guidance to the Desk for asset purchases and that indicate the Committee’s expectation that asset purchases will cause a significant increase in the balance sheet, again because these purchases are nearing their completion. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Are there questions for Brian? President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. Brian, I have just one question. I saw, in the Bluebook, that there is an analysis of the long-run scenarios for the balance sheet under alternative A and under alternative B. I didn’t understand the logic of not including such scenarios for alternative C. If you could, please talk through that one.

MR. MADIGAN. We did discuss whether or not to include those, President Kocherlakota. Our rationale simply was that it was not very clear at this point what sort of assumptions to employ for all of the variables that the Committee now faces as policy instruments—redemptions, asset sales, the various reserve-draining tools, and so on. We'd be happy to include them in the future, obviously, but we felt that our decision to include them would be better informed by further Committee discussion of these issues.

MR. KOCHERLAKOTA. In some sense those choices are also implicit under alternative A and alternative B, and you're opting for a no sales default across all three alternatives or possible alternatives.

MR. MADIGAN. That's true.

CHAIRMAN BERNANKE. We should have alternative scenarios to discuss in the next meeting. Any other questions for Brian? [No response.]

CHAIRMAN BERNANKE. Okay. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. There has been increased communication about our exit strategy—I think this is a good thing—but I think we're a bit hampered, because we really haven't decided upon yet as a Committee or reached a consensus on many of the facets of the exit strategy, which we've just been alluding to, and I hope we'll continue to make progress on this important topic. As I've mentioned, our choices on the various elements of our exit strategy are all interrelated in some way, and we need to look at them collectively rather than as one-off.

In particular, I think that we need to discuss further our longer-term operating framework, including the appropriate operating target, and that we need to do so in conjunction with the management of our asset holdings as we seek to shrink the size of reserves and move towards an

all-Treasuries portfolio. As the Chairman just indicated, I hope this will be an active discussion on the agenda in April so we can get a sense of where the Committee stands as we, so to speak, hone our exit strategies. I think having a better idea of where we're going will help us decide how we exit.

In general, we want our language to help us implement policy, not hinder us from implementing policy or inappropriately constrain us. Given the economic outlook, I do think it's time for us to seriously consider backing away from the "extended period" language. I would like our language to give us more flexibility with regard to policy than we currently have. The forward guidance language, I believe, is beginning to become a hindrance rather than a help. The longer we maintain it, the more difficult we may find it to unwind from it. We will need to prepare the markets for the eventual start of our exit from this period of extraordinary policy accommodation.

It's important for the public to understand that zero interest rates is not normal policy. In fact, a 1 percent interest rate is not normal policy. I view in many ways the start of moving rates up or selling assets from our portfolio not so much as a tightening in the usual sense of the word, but as a step towards normalization of policy in the same way that we're unwinding our liquidity facilities. With the large size of our balance sheet and with rates at zero, policy will remain accommodative for a very long time to come after we start normalization.

I like the idea of discussing some of our plans for exiting in our statement, but again, I think we need to be careful and choose language that will not become a constraint on us as we try to react to economic conditions. This means being careful not to make commitments to a particular sequencing until we have more evidence on how our tools are working and how the economy is evolving. We are in new territory. We may find that we aren't able to maintain a

particular sequencing and simultaneously meet our policy objectives. From my perspective we ought to be trying to describe a reaction function that depends on the state of the economy to the extent we are able, not on something that looks like a mechanical set of actions that are a function of calendar time.

It probably won't surprise anyone that I'm in favor of alternative C', but with a couple of changes. I would change the forward guidance in paragraph 3 to "some time," period. I oppose an additional clause that says "at least through the end of the second quarter." As I said, our policy needs to be contingent on the state of the economy, not on the calendar. And I wouldn't be conveying that idea that it's tied to the calendar even if we thought economic conditions will likely mean that we won't be raising the target funds rate. Again, I want the description in terms of the state of the economy, not in terms of the calendar.

I had similar views to my colleagues, President Lacker and Fisher, regarding alternative C, paragraph 4: I think the C' language is a little better. I think President Hoening's suggestions for the first sentence would be fine, but I do have some concern about whether that might be read as indicating that the Committee is going to act on bubbles, and that part of it makes me a little cautious. However, in paragraph 4, I would not necessarily commit us to using tools for draining reserves before raising the IOER rate and the funds rate target. I think this locks us in before we know how effective these tools will be; nor would I commit to saying that we're only considering possible gradual sales of assets from our portfolio or that they would only occur after we began to raise IOER rate. Based on our previous discussions, it's not clear that these sequencing decisions represent any conclusions or consensus of the Committee.

I would note here that I believe to a large degree that President Kocherlakota's view of the functioning of financial markets is correct. In a market where longer-term and short-term

rates are integrated and where we have an appropriately functioning term structure, there may not be much difference in the effect on longer-term interest rates of selling longer-term assets versus the expectation effects of beginning to raise the IOER rate and, through expectations of a tightening cycle, raising long-term rates; it's not clear how those two pieces could fit together. I think those are the kinds of interactions we need to explore as we think about our exit strategy.

Let me turn briefly to alternative B, because I don't think alternative C will be the consensus here. As I've discussed in previous meetings, I like the idea of conveying that it is monetary policy actions rather than structural features of the economy that influence inflation over the longer run. Thus, I am strongly in favor of including the bracketed sentence in paragraph 2. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I strongly support alternative B. With no change in the federal funds rate through 2011, the Greenbook still expects an unemployment rate above 8 percent, and most measures of core inflation are around 1 percent. My own forecast is not significantly different, implying at the end of 2011 we will still be well below my inflation target and well above my estimate of full employment with no change in interest rates. If this forecast is right, the "extended period" language will need to remain for an extended period.

In the popular press, many have raised the concern that keeping interest rates at very low levels could spur a leverage-supported bubble in asset prices. While I find the historical evidence for this connection ambiguous at best, I see no evidence currently of excessive extensions of credit in this country. In fact, my concern is the exact opposite, that even at these low interest rates, lending is shrinking, not growing, and leveraged financial institutions are still deleveraging.

In assessing the risk to a policy of keeping rates unusually low, I see an important asymmetry. Large positive shocks would get us somewhat closer to our desired targets, but still leave us plenty of time before a tightening would be required. Large negative shocks, on the other hand, would be difficult to offset and would push out further the date we reach either element of our dual mandate. In short, there is little risk of growing too fast, but a significant risk if the economy grows too slowly.

In terms of the questions posed on reinvestment strategy, I would use the following two principles. First, the reinvestment strategy should be consistent with the interest path. If we need to remain accommodative, any reduction in reserves should be done in ways to minimize the impact on borrowing costs of households and businesses. Second, in the long run, we should return to an all-Treasury portfolio, but, in the short run, we should be focused on getting the right macroeconomic outcome.

Given my expectation for the need for accommodative policy for some time and my concerns that selling of MBS will have a more significant impact on borrowing costs for households than Treasuries, I would not expect to sell any mortgage-backed securities until after we have begun tightening. It is quite possible that the recovery is slow enough that sales of MBS will not be required at all. I would be comfortable not rolling over some Treasury securities if it was viewed as desirable to reduce reserves more quickly and the impact on yield was minimal. I would suggest a gradual reduction in rollover so that we can determine the potential impact. Assuming yield movement is minimal, we could continue to let Treasuries roll off. Once we had reduced our balance sheet to low levels of excess reserves, we could replace mortgage-backed securities as they rolled off with Treasuries eventually returning to an all-Treasuries portfolio.

Finally, I would not retain the bracketed sentence in paragraph 2. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. In the interest of time, we will be discussing the issues of balance sheet adjustment in April.

MR. ROSENGREN. Okay.

CHAIRMAN BERNANKE. Let's not all give those views now. Everybody will have a chance to discuss it. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I favor alternative B, and I would exclude the bracketed sentence which is arguably redundant, given the last sentence of paragraph 2. The economy is clearly operating far below maximum sustainable employment, and inflation is undesirably low. Under these circumstances, I see no case now for tightening monetary policy, and this includes any additional language that would trigger changes in market expectations about the pace of tightening. I found it striking that none of the alternative scenarios in the Greenbook have an increase in the funds rate this year. Furthermore, I believe that the risks associated with tightening prematurely still exceed those resulting from tightening too late.

I think we've been quite clear that the promise of low rates is not unconditional or calendar-dependent. Rather it depends on explicit economic conditions, including "low rates of resource utilization, subdued inflation trends, and stable inflation expectations," conditions that still prevail. I think this guidance does not bind future policy to the mast. Rather it helps inform our passengers of the likely direction of the journey, and that type of communication facilitates the transmission of policy.

It's true that the "extended period" statement isn't explicitly conditioned on developments in asset and credit markets, and I agree with President Hoenig and with the

comments of the Chairman and Governor Tarullo that we should be considering the possibility that our monetary policy could foster the emergence of new financial imbalances, and that we should be monitoring financial markets closely. But I would just say at this point that I, too, do not see evidence that excessive investor risk-taking has developed. As supervisors, we have potent regulatory tools at our disposal to address these risks, and I believe that we need to use them to ensure that financial imbalances do not emerge.

At this point in the cycle, with exceptionally high unemployment and very low inflation, I believe our policy actions should focus squarely on our mandate for price stability and full employment.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I'm not in favor of alternative A. I see no evidence that further expansion of the LSAP would be appropriate at this time. However, I like elements of both alternatives B and C'. I like B because I believe the current high rate of unemployment and low levels of expected and realized inflation support continued use of the "extended period" language. On the other hand, I'm in favor of communicating our exit strategy immediately as is done in alternatives C and C'. I don't see a logical reason to wait to start communication until we drop the "extended period" language. In terms of exit strategy, I liked C' better than C, without the language in blue type that's included in C'. I indicated in the economics go-round that I remain concerned about the inflationary risks of our large balance sheet. Given those current concerns, I like C' because it allows the possibility of sales beginning before raising rates, although it does not necessarily require that. Likewise, C' is explicit about our desire to run off maturing and prepaid securities.

Putting these thoughts together, I support alternative B with the inclusion of a new paragraph 4, which would be paragraph 4 of alternative C'. To be consistent with the rest of alternative B, I would change the first sentence in paragraph 4 to refer to "an extended period" rather than "for some time."

Keeping the Chairman's admonition about time in mind, but having been in favor of C', I have to say something about the exit strategy. I will tax you with my thoughts on that, I hope briefly. I think the Bluebook expressed some concerns that paragraphs like C' 4 may generate uncertainty about our exit, and so may lead to untoward asset-market volatility. I'm very sympathetic to these concerns. The right answer is not simply to avoid the topic entirely, as is done in alternative B, but rather to improve upon C' 4 by being much less vague about our intentions. For 2008 and 2009, the Committee was explicit about timing and quantities. We should be explicit about timing and quantities during our exit.

In my memo on reverse tapering, I offered one way to proceed. One thing we should be actively considering is committing as much as possible to an end date and to a rate of sales. In the meeting last time, I think we said we all wanted to be out of the housing market and back into an all-Treasury portfolio eventually. I would like to be explicit about what "eventually" means and state that we anticipate not having agency securities in our portfolio at the end of a given date—I'll suggest 2016. I'm not wedded to 2016, but I strongly prefer it to be an end date in this decade as opposed to the 2020s or 2030s or President Rosengren's strategy, in which I think it would take until 2040 before we got out of agency MBS. In terms of the speed of sales, I recommend we explicitly state that, through the end of 2016 or whatever end date we choose, the Federal Reserve would put a cap on sales. I'll make another suggestion along these lines: \$25 billion of assets in a month.

I think the big concern among market participants about our sales procedure is that, once we start selling, we'll go crazy and start to sell everything in a very short period of time. I think we should commit to not being that kind of actor in the marketplace. Now, I think that my proposed slow rate of sales would have little in the way of price impact, given the kind of financial market functioning we're seeing right now. The results of the March 2010 working paper by Gagnon, Raskin, Remache, and Sack were suggestive of such a notion. In March of 2009, a year ago, the Fed announced the decision to buy up an additional \$750 billion of agency MBS over the coming nine months. The working paper estimates the impact of this purchase on agency MBS yields to have been about 30 basis points.

I'm proposing selling that same amount of agency MBS, or less, over a two-and-a-half-year period. If financial markets are functioning much better, I would conjecture that the price effect of such sales would be considerably less than 30 basis points. As I said, I propose an end date and a sales cap. Those would both be satisfied by 2016 at a pace of \$25 billion a month, even if we wanted to wait to start to sell. If we begin sales in mid-2011, 15 months from now—we'd like to start sooner—but if we wanted to wait that long and sell \$20 billion of MBS per month, that's inside the cap, we will eliminate agency securities from the balance sheet sometime in 2015. This cap on sales would also imply that we would normalize reserve balances to a desirable level sometime in mid-2013. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. You know there are some who hold that 2010 is the last year of the previous decade. [Laughter] President Fisher.

MR. FISHER. Mr. Chairman, I mentioned my questions to Brian, and you summarized eloquently and reminded us that we have accomplished a great deal, and to be sure the liquidity measures we undertook, I believe, prevented a financial meltdown and restored the economy—

pulled us back from the abyss. We're now undoing all of these initiatives because the markets for interbank lending and commercial paper and money market mutual funds, asset-backed securities, and so on have been restored and have been re-liquefied. So we've normalized in almost all areas but one, namely, we are maintaining zero interest rates for interbank lending, promising to do so for "an extended period," despite the fact that the banks and the debt markets at all points on the yield curve and across the range of quality have also been restored and, in fact, are, as Governor Kohn pointed out, at least in terms of excess reserves, awash in liquidity.

President Yellen had a very interesting phrase just now. She talked about the likely direction of the journey, and I think that's the key point here. I think it's important for us to spell out where we are likely to go. As I mentioned in my summary of the economy, I don't believe we're going to have inflationary pressures for the foreseeable future. I worry enormously about absorbing this big slack we have in labor. But I also worry about how people view us over the long term, and I'm quite worried about our balance sheet.

Not to put too serious a tone on this—but it did catch my eye—there was a very good op-ed by Mikhail Gorbachev in the Sunday *New York Times* when he was talking about what went wrong. As they were celebrating *perestroika*, he said he didn't realize that the radicals were pushing us to move faster and the conservatives were stepping on our toes preventing our forward movement. I think we have to be very careful here not to take too much comfort in what we've done, because we'll be judged by where we're likely to go. What I worry about in terms of where we're likely to go was touched on by Governor Warsh and others at the table. We have an enormous amount of Treasury issuance coming forward. We have an enormous amount of sovereign debt issuance coming forward. No one mentioned this, but it was covered fairly well

in the *New York Times* this morning, there's a huge wall of maturity in 2012 in terms of corporate debt, the debt that's going to have to be rolled over for LBOs and for junk.

By postponing laying out the road map, that is, the likely direction of the journey, as President Yellen referred to it, I'm just concerned that we are boxing ourselves in. If rates were to rise because of the factors that Governor Warsh mentioned or other factors in the marketplace, I could see this Committee, if we continue down the current path, saying, "We dare not sell because we'll realize capital losses." One hundred basis points leads to \$100 billion, or whatever number you mentioned earlier.

I would like us now to lay out our path. I'm in favor of alternative C', but I agree with President Kocherlakota that a melding of B and C' might be a wise thing to do, with a slight variation, and that is that I would like that fourth paragraph to be in B. I would accept the fact that we keep the phrase "for an extended period." I think that would mitigate whatever negative influences we're worried about in terms of the market reaction. We're saying we expect to hold rates low. I would prefer "for some time"—I know I can't sell it at the table. But if we say "for an extended period" and then we marry it with that road map, the likely direction in which we are going, as stated in C' paragraph 4, I think that would be a good combination, and that's my recommendation, Mr. Chairman. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I will be prepared to discuss the asset sale issue next time and perhaps meld it into the statement in April after we have a full discussion, but not at this meeting. I see a long period of inflation below target and output below target even with very low interest rates. I don't see a need to prepare for an interest rate exit at this time. I think that the decline in inflation and edging off of some expectation measures suggest reduced risk of

inflation moving higher, and I don't see much evidence that this massive quantity of reserves is having any material effect on bank behavior. So I don't see any reason to start the tightening process now, and I would retain "extended period." It is conditioned on the economic analysis. I think the economic circumstances are moving about as we expected, as everyone has said, and not suggesting there is a need to tighten any time soon. We've had some demonstrations of the market sensitivity to hints of exit, and I think having "extended period" in the announcement has helped us talk about and test our exit tools without setting off persistent market speculation. So it has been very useful in that regard.

I do think it has been unfortunate to have this definition of three meetings out there for "extended period," because I think it means that we don't have some of this flexibility to move. As soon as we go to "for some time", everybody will say "that means after two meetings" because the three-meeting definition is out there, even though the Committee never defined it that way. So I don't think we have the flexibility to tinker with the language before we're sure we know we want to move pretty quickly. I don't see, so far, low rates as having greatly adverse consequences for financial stability, though I agree we need to monitor it. The bond spreads, equity prices, I think, are still in line with fundamentals.

And given my expectation that both inflation and output and employment will remain below our objectives for a long period of time, I would have a very strong preference for using supervision and regulation to counter any hints of instability in financial markets or dangerous situations in financial markets rather than have those measures fall even further below our objectives.

With regard to the bracketed sentence in paragraph B2, there's a very similar thought in the end of paragraph 3. I like the sentence at the end of paragraph 3. I don't see any reason to

have another sentence in paragraph 2. It singles out inflation as if we're not paying equal attention to both parts of our dual mandate. So I would strongly object to keeping that bracketed sentence in paragraph 2. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I support alternative B with some modifications and my modifications are so substantial that we may not recognize it. [Laughter] In paragraph 1, I actually like the "however" sentence, which qualifies our description of the economy. I also like the "however" sentence from alternative A actually, which is "investment in nonresidential structures is still contracting, housing activity continues to be sluggish, and employers remain reluctant to add to payrolls." I think this employer reluctance to add to payrolls is a key feature of the economic situation, maybe we should acknowledge that.

In paragraph 2, I'm still in favor of substituting paragraph 2 from alternative C and C'—they're identical. I like that language better on this dimension. As I've said many times in our debates here, I feel that there's an overemphasis on the slack term in alternative B, and it puts more weight on the idea that there's a lockstep statistical relationship between slack and inflation than I think is warranted. I also have a thought about the issue that the statement should combine monetary policy with resource utilization when we talk about inflation. A second best would be to include the bracketed sentence in alternative B2: "The Committee expects that over time and with appropriate monetary policy, inflation will run at rates consistent with price stability." But I prefer the language from all of paragraph 2 of alternative C and C'.

Concerning the "extended period" language, I'm increasingly concerned that we are telegraphing a time-dependent policy with this wording. I don't think we mean it that way, but it's being interpreted that way. I don't think we're in a position to alter this today. I think the

best course of action on this would be to switch to a completely new and different and hopefully more explicitly state-contingent wording. The markets will then have to adjust to this new wording, but it will set out and convey what the Committee has in mind. I think it might knock the markets off the idea that a rate hike is imminent this fall, which is too early according to our staff analysis, as several people have noted. There's hardly any scenario, according to the staff analysis, that would lead to making that kind of adjustment in the fall. I am concerned about the mismatch between market expectations and staff analysis and to some extent Committee views. I think better aligning these expectations might improve prospects for the economy today.

Alternative B does not give forward guidance for the asset-purchase program. My question is: Why not? Why give forward guidance for one aspect of our policy and not for another? I'm not going to go into too much here, but just in terms of the statement, I think passive approaches to the balance sheet runoff strike me as being far from optimal policy. Expectations of the future of quantitative easing policy are important for economic performance. Markets will build in expectations whether we shape them or not. So we should go ahead and try to shape them.

One way to offer some guidance for the asset-purchase program would be to include paragraph 4 from C'. C' has Treasuries rolling off the balance sheet and includes language saying that the Committee is evaluating asset sales, which I think is an accurate description of the situation. I do not like the C version, which unnecessarily locks us into a timing protocol for our exit. That kind of protocol is to drain reserves with term deposits and possibly reverse repos, raise the interest rate on excess reserves, and then sell assets later, maybe much later. I prefer a timing protocol which would remove quantitative easing as appropriate as the economy improves and then raise rates later, possibly much later, and possibly in conjunction with the use of term

deposits and reverse repos. That's a last-in first-out policy. I think that would take some pressure off the interest rate move that was dominating market reactions to this Committee.

I think it's far from clear that a protocol of raising interest rates first is the optimum one. Arguably, the reserve-draining that may accompany the interest rate move takes back much of the quantitative easing in conjunction with the increase in interest rates. Not to put too fine a point on it, but that could be a 1937-type mistake, and I think we should analyze that very carefully. It may make more sense to withdraw quantitative easing at an appropriate pace and then focus on short-term interest rates later.

I also agree with President Fisher's concerns about the possibility of selling MBS at some later date with higher interest rates. Suppose that we do get into the situation where we have caused a lot of inflation. We don't expect that we'll cause a lot of inflation, but now interest rates are higher and we're reluctant to sell our MBS because of capital losses. That's a "train wreck" scenario that we have to take pretty seriously. So I appreciate President Fisher's bringing that up. Thank you.

CHAIRMAN BERNANKE. You're in favor of B? If I can summarize your statement, it is you're in favor of B. I'm just joking. [Laughter] Again, we will be discussing all of these issues. Just one comment on the train wreck is that, if we wait a couple of years, we'll be a lot more advanced in terms of stuff running off as well. So the calculus will change over time. Who's next? President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. A couple of comments to begin with. I appreciate the reference to supervision, and I've been involved in it for a number of years, and the thing that this very much reminds me of is more of a "back to the future" kind of environment, because I have been through the energy price crisis and the agricultural land crisis

and the Long-Term Capital Management crisis, and there are many similarities. And to that point, I know that we can't necessarily identify bubbles. That's not my point. My point is that we do tend to create conditions that invite bubbles, and that's what I'm concerned about as we look forward. I do realize—very, very much—that the fundamental challenge for this Committee is to balance the near-term economic conditions with the longer-term risk of inflation, but, to my mind, also financial imbalances and financial stability. That's a part of the challenge we have.

Certainly, current conditions warrant a low interest rate environment—I'm not arguing that point. But I am equally concerned that the longer-run risk to financial and economic stability warrant eliminating our commitment to exceptionally low rates for an extended period. My concern is that we need to give more weight to these longer-run risks now, before we actually see them and ask "Is this a bubble?" because by the time you ask that question, you're probably too late. My concern is that, in not looking at the long run, we may keep rates lower than we should longer than we should, thereby creating the conditions that foster the future imbalances that I worry about. The Committee needs the flexibility in the coming months to move from the emergency level of accommodation implemented during the financial crisis a year ago to a level of accommodation that appropriately balances—and remember I said "level of accommodation"—the short-run and the longer-run macroeconomic and financial risks that we face.

What are some of the longer-run risks that I think about and worry about and I know all of you do as well? While the research is early and not typically included in most models, some past crises I, at least, have observed have stemmed in part from exceptionally low interest rate guarantees, which have contributed to the buildup of financial imbalances—I think we've seen

some of that over the past decade—encouraging leverage and facilitating credit booms. Over the past decade extensive resources under those conditions have been channeled to residential and nonresidential construction and to financial markets. While they have benefited the financial institutions, they also have penalized savers. I know the reasons for maintaining low interest rates are important—we’re trying to maintain the broader economy—but there are consequences. And finally exceptionally low interest rates and the Federal Reserve’s large balance sheet, if maintained too long, should lead to an unanchoring of long-run inflation expectations. That’s the last of the issues that I have been trying to bring up and have brought up in the past.

So in light of these risks, there is, I think, a case for modestly raising the interest rate on reserves and the federal funds rate target sooner than the Greenbook or the markets necessarily assume. I’m not talking about now, but I’m thinking sooner than the Greenbook and the markets. Any such move, if it is to be effective, will be some surprise to the market, of course, but less so if we remove our current guarantee of exceptionally low rates. And if we remove it, we stop this issue of “What does it mean? Six months? Or three months?” and so on, which only creates its own set of uncertainties. I think we ought to have some flexibility in case we need to begin to raise rates late this summer, to start bringing them back to 1 percent—which I think of as a reversal of the emergency actions, not really a tightening of monetary policy. That flexibility should be ours, and we can’t have that until we get rid of this language.

Turning to the exit strategy, I know we’re going to have the discussion at the next meeting, but I generally support C’, and if I had my druthers, I would say we’re going to start redeeming government securities in April and not wait until after our next meeting.

I’ll stop with that, except to say that for me C’ is where we ought to be heading. The reason to begin tightening policy soon is not simply or even primarily to prevent the issues

around inflationary pressures immediately. That's longer term and important. Rather it is to prevent future buildup of financial imbalances and reduce the risks to longer-run macroeconomic and financial stability that come from maintaining a commitment to exceptionally low rates for an extended period of time. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I support alternative B. In my remarks in the economy go-round, I highlighted some differences, and some others around the table did, in my sense of the economy and outlook versus what is in alternative B and in the Greenbook, but those differences aren't large enough for me to take issue with the language. So I'm okay with the language in the first paragraph.

I see little value added in the bracketed language in paragraph 2. We already have the conditionality statement at the end of paragraph 3 that the Fed is monitoring risks to price stability, etc., and will take appropriate actions based on revisions to the outlook. So this statement seems to me to be quite balanced and appropriate.

I favor keeping the "exceptionally low levels of the federal funds rate for an extended period" language. I don't see the economic case for changing the language at this time. I think changing to "for some time" will be interpreted as a signal that tightening is imminent, probably in the next three meetings, which I'm not prepared to support quite yet. So it's obvious that I don't support the inclusion of the bracketed language in alternative C of "at least through the end of the second quarter." I think this is too short a time frame and too strong a commitment.

Regarding the language in alternative C and C' that describes the sequencing of events in draining reserves and raising interest rates, I think that, once agreed to by the Committee, this would provide useful information to the public about the exit strategy. However, I think this

information is better explained in testimony, speeches, and press conferences where it can be carefully framed. My impression from feedback received from market contacts is that this approach has been fairly effective in raising public understanding of the Committee's thinking about the exit strategy. Again, the inclusion of such an explanation could be interpreted as a prelude to an earlier move of the policy rate than many on the Committee may be contemplating.

Finally, alternative A lays out a recommendation for additional MBS purchases, and, while I don't support such an action today, it does raise the question of what we would do if our forecasts turn out to be too optimistic and warrant further accommodation because of a double dip developing or something like that. So I'd like to see some contingency discussion about policy options if the economy appears to be dangerously weak. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. I would like to associate myself with the compelling arguments of the Committee participant who is catty-corner from me, President Kocherlakota, about combining alternative B with C'. I think that has a lot to recommend it. And although I would personally make modifications to C', I think that doing it sooner rather than later makes sense. I'd be willing to support doing it immediately, but doing it after the April meeting at which we have plans to devote more time to discussing our exit strategy, makes a lot of sense as well.

I strongly support the idea of keeping the "extended period" language over the horizon of introducing the public to our exit strategy and our plans. I think that makes eminent sense. I'll also say that I thought a people made good arguments about the idea that at our first sale markets are going to go a little bonkers and just be totally perplexed about what we're going to do next, though it's a bit of a red herring. We were very careful about communicating a pace and

committing to it, following through, on the way up. And I would expect, if we adopted an asset sale program, we'd find a way to do our best job of communicating a steady, moderate pace for our reductions. Besides—I made this point last time, maybe not that effectively—we are going to take a first step. By definition, the probability of a second step will rise, because, before the first step, the probability of a second step is zero. You can't do it before you take the first step. So, inevitably, we're going to get a reaction in markets, and I don't think that should overly dissuade us. We always get a little burp when we turn, and we can just hope that we communicate it clearly and that it's a manageable change and one that aligns well with what we think about how markets ought to react.

There was an argument articulated at our last meeting that the prospect of capital losses ought to dissuade us, or is an argument against or a danger to selling MBS. I'd just note that, thanks to an accounting policy change recently adopted by the Board of Governors, we no longer need to fear capital losses, because they would merely be accounted for with an offsetting addition to our assets in the form of future interest on Federal Reserve notes to the Treasury.

I want to reiterate this. I think it's intuitive to think about a balance sheet path, and then figure out the order in which we're going to do things. From that point of view, as you know, I still favored selling MBS first—I think that makes the most sense. The language in C', paragraph 4, still places term deposits and reverse RPs in temporal priority as draining tools. I was a bit surprised to see that. Like President Fisher, I was a bit surprised to see the testimony and the way it formulated the priority. I didn't come away from January feeling as if we had settled that. And, as you know, we're going to discuss this further in April. So I would support B with C', combined this way.

About financial imbalances, I can appreciate, just given the history of what has happened, the role of financial balances in macroeconomic growth and in monetary policy. But I'm still very unclear myself about whether it's a separate factor or whether it's something that's related to future growth in a way that we ought to respond to it. And I fear, as President Plosser said, that articulating financial imbalances as an objective will lead some to believe we have the capacity not only to judge inappropriate financial market behavior ourselves but also to eliminate as much financial instability as some people may hope. So I'm very wary of going down that path. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. For your future intellectual reputation, President Lacker, I'd like it to be noted that you were smiling when you made that point about the accounting.

[Laughter]

MR. LACKER. Silver linings.

CHAIRMAN BERNANKE. Yes. President Evans.

MR. EVANS. Thank you, Mr. Chairman. My view hasn't changed since the last meeting. Substantial monetary policy accommodation is still appropriate. Alternative B captures this need as well as other factors that justify this policy stance.

I don't favor including a sentence in paragraph 2 on inflation. It seems a little odd to me. I don't think it would be well understood. "The Committee expects that over time and with appropriate monetary policy, inflation will run at rates consistent with price stability." This is usually a phrase that we use when inflation expectations are too high. If we use this sentence today, it requires that everybody understand that we're below our inflation target, so the appropriate policy would be to goose things a little bit. I just think it would cause confusion.

The sequencing in alternative C and C' is intriguing, and I certainly accept putting this off until April for a full robust discussion. But I have to admit, with the enormous accommodation that we have in place, appropriately, I think it's essential to have in mind the dynamic plan for where monetary policy is going. I just can't really accept alternative B repeatedly without having in mind some idea of what future monetary policy actions are going to be, in this context. I think it's critical to think about future policy tightening in the context of a baseline outlook, in terms of the models that we're presented with—our best efforts, such as FRB/US, the Greenbook analyses, and FOMC central tendency projections. I favor thinking about them seriously. And that's what we have for looking into the policy future.

Assuming that these forecasts basically hold—they're in the ballpark—this is what we're expecting: We're expecting unemployment to move only slowly—the unemployment rate might break through 8 percent sometime in 2011, if the Bluebook's chart 7 is correct; in terms of economic growth, we're not sure about what the sources of growth are going to be, but I think it'll be stronger than labor markets alone suggest, though we'll still have a sizable resource gap; core inflation is expected to be about 1½ percent at the end of 2011—maybe medium-term inflation expectations would have a slightly higher range for 2012—but that's the situation that we'll be in.

I won't venture into the April sequencing discussion now, but chart 7 in the Bluebook implies that the funds rate will be zero at the end of 2012. Although I don't trust this model analysis completely, other things could happen. This is sobering to me. And I guess my question would be: Which analyses suggest something different than this? We all have fears of risks. At the moment I can't see them that clearly. So I can imagine, much as President Rosengren indicated, that alternative B will be appropriate for an extended period. And I'm a

little concerned that once we signal that the alternative C preparations are appropriate, there's going to be a lot of momentum. I think President Lacker was capturing that when he said something like, "Even as we have this sequencing, the 'extended period' language might still be appropriate." I think containing that momentum is going to be tough. Once we start, the train keeps running and the next thing we know we'll be talking about tightening. If we could separate it as well as President Lacker and President Bullard were suggesting, then I'd find that pretty acceptable. But I am kind of concerned about that. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I'm from the boring Midwest, so I don't have a pithy quote on brevity, but I am going to be very brief. I support alternative B. In my view, policy needs to remain accommodative while we're still waiting for clear evidence of a self-sustaining recovery and the abatement of any further disinflationary pressures. I prefer to make minimal changes to our statement, so I would not include the bracketed language in paragraph 2—I'm concerned that it would be a distraction. Finally, I, too, am looking forward to a time when we can communicate our exit strategy in our statement, so I'm hopeful that our discussion at the April meeting will move us closer to that possibility. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. I, too, support alternative B, although I would say that I think that the formulation we have in alternative B, come our April meeting, might well be outstaying its welcome. I think the bracketed language is accurate in and of itself but is likely to be quite confusing, and for that reason, I think it should be struck.

Let me turn, then, to a view on rates. I think that the view on rates expressed in the Greenbook would be a surprise to the markets, if that ended up being the policy view. And it would be, frankly, a surprise to me. I think the language we have in alternative B on “exceptionally low” and “extended period” served a very useful purpose for us when we put it in, so we shouldn’t be troubled by its existence now. It showed a demonstrated perseverance on these rates. I think that it now looks to markets to be somewhat more like an on/off switch than the dimmer switch we wish it were. So my sense is that we’re going to have to use that; that is, we may now be stuck with this brutal on/off switch.

But we very effectively brought the discussion of liquidity facilities into the statement. We then wound them down in the statement, and we carried on a very useful dialogue with markets. I think, come our April meeting, with the likely continuation of “exceptionally low” and “extended period,” we should then bring in the balance sheet discussion of Treasury redemptions and the discussion of MBS sales. I think that is a fertile way to do it. That lets us be more flexible in the statement without ripping the tough bandage off interest rates, which markets have now assigned to this language. I think the Committee is not ready to have that discussion now. We certainly don’t have consensus now. But I think that’s the germane discussion. C’ and versions thereof could be quite credible for us to adopt as spring gets going.

My last point, Mr. Chairman, is on Tom’s suggestion on structural imbalances. I would say that, while I’m sympathetic to the idea that the Division of Supervision and Regulation has a role to play, I’m uncomfortable overburdening supervision and regulation with that responsibility alone. The way I would describe the near- and medium-term challenges with exceptionally low, even negative, real rates is not so much that another bubble is on the doorstep, but that we likely are having, even in real time, some misallocation of capital, some misallocation of credit. I don’t

think supervisors and regulators are ideally situated to deal with it, and I don't think that the reference to structural imbalances really captures that essence, which strikes me as the bread crumbs to some longer-term asset bubble problems. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. When I look at the Greenbook and the Bluebook, I can't find anything that even gives me line of sight to the day when we need to tighten policy. And so for that reason, I favor alternative B. Nevertheless, I remember the conversations we had in December of 2008 about the potential for disruptions and dislocations caused by the near-zero interest rates. If there were a way to somehow get back to that floor of 1 percent and stay there for an extended period, I could be happy with that. But we just don't have any framework right now to communicate that.

I'm afraid that, with the number of levers we have at our disposal—the reserve-draining tools, asset sales, interest rates—and the timing and the calibration of each one of those levers, there are thousands of possible approaches. So it does seem to me pretty critical that we converge on a plan with the timing and calibration then to be debated inside this room and announced as part of our statement. And I would be in favor of including the kind of language in C' to indicate our consensus once we've actually reached a consensus. But it's difficult to communicate one that we don't have.

There's so much uncertainty gripping markets, business people, and consumers right now that I believe the contour of our policy may be less important than the resolve and the clarity with which we pursue it. And I think the quality of our communication is more important than the precision of our calculations. I'm not just talking about the nuances of the statement or what the phrase "extended period" means to a very sophisticated investor. In fact, I'm afraid we might

actually need a plan to communicate how we are going to change our communications.

[Laughter] I'm talking about stating as clearly as possible in our statement our expectations for the sequencing of exit tools, where we are in that sequencing, and how we will communicate if those expectations change. Then, I would hope that we could all dedicate ourselves between the statements to focus on explaining that strategy to the world, what we're doing, why we're doing it, and how we think it will work. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Let me say first that I noticed in Vice Chairman Dudley's handout in the lower left-hand corner there is a Federal Reserve Bank of New York Blackbook. Now, I have also noticed that the motor vehicles of the Federal Reserve Bank of New York are black, and this has led me to wonder what color the aircraft of the Federal Reserve Bank of New York are—[laughter]

Coming back to the monetary policy statements, I think the most important thing for us today is once again to remind ourselves that, by and large, markets and Fed watchers do not read our language; they read changes in our language. So, for me, every change in the language has to meet a fairly high hurdle rate, because it's going to be interpreted and likely over-interpreted. That leads me to question, in the context of my self-evident support for alternative B, what, if anything, do I want to change in communicating in March as opposed to January? And I think my answer is: Not much.

I am concerned that there's a bit of a drumbeat out there now, as if we're moving down a road towards tightening, a drumbeat which I think we have inadvertently amplified a bit, because we've been changing our statement so much—we've been closing the liquidity facilities, we've been doing a lot of things lately—all of which is, I think, the right thing to have done. But, to

switch metaphors, as I said last time, we can't get ourselves into a circumstance in which we have to throw a maiden over the cliff at every FOMC meeting. And I think this is a meeting where everybody should live. [Laughter] And that implies we can just stay calm and indicate that not much has changed, things are going as we anticipated, and we are not moving towards a tightening. I didn't hear any real arguments, other than a kind of intellectual predisposition for tightening, and I certainly didn't hear any data-driven arguments for tightening.

In terms of the language, the bracketed language, again, clearly seems a sensible sentence. But I just worry about how it would be interpreted, given that it would be a delta. So I'm not in favor of that. I'm certainly not in favor of including anything about a road map for exit, and I will say in advance that I'm not sure I'm going to be in favor of that next time around either, because of the drumbeat phenomenon, where people are going to think, "Okay, now they're just moving down that road." I have no problem with the additional sentence at the end of paragraph 3.

That brings me to "extended period," and it actually brings me to the concept of what Jim calls state-contingent and Charlie refers to as a reaction function. I'm genuinely sympathetic to the notion that we want to communicate that our actions are going to be dependent on what's happening in the economy going forward. I wish we were in a position to do that today by removing "extended period," but we are not. If you were to remove "extended period," you have raised interest rates. I don't think there are any two ways around that, and we've moved ourselves into a bit of a corner on this. I think some of us have kind of reinforced the assumption out in markets that the day we remove "extended period" the clock begins to tick, and the federal funds rate goes up two or three meetings thereafter.

So, like Betsy, I think the best outcome might be one in which the market understanding of what that language means changes. It changes from the sense that it's the early warning signal, with a date more or less certain of an interest rate rise, to an understanding that extended period meant that, beginning over a year ago, we were in a period in which things were obviously so bad that absent quite extraordinary and unanticipated changes in the foreseeable future, the monetary policy was not going to shift.

I think many of us are now in a mode where, although we're likely to have interest rates remaining low still for quite some time, we are more data-driven, and we are wanting to be more sensitive to data coming in. But that's not what the "extended period" language or its removal would communicate. So if people want to do something about that language, and want to do it with a credible assertion that it is not de facto an increase in interest rates, I think we're going to have to change the public perception of what it means. To do that, it's going to take a lot of cooperation and a lot of self-discipline among the seventeen members of the Open Market Committee. I hope we might be able to achieve that, but, to be perfectly honest, recent history is not particularly cause for optimism on those grounds. So I'm for B, without the brackets, everything else is okay, although I'd be happy to incorporate President Bullard's suggestion for the addition of the "reluctance to hire" in paragraph 1.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. I favor strongly alternative B. In my view, it's not time to change the "extended period" language or, in fact, to do other things, beyond what we've already done in terms of phasing out our liquidity facilities and ending our LSAP programs, to indicate that we're moving in any way closer to tightening monetary policy. First, there's no significant change in the growth outlook, and, on the inflation

side, there is more evidence of disinflation than there was earlier—inflation expectations have declined a bit. Second, if we were to do anything to move in the tightening direction, I think that would create credibility issues for us. We've said the discount rate change was not part of tightening. If we then were to change the language or do other things that indicated tightening, it would be contradicting what we had just said. Expectations are very much on the side of no change in the language. That's not a binding constraint, but if we contradict those expectations that we are ourselves tried to foster, there will be a credibility consequence for us that I think we would regret.

Regarding the language of B, I'm not a fan of the last sentence in paragraph 2. I don't think it says much, but I think the more important problem is that I'm not sure how it parses with the sentence that comes immediately before. Is price stability greater than, less than, or equal to subdued inflation? I'm just not sure how to fit those two sentences together in a meaningful way.

In terms of the C' paragraph, I think the problem is that we haven't agreed on the sequence or strategy. So how can we import this thing in to the statement that we haven't agreed on yet?

Regarding the financial imbalances issue that President Hoenig raised, I think this would be a good topic for a future FOMC meeting, so that we can discuss this whole issue of financial imbalances, asset bubbles, monetary policy, supervision, and regulation. How should we think about all of that? One reason to do this is that I think the view is changing, and I'm not sure where everybody on the Committee is, and it would be useful to reevaluate this. I think we clearly found out in this cycle that the consequences of waiting for asset bubbles to burst and cleaning up after the fact was very unfortunate—the tradeoffs were much graver than we

anticipated. So I think that would be a good topic for a future FOMC meeting. I know we don't have as many two-day meetings anymore, but I'd still like to put my two cents in for that.

CHAIRMAN BERNANKE. Okay. Thank you very much. Well, we have been, of course, continuing the exit from nonstandard policy, for example, closing facilities. We'll be ending MBS purchases at the end of this month. We raised the discount rate. We have been developing and explaining exit tools. Obviously, there's more to do, but clearly we have been working towards normalization. On the other hand, as people have pointed out, the outlook is one that is disappointing to all of us, I'm sure, and it's fairly evident that we need to continue to support the economy. Therefore, you won't be shocked to know that I would propose that we take alternative B, including the "extended period" language.

Let me talk about that language, because I'm a little puzzled by the way some people are characterizing it. There are two important things to say about this. Let me start off by saying that, whether it was a good idea or not initially, it's a sunk cost now. We have it. There is no way that I can see that we can somehow magically get rid of it without any consequences. So it is there, we have to manage it, and we have to deal with it.

Now, having said that, let me make two comments. One is that this is clearly not a fixed time commitment. It is a conditional statement, and we made a big point of putting in these conditionalities when we changed the language and added them. So if there were to be, for example, a very adverse movement in inflation expectations, then all bets are off. We have a conditional statement here, and that would allow us to move immediately, and that provides us with at least one safety valve. Also, I would just ask is that everybody emphasize in talking about this publicly that it is conditional and that we are tying our policy to the state of the economy. I think this will turn out to be important, because if, God willing, the next three

employment reports are 400,000, then the conditionality will be causing markets to say, “Well, they’ve got to change now.” And our change will be, in fact, a smooth change as we do it, because the markets will be reading from the data that policy needs to change, and, therefore, it will, in fact, be surprising if we don’t make language changes. So I think the conditionality is very important, and it will help us when the economy becomes clearly ready for tightened policy.

The second comment I want to make is that there’s this perception somehow that because of this language we now have to figure out six months in advance when we have to tighten policy. That’s not true. The day that we change this language we have tightened policy. So, if in April, for example, we were to change to C’, put in “some time,” and put in the exit tools, those would be a more powerful impact than a normal increase in the funds rate. We would actually begin to raise the funds rate, say in August, but the policy would clearly be much tighter from the moment we make that statement. So it’s not the case that we are stuck at a maximally accommodative situation until six months from the time we finally decide to move. In fact, the day that we make the statement it will respond.

I recognize, you know, that there are pros and cons to this kind of language. I do think it was helpful, at least for some time. But it doesn’t box us in, I don’t think, quite as seriously as some of the discussion has suggested. That being said, we need to be very careful with it, because we don’t really want to remove it until such time as we are ready essentially to tighten financial conditions.

To use that to think about the statement, several people talked about adding the alternative C language on exit. I think that’s not the right thing to do today. We haven’t had the discussion. We’re going to have it in April. I agree with President Lacker, by the way, that, when we do add it, if it’s appropriate, then having the extended period language to kind of

protect against the misinterpretation would probably be a good idea, but we'll discuss that when the time comes. Like Governor Tarullo, I'm not completely persuaded that the statement is the right place to put this. It's conceivable that speeches and minutes, and so on, might be a better place to provide a more extensive explanation, but that's something, also, that we should discuss in April as we come back to this.

I want to come back to financial conditions just one more time. I do realize—and President Hoenig has been very eloquent on this issue—that it's very difficult to know. We want to do our best. I think we should try to monitor it. It can't hurt to monitor and to try to identify problems. I realize that that's imperfect, but we should clearly make this one of the things that we continue to look at, and I would urge research staff, and so on, to increase their attention of this. But there are dangers both ways. An example I would raise would be the case of the Japanese. If you think that our policy has been static—of course, they had interest rates at zero for seven years—and on two occasions—I believe, this is just my recollection, I haven't checked it—they were concerned about the financial implications of their low interest rate policy. It was causing the money market not to operate, and they were concerned that it was supporting zombie lending, because, with zero interest rates, there was no trigger for bankruptcy. On two occasions they raised interest rates to 25 basis points, and both times it was considered ex post to have been a very serious error, and they retracted, because it had negative consequences for the economy.

We do have all of these concerns, and we do have to balance them off. There is a big picture. It's a very, very difficult situation. It's not because of our actions. I think it's just because it is inherently going to be a difficult set of tradeoffs that we have to face as we go forward.

With respect to the language, in terms of people who expressed an opinion, the majority were not in favor of adding the second sentence in paragraph 2. If anyone who didn't speak would like to support it, I'll give you a chance to do that in a minute. But I got a pretty strong sense of concern, not about the language per se, but about its interpretation in the context of our statement.

President Bullard suggested changing paragraph B1 by adding the "however" statement from A1. I think the reason that that was not done initially is because there are already two references to the labor market—"the labor market stabilizing" and "household spending is constrained by high unemployment." So that would be a third statement about the labor market in that one paragraph. I don't think it's an incorrect statement. If there are people who would like to make that change, I think that's fine, and I'll open the floor for that in a minute.

Again, I don't think I would like to add the sequencing language today, and I do think that, putting aside even the short-run implications, the "extended period" language is not as restrictive as some have suggested. I realize it is to some extent restrictive, but I think there are some ways to deal with that situation.

Let me stop here. If there's anyone who did not speak on the B2 language and would like to support it, we can hear that. And does anyone have any views on President Bullard's suggestion about replacing the "however" sentence in B1 with the "however" sentence in A1? So let me just raise those two questions. Would anyone like to comment? Brian?

MR. MADIGAN. Just one quick point, Mr. Chairman. I'd note that in January we did have three labor market references.

CHAIRMAN BERNANKE. Okay. Should we make the change, then? I guess that would amount to going back to the January language.

MR. MADIGAN. Or just picking up the final clause and adding that to the end of the existing sentence in B.

CHAIRMAN BERNANKE. The proposal is to replace “However, investment in nonresidential structures is declining, and housing starts have been flat at a depressed level,” with, “However, investment in nonresidential structures is still contracting, housing activity continues to be sluggish, and employers remain reluctant to add to payrolls.” Now, that actually changes some of the adjectives as well.

MR. KOHN. Why are we changing the housing starts?

MR. WARSH. Right. I think Brian’s suggestion is to just add the third clause.

CHAIRMAN BERNANKE. All right. So let’s add a third clause that employers remain reluctant to add to payrolls. Is that something that people are comfortable with? [No response.] I’m not getting a whole lot of reaction. Are you okay?

MS. PIANALTO. Yes.

CHAIRMAN BERNANKE. Everyone okay?

MR. LACKER. Yes.

CHAIRMAN BERNANKE. All right. So the changes in Statement B, paragraph 1, take out the “and” before “housing starts,” comma, and then add the clause “and employers remain reluctant to add to payrolls.” Would anyone else like to comment on my comments or on the statement? [No response.]

All right. Hearing none, does anyone want to hear that paragraph read again? [No response.] Okay. If not, perhaps we can vote on this.

MR. LUECKE. The vote will encompass alternative B, with the change read by the Chairman, as well as the Directive B, which is on the ninth page of the handout.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
President Bullard	Yes
Governor Duke	Yes
President Hoenig	No
Governor Kohn	Yes
President Pianalto	Yes
President Rosengren	Yes
Governor Tarullo	Yes
Governor Warsh	Yes

CHAIRMAN BERNANKE. Thank you. The next meeting is Tuesday and Wednesday, April 27th and 28th. We will, of course, be discussing more on the exit strategy as well as the policy decision.

Lunch is available. Meeting is adjourned. Thank you.

END OF MEETING