

**Meeting of the Federal Open Market Committee on  
January 27–28, 2009**

A joint meeting of the Federal Open Market Committee and Board of Governors of the Federal Reserve System was held in the offices of the Board of Governors in Washington, D.C., on Tuesday, January 27, 2009, at 1:30 p.m. and continued on Wednesday, January 28, 2009, at 9:00 a.m. Those present were the following:

Mr. Bernanke, Chairman  
Mr. Dudley, Vice Chairman  
Ms. Duke  
Mr. Evans  
Mr. Kohn  
Mr. Lacker  
Mr. Lockhart  
Mr. Warsh  
Ms. Yellen

Mr. Bullard, Ms. Cumming, Mr. Hoenig, Ms. Pianalto, and Mr. Rosengren, Alternate Members of the Federal Open Market Committee

Messrs. Fisher, Plosser, and Stern, Presidents of the Federal Reserve Banks of Dallas, Philadelphia, and Minneapolis, respectively

Mr. Madigan, Secretary and Economist  
Ms. Danker, Deputy Secretary  
Mr. Luecke, Assistant Secretary  
Mr. Skidmore, Assistant Secretary  
Ms. Smith, Assistant Secretary  
Mr. Alvarez, General Counsel  
Mr. Ashton,<sup>1</sup> Assistant General Counsel  
Mr. Sheets, Economist  
Mr. Stockton, Economist

Messrs. Altig, Clouse, Connors, Kamin, Slifman, Tracy, and Wilcox, Associate Economists

Ms. Mosser, Temporary Manager, System Open Market Account

Ms. Johnson,<sup>2</sup> Secretary of the Board, Office of the Secretary, Board of Governors

Mr. Frierson,<sup>2</sup> Deputy Secretary, Office of the Secretary, Board of Governors

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<sup>1</sup> Attended Wednesday's session only.

<sup>2</sup> Attended portion of the meeting that was a joint session of the Board and the FOMC.

Mr. Struckmeyer, Deputy Staff Director, Office of Staff Director for Management, Board of Governors

Ms. Bailey, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Mr. English, Deputy Director, Division of Monetary Affairs, Board of Governors

Mr. Blanchard, Assistant to the Board, Office of Board Members, Board of Governors

Messrs. Reifschneider and Wascher, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Levin, Associate Director, Division of Monetary Affairs, Board of Governors

Ms. Shanks,<sup>3</sup> Associate Secretary, Office of the Secretary, Board of Governors

Mr. Reeve, Deputy Associate Director, Division of International Finance, Board of Governors

Mr. Sichel, Deputy Associate Director, Division of Research and Statistics, Board of Governors

Mr. Meyer, Senior Adviser, Division of Monetary Affairs, Board of Governors

Mr. Oliner, Senior Adviser, Division of Research and Statistics, Board of Governors

Ms. Dynan, Assistant Director, Division of Research and Statistics, Board of Governors

Mr. Small, Project Manager, Division of Monetary Affairs, Board of Governors

Ms. Kusko, Senior Economist, Division of Research and Statistics, Board of Governors

Mr. Gust, Senior Economist, Division of International Finance, Board of Governors

Messrs. Driscoll and King, Economists, Division of Monetary Affairs, Board of Governors

Ms. Beattie,<sup>2</sup> Assistant to the Secretary, Office of the Secretary, Board of Governors

Ms. Low, Open Market Secretariat Specialist, Division of Monetary Affairs, Board of Governors

Ms. Green, First Vice President, Federal Reserve Bank of Richmond

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<sup>2</sup> Attended portion of the meeting that was a joint session of the Board and the FOMC.

<sup>3</sup> Attended portion of the meeting on Tuesday that was a joint session of the Board and the FOMC.

Messrs. Fuhrer, Rosenblum, and Sniderman, Executive Vice Presidents, Federal Reserve Banks of Boston, Dallas, and Cleveland, respectively

Messrs. Hilton and Krane, Mses. Mester and Perelmuter, Messrs. Rasche, Rudebusch, and Sellon, Senior Vice Presidents, Federal Reserve Banks of New York, Chicago, Philadelphia, New York, St. Louis, San Francisco, and Kansas City, respectively

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

Mr. Hetzel, Senior Economist, Federal Reserve Bank of Richmond

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**January 27, 2009—Afternoon Session**

CHAIRMAN BERNANKE. Good afternoon, everybody. Last night Michelle Smith and I attended the swearing in of Tim Geithner by Vice President Biden, with President Obama in attendance. So we now have a new Treasury Secretary. There will be a dinner tonight after the meeting at which we will honor Tim and say good-bye from this post as he goes into another. This is a new year and new things, and so this morning the Federal Reserve Bank of New York announced their new President—Bill Dudley. Congratulations, Bill. You made it all the way across the table. [Laughter, followed by applause] We welcome you and look forward to working with you in your new capacity.

MR. DUDLEY. Thank you.

CHAIRMAN BERNANKE. As you know, Governor Kroszner resigned in anticipation of the appointment of the new Governor, Dan Tarullo. But Dan has not yet cleared the Senate, so obviously he won't be attending the meeting, which leaves the Governors here as an embattled few, [laughter] and I think the lowest number of sitting Governors probably in a very long time.

MR. FISHER. Not in quality.

MR. LACKER. We will go easy on you. [Laughter]

CHAIRMAN BERNANKE. Thank you. Let me also welcome the new members cycling into the FOMC as voting members—Jeff Lacker, Charlie Evans, Dennis Lockhart, and Janet Yellen. The first part of the meeting is the annual organizational part for the FOMC, so we will be just in FOMC mode for the next few minutes. After we do that business, we will go into a joint Board–FOMC meeting, as earlier I discussed and we talked about this new way of

operating. We need to begin with the election of Committee officers. I need a motion for appointment of the Chairman.

MR. KOHN. Mr. Chairman, it is a pleasure and an honor to recommend Ben Bernanke to be Chairman of this Committee. I am not sure what sins you committed in an earlier life, but I sure hope you had fun. [Laughter]

MR. HOENIG. It's the first nomination I've heard like that. [Laughter]

CHAIRMAN BERNANKE. Is there a second?

MS. YELLEN. Second.

CHAIRMAN BERNANKE. Without objection. Thank you all very much.

MR. KOHN. You need to recognize me again.

CHAIRMAN BERNANKE. I need to recognize you again, Governor Kohn.

MR. KOHN. All right. It is a particular pleasure to nominate Bill Dudley as the Vice Chairman of this Committee. Welcome. I join you in welcoming him.

MR. DUDLEY. Thank you.

CHAIRMAN BERNANKE. Is there a second?

PARTICIPANT. Second.

CHAIRMAN BERNANKE. Without objection. Thank you. Now the staff officers of the FOMC. Debbie, would you please read the list?

MS. DANKER. For Secretary and Economist, Brian Madigan; Deputy Secretary, Debbie Danker; Assistant Secretaries, Matt Luecke, Dave Skidmore, and Michelle Smith; General Counsel, Scott Alvarez; Deputy General Counsel, Tom Baxter; Assistant General Counsel, Rich Ashton; Economists, Nathan Sheets and Dave Stockton; Associate Economists from the Board,

Jim Clouse, Tom Connors, Steve Kamin, Larry Slifman, and David Wilcox; and from the Banks, Dave Altig, Dan Sullivan, Joe Tracy, John Weinberg, and John Williams.

CHAIRMAN BERNANKE. Thank you. May I have a motion?

MR. KOHN. So move.

SEVERAL. Second.

CHAIRMAN BERNANKE. Without objection. Thank you. The next item on the agenda is the selection of a Federal Reserve Bank to execute transactions for the System Open Market Account. Sorry, am I on the wrong item here? Is that a different order? Okay. I'm sorry, I missed an item. Item 2 is a proposed revision to the program for security of FOMC information. You received a memo from Scott Alvarez and Debbie Danker. This appeared to be mostly minor procedural changes to the rules. The most substantive change was a rule affecting the access to confidential information of people who are not regular employees—i.e., consultants. Are there any questions for Scott or Debbie or any comments? A motion, please?

MR. KOHN. So move.

PARTICIPANT. Second.

CHAIRMAN BERNANKE. Without objection. Thank you. All right. Now we go on to item 3, selection of a Federal Reserve Bank to operate the SOMA. In a shocking development, the Federal Reserve Bank of New York has again expressed willingness to serve in this capacity. [Laughter] In this context, I would like to take note of a memo that was sent to the Committee by Louise Roseman and the Division of Reserve Bank Operations about their assessment of the controls and procedures related to the SOMA and the management of the various new facilities. They found that those controls were effective and that the SOMA activities complied with established directives, guidelines, and procedures. So I think the report we have is that New

York is doing a fine job and should continue to carry out this function. May I have a motion, please?

MR. KOHN. So move.

CHAIRMAN BERNANKE. Second. Comment? Without objection. Thank you. Item 4 is the selection of the manager of the System Open Market Account. We now have changing leadership in New York, and therefore we are not quite ready to select a permanent manager or to vote. Prior to the meeting, I appointed Trish Mosser as temporary manager of the Open Market Desk. We will come back to the Committee for a vote when a permanent position is established.

Okay. Now that Trish is here, she gets to do some work, I guess. We have three items—5, 6, and 7: a proposed revision to the authorization for domestic open market operations, a proposed revision to the authorization for foreign-currency operations, and a proposed treatment of the guidelines for the conduct of system open market operations in federal agency issues. Trish, could you talk about all three of those briefly, please?

MS. MOSSER. Certainly. I would be happy to. Thank you, Mr. Chairman. The proposed changes were discussed in a memo that went out to the Committee last week as well as in a memo that proposed a slight amendment to the domestic authorization that was circulated yesterday. Let me start with the foreign-currency area, for which there are three distinct parts to consider. With respect to the authorization for foreign-currency operations, we propose keeping the 2008 authorization mostly unchanged. We have one modest alteration. We propose adding four additional currencies to the list of permissible foreign exchange purchases and sales—the Australian dollar, the Brazilian real, the Korean won, and the New Zealand dollar. This is being done to reflect the foreign exchange swap agreements that were put in place in 2008 with the

central banks. On the foreign-currency directive, we are currently recommending no changes. Regarding the procedural instructions with respect to foreign-currency operations, we are proposing a slight modification to the introductory paragraph, adding the words “unless otherwise directed by the Committee,” to recognize explicitly that the instructions can be superseded by the Committee. I can pause now for a vote on the foreign side, or I can continue on and talk about the rest.

CHAIRMAN BERNANKE. Could you go through all three, please?

MS. MOSSER. Sure. I would be happy to. With respect to the authorization for domestic open market operations, we are proposing several amendments. The specific changes include, first, minor changes to consolidate language for repo and reverse repo operations into a single paragraph; second, the addition of a new paragraph 2 that codifies the New York Fed’s authority to transact in agency mortgage-backed securities for the SOMA portfolio using agents, such as asset managers and a custodial bank. This paragraph also allows the custodial agent to engage in repo transactions in order to manage the cash balances that are generated by agency MBS holdings. Third, we are adding language in the final paragraph, as suggested by a Reserve Bank President, that makes explicit the authority of the SOMA manager, following instructions from the Chairman, to take actions that “result in material changes in the composition and size of the assets in the System Open Market Account.” This authority, however, would be subject to the requirements, set out in the last sentence of the paragraph, that the Chairman consult with the Committee, if feasible. It would also make clear that “any such adjustment shall be made in the context of the Committee’s discussion and decision at its most recent meeting.” The intended effect of the proposed revisions is to place the governance of intermeeting changes by the

Chairman in the size and the composition of the SOMA portfolio on the same footing as changes in the degree of pressure on reserve positions and the fed funds rate.

Last, in light of the Federal Reserve's current program of purchases of agency debt and agency MBS, the staff recommends that the guidelines for agency debt and agency MBS purchases be temporarily suspended. The status of the guidelines will then be reviewed at next year's January FOMC meeting. I should note that there is a precedent for this. For example, paragraphs 3 through 6 of this document were temporarily suspended by the Committee in August 1999. At the time, the SOMA manager was concerned about the Desk's capacity to respond to any Y2K year-end effects and sought the authority to accept agency debt and agency MBS collateral.

CHAIRMAN BERNANKE. Thank you. I would like to comment on the implications of items 5 and 7, in particular for our GSE purchase program. In late November, as you know, I directed the Open Market Desk to begin a program of purchasing MBS and agency debt, based on the authorizations to do that and a consultation by phone that Don and I had with all the members of the FOMC. At the time, I felt comfortable with that decision. Since then, given how central the MBS purchase program has become to our policy and given the issues of governance that have been raised and we have all discussed, I now believe that I made a mistake in doing that—I should have consulted more closely and then taken a vote of the FOMC. So I want to pledge to you that I will not take any similar actions in the future without a formal consultation. Now, the effect of item 5 is essentially to make that part of the rules. Item 5 puts the substantial changes in the portfolio on the same footing as a change in the federal funds rate—i.e., the strong presumption is that this will be done in formal consultation with the Committee and that the Chairman retains the right to make intermeeting adjustments but only in

situations where consultation is not feasible. Again, I believe this is the right direction in which to go, and I support making that change.

On item 7, on the guidelines for purchases of agencies, I think this is a useful clarification. I also support this. But I would like to at least record that, in my own view, I don't think that our MBS purchase program is credit allocation in the sense that this guideline was intended to address—for several reasons. First, to my mind, credit allocation involves a preference for a certain class of borrowers relative to what normally functioning markets would throw up. In this case, the issue is not an attempt to distort allocations away from some efficient outcome; rather, it is our intention to try to make markets work better and to bring us closer to a normal market outcome. Second, I view the MBS purchase program as being really very close to monetary policy in spirit and intent in that we are trying to address broad issues of macroeconomic stability by stimulating an important component of aggregate demand. So we are using this particular tool not because we have a preference for housing but because we are trying to stimulate overall aggregate demand. Indeed, as you know, we are in fact looking at various types of credit in order to achieve that. I think this is similar to the normal use of monetary policy, which affects different sectors differently, not because we have a preference for one sector or another but because our tools allow us to address different components of aggregate demand with different force.

I am saying all of this because I do have this view, and I want to get it out on the table. Nevertheless, I think it is a clarification and useful for us to formally suspend these guidelines for the time being. That is my take. Let me open the floor for comments and questions on any of these three items. President Fisher.

MR. FISHER. First, Mr. Chairman, I think this may be the first time that a Wellesley woman has had responsibility for the Trading Desk. I am married to a Wellesley woman. I am used to being tutored by a Wellesley woman. [Laughter] So I have two questions that I would like to ask, just out of ignorance. The first is about the 65-day rule, particularly—and I may not understand this—but in paragraph 1(B) and then paragraph 4, the requirement to resell after 65 days or less, does that apply in the case of MBS or not?

MS. MOSSER. No.

MR. FISHER. Okay. Then the second: Is the limit on \$25 billion of an open position in all foreign currencies still current? Is that appropriate under current circumstances?

MS. MOSSER. It is. However, based on a previous vote, we have exempted the fluctuations in the value of foreign portfolios due to changes in the exchange rates. We do nothing at this point but passively invest both our yen and our euro portfolios. But given the size of exchange rate movements that we have, it would be possible at some point for us inadvertently to exceed a \$25 billion limit. So we are assuming that we fixed an exchange rate at a time when we were under \$25 billion, and we determined that, if we happen to go over inadvertently, it would not be a good idea then to go into the market and actively buy or sell foreign exchange to undo that. So other than that exemption, yes, we are abiding by that, and that is in force right now.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. First of all, I applaud the changes in item 5 to the domestic authorization. I will note here that it has been a triennial tradition for the Federal Reserve Bank of Richmond President to dissent on the foreign-currency-related directives. I am

going to break with tradition and support them. Our opposition in the past had to do with their use and the implications in foreign exchange operations that struck us as off-balance-sheet fiscal policy that was more properly done by the Treasury.

However, I would like to share a couple of comments on the Guidelines for the Conduct of System Operations in Federal Agency Issues. Let me just state at the outset that, in my view, they conflict with what we are doing now with agencies. “Credit allocation” is a term of art, and I think there is room for reasonable people, in good faith, to take different positions on what that means, as is the case with terms like “normal market functioning” as well. I think of the term in this context by comparing purchasing agency securities with some broader-based purchase of a similar quantity. I think we will have an opportunity to discuss this later in agenda item 8, but that thought experiment leads me to believe that these operations must, compared with a broader-based purchase of Treasuries, lower particular market sectors’ interest rates relative to others and leave others higher than they otherwise would be. I recognize that there are members—in fact, the broad majority here—who probably want to continue with the program and not suspend the guidelines. If I had my choice, I would not suspend the guidelines; I would suspend the program. So what I would like to do is respectfully register a negative vote on this. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Certainly. Other questions or comments? All right. If we are ready to vote, then, why don’t we do them separately, beginning first with the revision to the Authorization for Domestic Open Market Operations. Do we have a motion?

MR. KOHN. So move.

CHAIRMAN BERNANKE. Are there any objections? Any “no” votes? Everybody okay? I take that as unanimous. Second, the revision to the Authorization for Foreign Currency Operations. I need a motion.

MR. KOHN. So move.

CHAIRMAN BERNANKE. Thank you. Are there any objections? “No” votes? Hearing none. Third, the proposed treatment of the Guidelines for the Conduct of System Operations in Federal Agency Issues. Given what President Lacker said, why don’t we call the roll on this one.

MS. DANKER.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
Governor Duke	Yes
President Evans	Yes
Governor Kohn	Yes
President Lacker	No
President Lockhart	Yes
Governor Warsh	Yes
President Yellen	Yes

CHAIRMAN BERNANKE. Thank you. All right. That covers the organizational items. At this point I would like to convene a Board meeting joint with the FOMC. I need a motion to close the meeting.

MR. KOHN. So move.

CHAIRMAN BERNANKE. All right. Thank you. So now for the rest of today and tomorrow, we will be in joint session. Let’s turn now to our regular Desk reports, starting with Trish, and these reports will include not only our regular financial updates but also the broader discussion of balance sheet issues and so on that we talked about at our videoconference. Trish.

MS. MOSSER.<sup>1</sup> Thank you, Mr. Chairman. Spence and I will be referring to the financial conditions and facilities handout in front of you. Stress in financial markets has eased somewhat in recent weeks, but very unevenly. Markets directly supported by the Federal Reserve or government actions have seen declines in spreads, improved liquidity, and modest increases in trading and lending activity. But markets beyond the reach of Fed and government programs remain very strained. Moreover, the economic and financial downturn is very rapidly depleting banks' capital cushions.

Let me start with markets in which the Fed has intervened. Interbank lending spreads, shown in exhibit 1, have continued to narrow. The sharpest declines in LIBOR–OIS spreads actually occurred before year-end, and at present, one-week and one-month spreads are below their early September levels. The declines in spreads occurred at the same time that private lending among banks increased modestly—particularly at the one-week and one-month tenors. But almost no one is willing to take the risk of lending on an unsecured basis to a bank for more than a month. As a result, LIBOR spreads three months and beyond remain elevated. As Spence will discuss in more detail, declining spreads and increased private-sector lending have been reflected in reduced demand for term liquidity at our facilities. Similarly, in commercial paper markets, activity is up, and spreads are down. Rates on all types of A1-rated paper have declined—you can see this in the second exhibit—since the announcements of the various Fed facilities for commercial paper and money market funds. After year-end, even A2/P2 commercial paper spreads, which are not eligible for the CPFF, fell sharply.

In exhibit 3, consumer mortgage rates, as well as mortgage and agency spreads have declined notably since the announcement of the Fed purchase programs in November. In addition, secondary mortgage market spreads to Treasuries fell again during the first week of the purchase program in early January. Retail conforming mortgage rates have increased somewhat from very low levels in early January, moving up with long-term Treasury yields, but they remain well below the levels that prevailed before the Fed's purchase program was announced. Spence will be talking in more detail about the MBS purchase program in a few minutes.

The FDIC guarantee of financial debt has had an indirect effect on the corporate bond market. Corporate bond spreads, pictured in exhibit 4, widened throughout the fall, but since December these spreads—which do not include FDIC guaranteed debt—have declined. At the same time, the nonguaranteed portion of new issuance, seen in exhibit 5, has actually increased; in just the first two weeks of January, it accounted for more than half of new issuance. Apparently, guaranteed debt is not attractive to traditional corporate bond investors, so they have shifted into obligations of nonfinancial issuers. This has effectively increased demand for a small pool of corporate bond issuers, causing spreads to decline.

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<sup>1</sup> The materials used by Ms. Mosser and Mr. Hilton are appended to this transcript (appendix 1).

In contrast, markets without Fed or government backstop—such as consumer-asset-backed securities, commercial-mortgage-backed securities, and leveraged loans—have shown little or no improvement. Consumer ABS spreads (exhibit 6) have narrowed a bit since the passing of year-end but remain very elevated despite expectations for the beginning of the TALF program in late February or early March. Activity is at a standstill, and according to both the packagers and the buyers of securitized products, it is likely to remain so until the TALF is up and running and market participants have a sense that it will “work.”

CMBS and leveraged-loan prices, shown in the next exhibit, seemed to stabilize late last year but recently have fallen even further as the macroeconomic outlook has continued to worsen more sharply than expected. The outlook for nonagency mortgage securities continues to deteriorate. Recently the rating agencies projected even larger losses, which will cause formerly AAA super senior tranches to be downgraded to default-level ratings. All of this is, of course, more bad news for holders of these securities—including banks, insurers, and the GSEs—which are likely to face larger write-downs on mark-to-market assets and significantly larger impairment charges. Recent headlines about capital impairments at several of the Federal Home Loan Banks reflect these ongoing write-downs.

Despite the modest improvements in some markets, one should not underestimate how remarkably fragile financial markets are right now. The process of deleveraging, asset sales, and overall reduction in the risk profile of large financial institutions continues unabated—although in a somewhat more orderly way than a couple of months ago. Lack of liquidity is one symptom of this fragility. Although liquidity has improved since the beginning of the year, for most markets this improvement can be characterized as moving from “nonexistent” to “very poor.” Even core benchmark markets such as Treasuries and foreign exchange have exceptionally strained liquidity. Volumes are at multiyear lows. Bid-asked spreads in euro-dollar foreign exchange trading (exhibit 8) have more than doubled. In benchmark Treasury markets, the amount traders will buy or sell at a given price—the trade quote size shown in exhibit 9—is 0.1 of normal. Volatility has remained correspondingly high across nearly all markets, even with the improved conditions in the last few weeks. High volatility and poor liquidity can be self-reinforcing. They raise the cost of making and underwriting markets, which leads to less trading, higher spreads, less credit formation, and in general a lot less risk-taking.

The lack of liquidity across markets has led to some obvious unexploited profit opportunities. Exhibits 10 and 11 give a couple of examples. Exhibit 10 shows the average error between the yield on 10-year Treasury securities and the predicted yield for those securities based on the Board’s model. In normal market conditions, a host of market participants—trading desks, institutional investors, and hedge funds—trade constantly each day to exploit such large gaps and arbitrage them away. At present, a combination of balance sheet constraints and high volatility has caused a pullback in this activity, which, again, is self-reinforcing. Exhibit 11 has a second example of an unexploited profit opportunity—namely, the spread between yields on corporate

credit default swaps (CDS) and corporate bonds. Even in normal market conditions, the corporate CDS market is the more liquid (because it requires less balance sheet and is a more standardized product), but the difference amounts to a few basis points. Currently the spread between CDS and corporate bonds is more than 200 basis points for “liquid” investment-grade bonds and nearly 450 basis points for high yield.

Large losses and associated balance sheet constraints of banks and dealers are major reasons for the drying up of liquidity across markets. But also important is the lack of arbitrageurs—most notably hedge funds. Hedge fund losses in the last few months have been enormous. As exhibit 12 shows, 2008 was the worst year on record for the hedge fund industry, with losses of 20 to 40 percent for the group. Almost every type of hedge fund had double-digit losses (except short equity, and they were shut out of the market for some time). Losses were concentrated in the second half of the year, with about two-thirds of them in the last quarter. The poor performance provoked record redemptions, estimated to be at least \$150 billion and as much as \$400 billion. Of course, redemptions would have been much larger if many—particularly large—hedge funds had not shut their gates. In response, hedge funds have deleveraged very quickly, adding more downward pressure to asset prices and further undermining liquidity. In short, the capacity of the financial system to absorb and mitigate shocks is small—as small as it has been during this crisis.

At present, there are two closely linked risks to the fragile equilibrium in markets. One, of course, is the continued rapid deterioration in the macroeconomic outlook, both in the United States and globally. The second is the truly precarious financial condition of many of the largest financial institutions, particularly the global banks. Fourth-quarter bank earnings, which we are in the midst of receiving, were expected to be very bad, and in fact have been even worse for the major U.S. banks, as exhibit 13 shows. Earnings expectations for large European banks are even worse than for U.S. banks. If they disappoint to the same degree, the Q4 losses just for the banks in the table could easily be above \$70 billion. Adding in the hedge fund losses and the large expected losses at the GSEs and insurance companies, Q4 losses in the hundreds of billions seem likely.

The outlook for banks is hugely uncertain. Simply put, investors are worried about the size of the “hole” in banks’ balance sheets—that is, the size of the additional asset write-downs and reserving that will be necessary. If the hole is large, as anticipated, or worse, enormous, how will banks be able to fill it? As exhibit 14 shows, banks’ regulatory capital ratios look fairly robust, but for large banks, the ratio of tangible common equity to tangible assets—a metric that investors and rating agencies follow closely—looks much more precarious. Most important, losses come first out of common equity. Replacing those losses at current share prices implies potentially massive dilution for current shareholders. As a result, bank equity prices remain under severe pressure—as can be seen in exhibits 15, 16, and 17. To scale just how far bank equity prices have fallen, the market cap of all U.S. banks (including investment banks) is now about the same as the market cap of the soft drink industry.

The downward pressure on U.S. and European bank stocks is reinforced by uncertainty about the form and size of government intervention, particularly for the weakest players, which are viewed as closer to insolvency or government assistance. Even if some investors view banks as having significant long-term value, the possibility of government dilution or even nationalization discourages capital injections from the private sector. In contrast, government support of banks has capped their credit spreads, which you can see in exhibits 18, 19, and 20. Although credit tiering is evident in CDS spreads, the level of bank CDS for both U.S. and foreign banks has remained in the high end of the investment-grade range. Equity holders may expect to be wiped out, but debt holders clearly view the probability of losses as fairly low.

Market expectations that large-scale fiscal action will need to be taken in support of the economy and the financial system have had a significant effect on sovereign credit default swap spreads. The CDS spreads in exhibit 21 have risen because the expected fiscal cost has soared and because of uncertainty about the ultimate size of the bill—which will depend critically on global economic growth and on the magnitude of government assistance to financial institutions. Not surprisingly, CDS spreads for small countries with relatively large financial services sector—such as the United Kingdom, Spain, and Ireland—have increased proportionally the most. In recent weeks, movements in sovereign CDS spreads have mirrored movements in the countries' bank CDS spreads.

Accompanying the increase in sovereign CDS spreads has been a pronounced steepening of yield curves in the major economies. Exhibit 22 shows that in recent weeks Treasury yields in the United States are up at all maturities, but the increases in longer-term yields are particularly large—the 30-year is up about 40 basis points in the last week and a half or so. Part of this increase is likely due to short-run supply increases. In the next few weeks, \$150 billion of new Treasury coupon securities will be auctioned, and this week alone, we are auctioning \$200 billion of Treasury bills, notes, and bonds. Given illiquid market conditions, we shouldn't be surprised to see a rise in yields that is somewhat exaggerated. Nonetheless, with large and sustained fiscal deficits on the horizon, somewhat higher borrowing rates are not too surprising.

Finally, a few words about monetary policy expectations. The results of the Desk's latest dealer survey are shown in exhibit 23. Neither the dealers nor the futures markets expect any change in the target fed funds range in the near term. Dealer economists expect the current fed funds target range to be maintained well into 2010, reflecting widespread views that the combination of a deep recession and continued financial crisis will require easy monetary conditions for some time to come. Spence will now discuss the balance sheet and the use of facilities.

MR. HILTON. Thank you, Trish. Assets on the Federal Reserve's balance sheet, as of last Friday, totaled \$2.04 trillion, as shown in exhibit 24. The total has declined about \$250 billion from its recent peak on December 17, with most of that decline

coming since the year-end. I should note that most of the data in these charts are as of last Friday, and just within the last day there have been some fairly significant developments at some of the facilities. For example, at the CPFF, borrowing came down as much as \$50 billion yesterday and another \$21 billion just today, and we're learning today about large declines in swap facilities that will take effect on this Thursday. But before I get into some discussion of the individual facilities, let me give the general picture of what we've been seeing.

In general, demand at several of the special liquidity facilities has fallen to one degree or another in recent weeks, reflecting a relaxation of stressful conditions in some of the money markets, as suggested by the downward movement in money market yields, which is shown in exhibit 25. Some of the key term funding rates that are linked to several of our liquidity facilities are shown here. The direct support offered by various Federal Reserve programs, which since October have provided a large amount of term funding to banks, dealers, and other financial institutions—as well as the support offered by various government initiatives—has been behind much of the easing of conditions in these funding markets and also helps explain why the year-end passed fairly uneventfully. Lower rates in these financing markets in turn affect the economic incentives to use some of the facilities, and that is being reflected in the more recent experience. But other factors, such as an ongoing deleveraging of positions, have also contributed to falling usage in some cases.

Looking ahead, we anticipate that the net size of the balance sheet is likely to continue to fall for a time, but by how much is difficult to say. Even if reported market rates remain at levels that suggest cheaper funding could now be secured in the market, the liquidity behind those quotes is not always deep. Any net decline that we see in coming weeks will also likely prove to be temporary. The agency mortgage-backed security and agency debt purchase programs are really just getting under way, and the TALF program starts only later this winter. Moreover, as we have already experienced, the usage of many of these facilities could change quickly and substantially should conditions in financial markets again deteriorate.

Now I'll tell about some of the recent experiences at individual facilities in more detail. The term securities lending facility (TSLF), which is illustrated in exhibits 26 and 27, does not affect the size of our balance sheet but does alter the composition of assets that must be financed in the marketplace. TSLF loans outstanding are just around \$125 billion, and that's off a level of about \$200 billion in post-September. The auctions continue to be undersubscribed, and stop-out rates have regularly been at the minimum bid rates. Even over the year-end, only a small quantity of the options on loans sold under the TSLF options program were exercised. The downward trend in participation here is consistent with the narrowing in spreads between the term repo rates on the collateral that we accept and those on the Treasury securities that we lend. In rough order of magnitude, these spreads are now in line with the minimum bid rates at both the schedule 1 and the schedule 2 TSLF auctions. Dealers have also indicated that their holdings of some private securities that are eligible under schedule 2 continue to shrink and that money market funds and other

investors are now more willing to finance the agency debt and agency MBS that we accept on schedule 1. On that last observation, I'll note that today we let our last outstanding 28-day single-tranche repo mature, bringing to closure the initiative begun last March under which we arranged term repos against agency mortgage-backed securities as collateral. As recently as one month ago, the outstanding value of these operations was still at its peak of \$80 billion.

Net draws by foreign central banks under our swap agreements have come off a peak of \$586 billion in early December, and as of last Friday, they stand \$120 billion below that, as shown in exhibit 28. Declines in LIBOR and foreign exchange swap funding costs seem to be having a direct effect on participation levels. Most of the dollars made available by the participating foreign central banks are allocated at a rate of OIS plus 100 basis points, across one-week, one-month, and three-month tenors. Recently, OIS rates out to three months have been standing at about 20 basis points. There have been considerable reductions in draws at the shorter maturities, where LIBOR rates are now well below these allocation rates. Some of the decline in the shorter maturities has been offset by increases in draws at the three-month maturity, where three-month LIBOR rates are now very close to the OIS plus 100 basis point threshold. But just this morning we learned of an \$80 billion decline in net draws on some of the 84-day allotments, about \$50 billion at the ECB.

Term auction facility loans outstanding have come off their peak level of \$450 billion reached over the year-end and now total \$416 billion (exhibit 29). Most of this decline reflects the run-off of some of the special forward-settling operations arranged last November that spanned the year-end. Although propositions have been below the offered amounts since last October, when the auction sizes were raised to \$150 billion, the quantities borrowed remain large, as seen at the last several auctions, including yesterday's 84-day operation (exhibit 30). Improvement in the term interbank market has not so far translated into a significant decrease in participation at our TAF auctions. That may reflect the fact that the minimum bid rate is set equal to the interest rate paid on excess reserves, which is just 25 basis points, and that most banks have ample collateral available to secure such loans.

In line with the more general trends, borrowing at the PCF and the PDCF has been falling as well, as indicated in exhibit 31. PCF borrowing has been running around \$60 billion, and PDCF borrowing has been about \$30 billion.

The commercial paper funding facility passed a major milestone yesterday—its three-month anniversary. As shown in exhibit 32, much of the \$350 billion of commercial paper purchased through last Friday under the program was acquired in the first days of operations, beginning on October 27. Since then, increases have continued at a steady but much slower pace. The CPFF purchases only 90-day paper, and reflecting the heavy concentration of purchases at the outset exactly three months ago, \$88 billion matured yesterday. Of yesterday's maturing paper, only \$33 billion was replaced with new issuance at the CPFF; the remaining \$55 billion of the maturing total was not. Today another \$57 billion was maturing, of which about

\$20 billion to \$25 billion rolled off. This is pretty much what we would expect and what several of the participants in the program had indicated that they would likely do, given that CP rates in the market are now well below the CPFF loan rates. These rates are set at OIS plus 200 basis points for unsecured paper (100 basis points less for paper with a guarantee) and OIS plus 300 basis points for asset-backed CP. Issuers that did not roll over their maturing CP at the CPFF covered themselves in one of several ways. Some had pre-funded themselves in the CP market, were funding themselves elsewhere, or had reduced their overall funding need. Short-term funding markets were able to absorb the increased issuance with no apparent problem yesterday, although some backup in CP rates has been seen in recent days and a large amount of CP issued to the CPFF, about another \$130 billion, matures over the coming week or so.

The use of two facilities targeted at money market funds reflects the continuing improvement in the position of these funds. AMLF (ABCP money market mutual fund liquidity facility) loans continue to run off and are now just about \$15 billion (exhibit 33). Still there has been no borrowing at the MMIFF (money market investor funding facility). Inflows into prime money market funds and funds that invest in agency paper remain on a steady uptrend (exhibit 34).

There have been, however, some areas of growth in the assets on the balance sheet. Purchases of agency MBS, being made through our four investment managers, have continued at a fairly steady daily pace since these operations commenced on January 5 (exhibit 35). Cumulative commitments total \$58 billion (through January 23). This puts us on a pace to accumulate as much as \$500 billion by the end of the second quarter. Few of the purchases arranged so far have actually settled—so far about \$7 billion. This reflects the considerable delays between purchase and settlement that characterize this market. Of the contracted purchases so far, the vast majority have been for MBS for 30-year maturities, most with coupons ranging from 4.5 percent to 5.5 percent. The option-adjusted spread to Treasury rates narrowed almost 50 basis points after the announcement of the program in November. On balance, spreads have tightened somewhat further since purchases began in early January, but there have also been periods of modest backup amid strong selling pressure. Some of the selling pressure reportedly reflects a lack of clarity among market participants about the Fed's commitment to this market after the second quarter and the \$500 billion purchase objective has been met. Investors are worried that there may be a "cliff," with purchases ending abruptly at the end of the second quarter. This uncertainty could be lessened if, for example, the Committee stated that the program will continue beyond midyear as market conditions warrant. Conforming mortgage rates had been about 6 percent just before the program announcement. Shortly after we began our purchases, they were being posted by the same banks at rates as low as just under 5 percent, but they have more recently moved back up closer to 5.5 percent as originators struggle to process the wave of refinancings that has ensued.

Working with the investment managers, we have been confronting the challenges of both building up a large portfolio of agency MBS and trying to be supportive of smooth market function. This has provided some perspective about the potential value of our being sellers at times or of participating in the dollar-roll market, even as part of a strategy oriented toward building and maintaining a large portfolio. Likewise, the rise in mortgage applications, shown in exhibit 36, indicates that the supply of new agency MBS may increase sharply in coming months, which may be a factor that we need to consider in determining the appropriate pace for MBS purchases going forward.

Meanwhile, we have continued to purchase agency coupon securities, arranging about one operation per week. Since purchases began in early December, we have bought a total of \$23 billion (exhibit 37). So far at least, most of the narrowing in spreads of agency debt to Treasury securities realized since this initiative was announced in late November has been maintained. The purchases reportedly have contributed to the market's receptive response to the renewal of debt issuance by the agencies this month.

Trish noted the relative lack of improvement in those markets not directly targeted by any of the Federal Reserve's newer liquidity facilities. With that as background, let me provide a brief update on the term asset-backed securities loan facility (TALF). Just as a quick reminder, through the TALF, the Federal Reserve Bank of New York will lend as much as \$200 billion on a nonrecourse basis for up to three years against certain AAA-rated consumer ABS as collateral. The U.S. Treasury Department will provide \$20 billion of credit protection to the New York Fed in connection with the TALF, and further protection will be provided by haircuts on the loans. In recent weeks, staff members at the New York Fed, the Board, and the Treasury have made significant progress in finalizing several aspects of the program that are critical to its success. These include working out a host of operational details. The aim is to post the terms and conditions for the facility and to provide frequently asked questions by the end of this week, with the goal of being operational maybe even as soon as late February or early March.

I'll conclude my review of the financial assets on the balance sheet by noting that we last ran off a small portion of our remaining bill holdings last September and have arranged no outright operations in Treasury securities since then. We now hold around \$475 billion. We have no conventional repo agreements outstanding and have not arranged any such operations in the market since October. On the liability side of the balance sheet, the offset to net swings in total assets has mostly been in excess reserves, which are now in the neighborhood of \$800 billion—maybe now closer to \$700 billion. The Treasury had built up its balances held at the Fed under its supplementary financing program to a level of \$560 billion in November. Since then, it has been running down these balances because of debt ceiling considerations, and they now total \$175 billion. Brian will now continue our presentation.

MR. MADIGAN. Thank you. The staff is recommending that the Board and the FOMC act to extend the various liquidity facilities that are scheduled to expire on April 30. The PDCF, the TSLF, the AMLF, the CPFF, the MMIFF, and the temporary reciprocal foreign-currency arrangements are all currently scheduled to expire at the end of April. As Trish noted, conditions in some financial markets have improved somewhat in recent months, but those improvements have been limited. With the macroeconomic situation and the condition of financial institutions both deteriorating significantly, the recent improvements would seem to be attributable not to any strengthening of the fundamentals but rather to the range of actions taken by the Federal Reserve, the Treasury, the FDIC, the Congress, and foreign central banks and governments to stabilize the financial system as well as to the passage of year-end. As Spence has noted, even though the usage of some facilities has declined, amounts outstanding under some programs, such as the CPFF, remain substantial. Moreover, the level of usage is by no means an adequate metric for assessing the contributions of these programs to stabilizing markets. In many cases, market participants continue to look to the facilities as important backstops for their funding. In these circumstances, it would seem premature to consider terminating any of the existing liquidity facilities at this time.

Although the facilities do not expire for three months, the staff believes that the Board and the FOMC should act now to extend them. Absent an action to extend the programs, market participants and analysts are likely to speculate increasingly about the Federal Reserve's intentions for the facilities, which probably would add unhelpfully to market jitters. Also, lenders may increasingly become concerned that borrowers will not have access to backup funding facilities to repay currently extended loans when those credits mature in a few weeks and hence could become more chary about lending now.

The staff recommends that the Board and the FOMC extend the expiring facilities through October 30. This six-month extension from April 30 should be sufficient for now to assure market participants that the lending programs will be available for the period of time relevant for money market transactions. A case could be made for an even longer extension to take the programs over year-end—say through January 30, 2010—but you may be concerned that such a very long extension could signal a view that the financial crisis will be quite protracted. Also, for the programs that depend on the Board's section 13(3) authority, the requirement to find that unusual and exigent circumstances are present may be interpreted as making it difficult to extend these programs for a full year from now. If you do extend the facilities through October, as recommended, you may wish to plan informally on revisiting the expiration dates of these programs around the time of your June or August meeting so that you will be able to provide advance notice to market participants about whether or not the programs will be extended beyond October.

Some of the Federal Reserve's special programs—for example, the TAF—do not have a set expiration date and hence do not need to be extended. Also, the TALF is not set to expire until year-end. Thus, under the staff proposal to extend the other

expiring facilities through October 30, the TALF would not need to be extended at this time.

If the Board and the FOMC act at this meeting to extend the programs, the staff anticipates that the extensions would be announced to the public on Thursday at 10:00 a.m. Because the swap lines are among the items proposed for extension, part of the press release would be joint with our foreign central bank counterparties. Draft resolutions for consideration by the Board and the FOMC were included in the staff memo on this matter. Trish will now continue our presentation.

MS. MOSSER. Thank you. I am going to discuss long-term Treasury purchases by the SOMA for a few minutes. Last week, we circulated a memo outlining four options with respect to the long-term Treasury purchase program. To summarize: Option 1 is to retain purchases as an option but not to implement at this time; option 2 is to implement a pilot program; option 3 is to implement a large-scale purchase program; and option 4 is to purchase illiquid long-term Treasuries not with the explicit goal of bringing down longer-term yields but to improve Treasury market functioning. In addition, of course, there was an implicit option of announcing that a long-term Treasury purchase program was completely off the table. The staff recommended option 1—retain the program as an option that continues to be evaluated but don't implement at the current time.

The staff demurred from implementing such a program at this time for five reasons. First, for the further expansion of the Federal Reserve's balance sheet that would be needed, this program was viewed as likely to be less effective dollar for dollar in easing financial conditions than programs more directly linked to credit formation and to markets with more impaired liquidity. Second, it was unclear how big such a program would need to be to push down yields significantly from their current quite low levels. A large program might not do much at these levels. In that case, the program would be an especially inefficient use of balance sheet capacity. Third, such a program could potentially distort the relationship between Treasury and private-sector yields, affecting Treasury yields while having little effect on private rates. This could potentially undermine the value of Treasuries as a hedging vehicle. Fourth, such a program might even have adverse effects. In particular, some commentators would almost certainly argue that such purchases amounted simply to "monetizing the federal deficit." Although it is difficult to assess what effect such arguments would have on financial markets, worries on this score could conceivably lead to higher risk premiums, which could undermine the program's effectiveness. Fifth, the program would increase the interest rate risk inherent in the Federal Reserve's balance sheet because the long-term Treasuries would be funded by excess reserves—an overnight obligation. This means that, if short-term rates rose in the future, the Fed's net interest margin could be squeezed, potentially generating losses for taxpayers.

The staff does recommend, however, keeping the program alive as an option. After all, some of the decline in Treasury yields since early December may be due to

expectations of such a program in the future. If the Committee endorses the staff's recommendation, to retain it as an option but not implement it at this time, will long-term Treasury yields rise significantly—say more than 10 or 20 basis points? That does not seem likely. First, most market participants, even those that believe the FOMC will purchase long-term Treasuries eventually, do not anticipate that the Federal Reserve will necessarily begin purchases right away. They generally believe that, with Treasury yields as low as they are currently, there is no need to commence such a purchase program immediately. Second, market participants are placing a probability of only about 50 percent that such a program will be implemented at all. That's based on our latest primary dealer survey. If the program is kept on the shelf and remains a part of the tool kit and that is clearly communicated to the market via the FOMC statement, we would anticipate that this would generate at most only a modest backup in Treasury yields. Finally, the note distributed last week also contained some observations about some of the other options for moving ahead with purchases at this point and discussed some of the execution issues raised by the purchase program. I'll now turn to Nathan, who will continue our presentation.

MR. SHEETS. Thank you. Given ongoing stresses in the global financial system and the vulnerability of some key U.S. institutions to foreign-currency funding pressures, the staff has begun to assess the pros and cons of establishing temporary liquidity swap lines that would allow the Federal Reserve to lend euro, yen, sterling, and Swiss francs to U.S. institutions. These lines would be the mirror image of our existing swap lines and would allow the Federal Reserve to respond to eventualities ranging from a foreign-currency liquidity squeeze faced by a single U.S. bank all the way to a systemic shortage of foreign-currency funding among U.S. institutions. We raise this issue in today's meeting in the spirit of bringing to your attention an issue that we see emerging on the horizon. That said, we are still sorting through and evaluating a number of considerations that bear on this initiative, and we would very much appreciate your thoughts and guidance.

One major money center bank has recently shown particular vulnerability to foreign-currency funding pressure. This institution's huge presence in foreign markets is reliant on secured and unsecured foreign-currency funding. The vulnerability of its foreign deposit base and limited foreign-currency collateral has been apparent on a number of occasions over the past several months. Indeed, just last Monday, when U.S. markets were closed, our bank supervisors had significant concerns regarding the institution's ability to access sufficient foreign-currency funding. There were similar worries during a particularly stressful period in November. In each instance, the necessary financing was obtained, but the situation nevertheless remains fragile. While this one institution is a focus of concern at present, we cannot rule out scenarios in which other large U.S. institutions also run into trouble meeting their foreign-currency funding needs. There is a related risk that, once one U.S. institution showed pronounced vulnerability in this regard, other U.S. institutions might also then be viewed as vulnerable and that a broader foreign-currency liquidity crunch could develop.

These observations suggest that it would be prudent for the Federal Reserve to have the capacity to backstop the foreign-currency funding needs of U.S. institutions. Establishing temporary swap lines with foreign central banks strikes us as a straightforward way to achieve this objective. Such swap lines would ensure that the Federal Reserve could serve as a lender of last resort in foreign currencies for U.S. institutions. In particular, these lines would offer a reliable vehicle for providing foreign-currency funding to U.S. banks during times when U.S. markets were closed because of either time zone differences or U.S. holidays. Our expectation is that these new swap lines would be signed and implemented only if funding conditions clearly warranted. We do not recommend putting them in place on a precautionary basis, largely because we are not certain how the markets would receive the announcement of such facilities. Rather, the features of these lines could be negotiated with our central bank counterparties, with the draft agreements then put on the shelf to be approved and executed as needed.

To ensure that these lines could be rapidly implemented in deteriorating conditions, we recommend that the FOMC consider delegating authority to the Foreign Currency Subcommittee to conclude such arrangements. There might still be some announcement effect created by the reporting of such a vote in the FOMC minutes, but it would probably not be seen as signaling the same urgency as an announcement that the facilities themselves had been established. The authority granted to the subcommittee in this regard would be symmetric to that already delegated to the subcommittee to negotiate swap arrangements to allow major foreign central banks to lend dollars.

Three further issues are worth mentioning briefly. First, the legal structure of our existing swap lines requires the Federal Reserve to deposit the foreign currency it receives as part of the swap in an account at the foreign central bank. These new swap lines would be symmetric to our existing lines, but they would allow the Federal Reserve to lend the foreign currency to U.S. financial institutions and require foreign central banks to deposit the dollars they receive at the Federal Reserve. In principle, our existing swap arrangements could be amended to allow us to lend foreign currency. But we would prefer implementing these new swap lines through a separate and parallel set of agreements in order to reduce similarities to the old-style swap lines that were used to fund foreign exchange intervention in previous decades. Second, there are other means that could, in principle, be used to get foreign-currency funding to U.S. institutions under stress. One alternative would be striking agreements with foreign central banks for them to lend against high-quality dollar collateral. But central banks have been working on these procedures for some time, and although progress has been made, not enough of these arrangements are in place to address the existing vulnerabilities. In addition, foreign central banks may be hesitant to lend to a troubled U.S. institution during a period of stress, particularly on the basis of collateral held outside their jurisdictions. As another approach, we could simply require U.S. institutions to sell their dollar collateral and obtain foreign currency themselves in the foreign exchange spot or forward market. However, this might be difficult or disruptive during periods of market stress and would leave

institutions vulnerable during times when foreign markets are open and U.S. markets are closed. Third, the provision of foreign-currency denominated liquidity to the foreign branch of a U.S. depository institution would rely on the discount window authority of the Reserve Banks, and some technical issues would need to be worked through in implementing a lending arrangement along these lines.

The staff is not proposing that you vote today to establish these new swap arrangements, but we are highlighting this as an issue meriting your attention. We also note that, if stresses in foreign-currency funding conditions persist, we may be back to you—perhaps very soon (and perhaps even in the middle of the night)—[laughter] with a request to move forward with these arrangements and the corresponding delegation to the subcommittee. Thank you. That concludes our presentation, and we are very happy to take your questions.

CHAIRMAN BERNANKE. Thank you. That was very informative and a lot to digest as well. Let me just remind the Committee that the only action item in the list, other than the ratification of domestic open market operations, is the proposal to extend the programs. The discussions of Treasury purchases and foreign-currency swaps are just for information at this point. We will have an opportunity in a few minutes to have a discussion on these issues, but before we do that, let me first see if there are any questions for our colleagues. Any questions for Trish or her colleagues? President Rosengren.

MR. ROSENGREN. So the TALF is scheduled to end in January, but all the other programs with this vote will be scheduled to end in October, is that right?

MR. MADIGAN. The TALF—December 31.

MR. ROSENGREN. Year-end?

MR. MADIGAN. Yes, and for the other ones that have a maturity date, the extension would be through October 30.

MR. ROSENGREN. It seems a little peculiar to have different dates. It seems particularly peculiar to have it end at the end of the year when that is likely to be a problematic time, regardless of whether things settle down. So, actually, I would have a preference to go to

January. But if we are not going to go to January, I do think that we should discuss it at the June meeting, not the August meeting, because I know that there has been some uncertainty in the markets about which programs would be extended. I don't think the speculation has been particularly healthy, so it is better to have a little more clarity. It might be worthwhile, if we are going to have it end in October, actually to include that it would be discussed in June so that people know that it will come up again.

CHAIRMAN BERNANKE. There is a tradeoff between giving people the assurance of a long period, and flexibility—not committing our balance sheet for an extended period. But I agree with you that, if we do this, we ought to revisit it earlier rather than close to the date.

MR. ROSENGREN. Yes. The August meeting seems a little late, given that there is likely to be speculation about year-end by August.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. Is it too early to ask for a few more details on the swap description that you were talking about? In the following sense—there was nothing distributed on this, right?

MR. SHEETS. Correct.

MR. EVANS. Okay. Because the question that I asked before about the swaps—and I had been comforted by the answer—is what our loss exposure is when we provide swaps to foreign central banks. They stand behind them, so that is about as good as we have. This is sounding a little different. If I understood what you were talking about, it is that we will be using them as an agent to provide funding to our troubled institutions, and some discussion about what guarantees and whatnot would be very helpful.

MR. SHEETS. The risk profile would be different for exactly the reason you suggest. A lot of the analysis on this particular proposal has been done just over the past few days, and that is one reason that we are not presenting it with a fuller description and more detail. But we certainly intend to continue to do that work, and as we make progress on some of these issues, we certainly plan to circulate a memo to the Committee describing some of the other issues.

MR. EVANS. Is it too early to have some idea what the order of magnitude of the funding requirements might look like?

MR. SHEETS. We haven't thought systematically about that issue. I mean, I could guess—

MR. EVANS. I wouldn't hold you to it, if you are willing to.

MR. SHEETS. But I think it would probably be better not to guess. Maybe Trish wants to guess. [Laughter]

MR. EVANS. I have noticed that the astute responders don't go for that line. [Laughter]

MS. MOSSER. Potentially fairly large—particularly if we are considering more than one large institution. In the scenario that Nathan laid out, which is the risk that we are considering, we think it is somewhat less likely that we would use these lines for the sort of operations that most of our foreign central bank counterparties are using to distribute dollars, which are operations and tenders that are open to all. We don't see that kind of need across a broad group of institutions and a broad group of banks around the United States. But there is certainly a subset of institutions, many of them quite large with very sizable foreign exchange funding, that fund themselves in Asia, Europe, and South America. Should those institutions end up being in worse financial shape, many of them actually have quite substantial collateral with us at the discount windows in the various Districts. But they would not need funding in dollars. They

would want to come to us instead and, for example, take out a discount loan—they could do it through other mechanisms—in a foreign currency rather than in dollars. The way that we would then finance it—given the relatively modest size of our foreign exchange reserves and the fact that the reserves are only in two currencies—would be to establish swap lines and fund them that way.

MR. EVANS. Okay. Thank you. That is very helpful.

CHAIRMAN BERNANKE. Vice Chairman, did you have an intervention?

VICE CHAIRMAN DUDLEY. Yes, just a very brief one to reinforce Nathan's point. We began discussions with the foreign central banks literally last week on this issue, and it was really begun because of the vulnerability that we felt on Martin Luther King's Birthday with our being closed and what would happen in that environment—how we could get liquidity to a U.S. bank that might have difficulties abroad. In terms of President Evans's questions about risk, this is really no different from our lending domestically to a domestic institution against collateral that we hold, except that we are basically using that collateral to fund the foreign exchange swap. So you can just think of it as equivalent to our lending to a domestic institution against the collateral they hold here in the United States.

CHAIRMAN BERNANKE. President Lacker, do you have an intervention?

MR. LACKER. You may have mentioned this, but who bears the foreign exchange risk in this?

MR. SHEETS. Maybe Vice Chairman Dudley and Trish have some thoughts on this.

MS. MOSSER. The way that we structure the foreign exchange swaps now is at a fixed exchange rate for both the front and the back leg, so that we don't have—

MR. LACKER. Right. So the other central bank bears it. So in this case, who would bear it?

MS. MOSSER. We would basically get back the dollars that we gave to them.

MR. LACKER. So we would bear the foreign exchange risk of the swap.

VICE CHAIRMAN DUDLEY. Details have not been addressed.

MR. SHEETS. There is a new dimension to think through—that is, who is bearing the foreign exchange risk vis-à-vis our central bank counterparty? And I don't think the terms there are going to be different. But then, when we go on to lend that foreign exchange to our commercial bank, there is a new dimension in thinking about foreign exchange risk.

MR. LOCKHART. That is a credit risk. That is not a foreign exchange risk.

MR. SHEETS. Well, it depends on which currency it is being booked in.

MR. LACKER. Wait, wait, wait. When you say it would be the same, it depends on whose point of view it is. The way Trish described it, we would bear the foreign exchange risk vis-à-vis the other central banks. Is that what you are saying?

MR. SHEETS. We are still thinking through that point.

MS. MOSSER. That is the part that is still being worked out. I am sorry—I misunderstood your question. We would bear, for example, through the discount window the risk of lending in yen and euro. Obviously, the collateral would be in dollars, and the foreign exchange risk would be—

MR. LACKER. Obviously, it is a lending risk. But before you do the loan, you swap with the foreign central bank. The way we do it now, the foreign central bank bears the currency risk, and in this one, we would.

MR. SHEETS. That's right. The way that works is, when we do that swap, we agree to unwind that swap at the exchange rate that prevailed at the time the swap was made. My preference in these negotiations is that, for these other swaps, we would do exactly the same thing vis-à-vis our foreign central bank counterparties.

MR. LACKER. To make them bear it?

MR. SHEETS. So they would still be bearing the foreign exchange risk. But in some sense we are promising that we get back the dollars we put in and they get back the foreign currency they put in. Right?

VICE CHAIRMAN DUDLEY. It is risk in that the currency is going to be worth less in dollars, but it is not risk in that you are getting back anything different than what you actually extended.

MR. SHEETS. Yes, that is right. In some sense, the Federal Reserve and they don't really care because they get back their currency and we get back our currency.

CHAIRMAN BERNANKE. There's an element of hedging here. President Fisher.

MR. FISHER. Well, actually, President Evans asked one of the questions that I was going to ask. Mine is a lot more generic, of Trish: To what degree do you sense that this credit default swap market is helping or hindering efficient markets and the equilibration of these distortions that we are seeing? Because there is some debate about this. I am talking about the speculative CDS positions.

MS. MOSSER. My view is that the credit default swap market has taken a lot of abuse for many things that would have happened even if it didn't exist.

MR. FISHER. So is it exacerbating?

MS. MOSSER. There have been a few times, certainly, that the peculiarities of the structure of the CDS market have led to more-volatile changes in spreads from one day to the next. But, quite honestly, it is a more liquid market. It probably gives you a truer price signal for the vast majority of credits out there, particularly large corporations, both financial and nonfinancial, than the corporate bond market does. When market liquidity goes away and it is harder to discern fundamental movements in asset prices, the less liquid market—and that is definitely corporate bonds—gives you the worst signal, and the CDS market probably gives you a better signal. Given the size of the CDS market, the rapidity with which it grew, the size to which it grew, and the fact that it is a little the dog that didn't bark and that there were certainly problems with the Lehman bankruptcy and a lot of technical issues, my view is that, frankly, it has been one of the markets that has continued to function—not wonderfully, but it still functions—and some liquidity is still there. Others may have a slightly different view, but that has been our experience.

MR. FISHER. That actually is the basis of my question. The point is whether we are getting good information from the CDS spreads, not a distorted version.

MS. MOSSER. I think they are probably less distorted—certainly in the case of corporates.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. First, since we are beginning the year, a broad appeal to speak to the furthest person in the room rather than to the person next to you.

[Laughter] It is very hard to follow many of these answers because I can't hear you down at this

end of the table, and I can imagine our colleagues here in the back of the room have no idea what is being discussed.

A couple of questions. It is probably a little premature to be thinking in this detail, but the institution that Nathan described I think we can all guess because of their foreign operations. They have funding needs in many, many currencies. Charlie, can you hear me at the end of the table? [Laughter]

MR. EVANS. I can. I was just trying to guess whom you were talking about.

MR. LOCKHART. Would we be using hard currency swap facilities to deal with softer currency funding problems when the crisis could begin in a minor currency? Is there that kind of linkage conceivably in how we structure and address this? That is the first question. The second question is, If this is an institution for which we have already had an intervention with a significant and very public amount of money involved, would we be offsetting this against that intervention facility, or is this incremental?

MR. SHEETS. On the first question, you are absolutely correct that this particular institution does have significant foreign-currency funding needs in some of the minor Asian currencies, for example, and has experienced stresses in those. I think that is an issue that we would need to ponder as to how to proceed on, and it was in the back of my mind in the sense that in our presentation we emphasized euro, yen, sterling, and Swiss francs. Suppose it is a minor Asian currency. Would we want to think about swap lines with some minor central bank to allow them to have that currency, or is getting them yen enough? Given market differences, time zones, and everything else, is getting them yen going to be sufficient to be able to provide the funding in some of the other Asian currencies? Those are issues that we are going to have to

spend a fair amount of time thinking hard about. I think maybe the second question is more for New York.

MS. MOSSER. I don't think we are nearly far enough along in this process, nor have we spoken in sufficient detail to either our bank supervisory or our discount window colleagues to make that judgment, frankly. At this point, the fact that I know is that quite a significant amount of collateral is posted within the Federal Reserve System at the discount window that is not currently being borrowed against. That is, honestly, probably as much as we can say at this stage. But, clearly, that would be a set of conversations we would have to have.

CHAIRMAN BERNANKE. Other questions? If not, we can go to a Committee discussion. We are going to have two more go-rounds in which everybody gets to state their views, so I was hoping that instead of a go-round we could have a more interactive, unstructured discussion of the issues that have been raised by the presentations. If you allow me, I would like to start by just posing you on a few items and making a few comments, and then we will open the floor for discussion.

I think it is important to understand that the calls on our balance sheet and our programs will be very much conditioned by the decisions being made in the Administration and the Congress about the kinds of support they are intending to provide and the approach they are going to take. As you know, Tim Geithner, who was sworn in just yesterday, is overseeing the work with the remainder of the TARP and perhaps an expansion of the TARP, depending on how things go. Staff members at the Board and the Federal Reserve Banks have been working very extensively on programs with our fellow bank regulators and have provided a great deal of support and information to the Treasury as they have been trying to think about how to go about stabilizing the banking system.

It seems clear at this point that any solution they are going to come up with is going to have at least two components. One would be the removal of bad assets in some way from the balance sheets of the banks. For that purpose, there has been discussion, as you know, of an aggregator bank, ring-fencing, or some kind of insurance program that would allow banks to purchase insurance against tail risk for their assets. The second component that is almost certain to be involved would be capital. But there are a lot of open issues: What is the appropriate instrument, what control rights would be associated with it, should the capital be put in just in time or should it be put in preemptively to make sure that there is coverage for subsequent losses, and what would be the ultimate cost? In particular, will the remaining monies in the TARP be sufficient? I think the smart money is betting no. In addition, the Treasury is working on the foreclosure programs, which will probably involve up to \$50 billion to \$100 billion of the TARP, and is looking to support credit markets. I assume that the TALF would be part of that program.

I have had a few very preliminary discussions with Tim Geithner about the consequences for these programs, for the Federal Reserve, and tried to talk about our priorities and our concerns. I think it is a bit strong to say that I am looking for a new Fed–Treasury accord here, but maybe not that strong. This is a good opportunity, the next couple of months, as planning is done and as the Administration goes to the Congress and makes requests, to try to clarify as much as possible what role the Fed is expected to play. In particular, I think we should be as allergic as possible to (a) long-term commitments of our balance sheet because of the difficulty of unwinding and (b) credit risk. Those are the two things that concern us. For example, if we do an aggregator bank, it would be important to make sure that it is financed not by long-term Federal Reserve liquidity but by, as one option, private financing guaranteed by the FDIC, although I think the Fed should be open to doing short-term collateralized lending, as it would

for any bank, as part of that process. Likewise, if ring-fencing becomes part of the plan, I would defend our actions with respect to two large banks, where we have taken tail risk positions as being necessary for financial stability. But going forward, I hope that we will find solutions that don't involve that kind of glitchy approach.

I think that the top priority is to try to get the bank resolution program done in a way that is consistent with good practices on our part. I have a couple of other requests for Tim, and I should just emphasize this is very, very preliminary. I have no commitments. Ideally, one would be that, if the government at some point does develop a resolution trust company or an aggregator bank, they should consider, for example, taking off our balance sheet some of the assets that we have acquired at our Maiden Lane facilities. Second, an important issue for us would be the management of the exit strategy. The Treasury has already requested from us some memorandums on the supplementary financing bills and on the Fed bills idea, and I believe that they will give serious consideration as to how they can assist us in the exit.

The lowest priority for me at this point would be the TALF-like approach, for two reasons at least. One is that it is an effective approach that will not happen unless the Fed is involved, because of the TARP scoring method—the fact that the TARP is scored in terms of the full amount that is lent or purchased rather than in terms of some measure of credit risk. Therefore, it is extremely unlikely that the Congress would give any kind of authorization that would allow for the TALF to continue, absent some kind of Fed cooperation. I would also argue that the TALF is much closer to conventional central bank activity than some of the other things that we are concerned about—i.e., it is given the capital support from the Treasury, it is protected from credit risk, and it is mostly short-term lending. For those reasons, I would put that as lowest priority. Obviously, I think that, as much as possible, we need to cooperate and work

with the Treasury to try to get the banking system and the economy stabilized. But this is an opportunity, and I will do what I can to try to get assurances from the Treasury about how things will evolve in the future.

In my view, the main constraint will be certainly not the goodwill of the Treasury or of the Administration but rather the constraints that they face in dealing with the Congress. As you know, the TARP and the bank stabilization programs are extremely unpopular. It is going to take a certain amount of political capital to get additional resources. Therefore, they are going to have to dole out their political capital in a quite sparing way. But I will continue to work on these issues, and I understand that they are important to the Committee.

I support the extension of the programs to October. We did discuss going over year-end. The tradeoff is the commitment to a longer outstanding funding, but I do think that we ought to revisit that in a timely way. On Treasury purchases, I would like to reiterate what Trish said. I think that there is good reason to keep this on the table, that it is not really a good idea to throw away this option at this point, but that it is probably not an efficient way to use those balance sheet capacities at this juncture. So I would agree with the recommendation of the staff on that, and I think part of our discussion certainly tomorrow in the policy round would be exactly how to express that in our statement language.

Just a couple of other comments. First, one of the issues, which you can see in the press commentary—“murky new territory,” “unknown, uncharted waters,” et cetera, et cetera—is that, clearly, for us to be successful with our current set of policies, it is important for us to be as open and transparent as possible and to provide as much information as possible. I want you to know that we have here at the Board, in cooperation with the Reserve Banks, a new transparency initiative which has at least two parts, maybe three. One is that Governor Kohn has consented to

head a committee that is going to review all of the information associated with our balance sheet, the programs, collateral, and all of those things and ask the question, for information that we do not release, whether we have a good, strong policy justification for not releasing it. If not, then we should be as forthcoming as possible about providing the public with information about the collateral, about the programs, and so on. So that is ongoing. I will have a hearing on February 10, when I will discuss these issues in front of Barney Frank's committee, and I have a speech at the National Press Club the week after that, when I will address the press and let them ask questions about these issues.

The other part of the transparency initiative is to try to make our programs more accessible to the general public, including the media, congressional staffers, and the like. We have an effort under way to develop a website, essentially, that will link to all of the information that we have and that will provide overall discussion and education about our various programs, which we hope to get going within a month at the latest. I think the educational aspect of this is very important in trying to get people more comfortable with the regime that we are operating in, given the constraint on the federal funds rate.

Finally, going along with our discussion about extending the various facilities, I should tell you that, using the authority vested in me, I extended the TAF—the auction facility—until the end of the quarter at the current level of \$150 billion. So that particular item goes to the end of March. But that is an authority, as I understand it, that we can use here at the Board. Okay. I have taken a good bit of time. Let me stop and turn to President Lacker for comment or discussion on the issues of the balance sheet.

MR. LACKER. Thank you. I'm happy to kick off our first go-round in this format. Obviously, we established a new interest rate regime at the last meeting and have some knotty

issues—a lot of challenges—ahead of us. I want to borrow a bit of time from my remarks later in the meeting and use them here, if I could. I respect your appeal for disorganized interaction, but I have organized my thoughts. [Laughter] I am happy to give a disorganized version, if you would like, but—

PARTICIPANT. How do we tell? [Laughter]

MR. LACKER. Good question. There is an observational equivalence here, I am sure. First, let me applaud the discussions you have initiated with the Treasury. I want to comment a bit on that. I think they are very important right now. What I would like to talk a bit about, first, is just the two schools of thought that we have been contending with here about how to use our tools—how we should conduct policy in this new framework. One, obviously, is using our balance sheet to influence the size of our monetary liabilities in an attempt to influence the growth of the public’s nominal expenditures, and the other is to use our balance sheet to intervene in market segments that seem particularly strained and where consequences for the broader economy appear to be particularly significant.

I think that the term asset-backed securities loan facility, which is our next program to be implemented, is illuminating here and raises significant questions about these two schools of thought. So I want to explore it for just a couple of minutes. It is aimed at improving conditions in the market for securitizations of credit card, auto, and small business loans, with the hope of improving the securitization markets’ functioning and thus increasing the flow of credit to consumers and small businesses. Quarterly interest rates on such securitizations have been exorbitantly high of late—I think Ms. Mosser’s presentation had them up about 500 to 600 basis points over LIBOR—and new issuance fell to virtually zero in the last quarter, as I understand it. Expected loss rates on the underlying loan portfolios have risen significantly since September,

but there are some who argue that the spreads on AAA tranches are far too high to be explained by increasing loss rates alone. Another relevant factor is that there has been a widespread pullback from structured finance. Investors have lost confidence in some of the inputs into the securitization process—rating agency assessments would be an obvious one—so investors are not willing to pay nearly as much now for consumer loan securitizations as they once were. In addition, one hears other reports that some investors in this class of securitization are more reluctant to hold these securities now because of mark-to-market volatility, which for this class of investors passes through their income statement, in contrast with some of the issuers who, if they hold the same securitizations on their own balance sheet, don't have to run mark-to-market changes through their balance sheets. So there is a certain comparative advantage in accounting treatment to the issuers holding these.

This leads me to the next thing. I think the other side of these securitization markets bears a careful look. We happen to have two of the largest credit card ABS issuers in our District. Both of these firms have simply declined to issue securitizations because it is cheaper to use their balance sheet. Their funding costs—there was one issue,  $2\frac{1}{4}$  percent, year and a half money—some of them quote  $1\frac{1}{2}$  percent for brokered deposits. In comparison with that, the spreads in the secondary market that Ms. Mosser quoted are something like 5 or 6 percent. So there is no way in which it makes sense for them to actually do the securitization. Instead, they just hold it on the balance sheet. In essence, their demand for securitization funding is very elastic because the closest substitute is not much more costly. As a result, the increase in funding costs hasn't been nearly as much for them as the increase in these spreads would indicate.

Now, you might think that the pressure this puts on these banks' balance sheets would lead them to cut back credit extension at the margin as a result of this. But both of these institutions report quite clearly and emphatically that their lending terms—that is to say, the decision algorithms for what to grant an individual consumer—have not changed as a result of this. They are still chasing consumers who are creditworthy. These are getting harder to find because consumers are generally riskier now. But these banks' policies have not changed because of what has happened in the securitization markets. This suggests that the disruption in securitization markets has had little effect on consumer credit availability. This is consistent with evidence that I found in the back of the Greenbook that interest rates on credit cards and auto loans have fallen, not risen, over the past several months despite the increase in the ABS spreads, which would make you think that they would be rising.

More broadly, securitization is a mechanism for reallocating risk. But more fundamentally, it is a mechanism for arbitraging capital requirements and getting a more favorable regulatory treatment, capital treatment, by moving things off balance sheets. So the question is, Do we have a policy interest in further subsidizing regulatory capital arbitrage? I don't think the answer is "yes," and I don't think we have a broader interest in subsidizing securitization markets compared with on-balance-sheet lending. Moreover, at the end of the year, banks are going to have to consolidate these securitizations on their balance sheets anyway, under FAS 140. So I am led to wonder: Do we have a policy interest in reversing the steps they have taken already to adjust to this new accounting regime? Again, I don't think the answer is "yes." So the bottom line about the TALF is that I don't think it addresses a demonstrable market failure. As I will speak about in a minute, I think doing this would channel credit away

from other worthy borrowers. I think it exacerbates moral hazard, and I think it sets bad fiscal precedence.

If we are going to expand our balance sheet—and I do think it makes sense to do so right now—I believe we should do so in a way that is as neutral as possible across market segments. I think the best way to do this is to purchase U.S. Treasuries. What effect would this have? Well, the natural benchmark, the simplest model you would write down—and there are more-complicated models in which something else would happen—is one in which the presumption would be that risky financial assets are priced off risk-free Treasuries based on the standard risk considerations, the standard asset-pricing considerations. I don't see any particular reason to believe that those spreads would move one way or another in response to a change in medium- and long-term Treasury yields. The staff memo on purchasing long-term securities gives a number of reasons that they recommend against the idea, and frankly, I don't find them very compelling because most of them apply with equal force to a targeted credit program like the TALF. The risk of increasing inflation by monetizing debt applies to both public and private debt, I think. The risk of taxpayer loss would seem to be even more of an issue if we take on credit risk in addition to interest rate risk.

We heard earlier about our purchases of 30-year mortgage-backed securities and agency bonds. The deleterious effects of distorting relationships among various interest rates would seem to be more of a problem for targeted credit programs than buying U.S. Treasuries. On this last point, the thought experiment I carry around in my head about this is to compare a targeted credit program such as TALF with a same dollar amount purchase of U.S. Treasuries. The effect on the monetary base is going to be the same, by assumption. But buying Treasuries is likely to lower rates across the board in the private sector, whereas the credit program is just going to

lower the target rates, leaving rates in non-targeted market segments higher than they would be if we bought Treasuries. In other words, choosing a targeted credit program over buying Treasuries is like deciding to lower rates for borrowers in the targeted segment by drawing away funds from other sectors and raising rates in other sectors, compared with a program of buying a risk-free security like Treasuries. I don't see a compelling reason to raise some borrowers' interest rates in order to lower some other borrowers' interest rates. In particular, it is hard for me to see how we know this would have a positive effect on aggregate demand, on net.

Now, obviously, we have a collection of credit programs on our books already, and we have been discussing the fundamental problem that these are likely to pose when the time comes for us to withdraw monetary stimulus. The solution that I think you are right to pursue with the Treasury—and I would like to propose and I would advocate—is that we transfer financing of our credit programs wholesale to the U.S. Treasury and that we work to establish a new understanding—call it a Treasury–Fed credit accord, if you want—under which we would agree that, henceforth, intervention in credit markets, apart from our usual peacetime-like discount window functioning, will be the responsibility of the U.S. Treasury.

This would give us back control of the monetary liabilities on our balance sheet and would make it much simpler to find an exit strategy. It would reduce the risk of loss to our capital accounts and the attendant reputational risk. It would reduce the risk perceived by market participants that we might abruptly terminate some credit programs in order to reduce the monetary base. It would reduce the risk perceived by market participants that we might compromise inflation in order to sustain credit programs. It would also reduce our vulnerability to the charge that we are using federal monies outside the constitutional appropriations process and that we have abused our powers by disguising asset purchases and credit guarantees, for

which we do not have explicit authority, as loans. This is what we have done in the Citigroup and Bank of America case, and it is one thing that makes me very uncomfortable about those programs and would lead me to favor proposing that the Treasury take on those guarantees as well, because there is nothing in principle that limits their ability or the FDIC's ability to have taken on all of the risk in both of those cases.

In short, my view is that, no matter how you feel about our credit programs—whether you are for them or “agin” them—it would be better for the Treasury to finance them. I don't see any operational impediment to transferring our credit programs to the Treasury. Our expertise is very critical to them, of course, but we have been lending our expertise to the Treasury for decades by performing fiscal functions for them and helping them run their debt auctions, and we have recently lent our people to staff the TARP, and I don't see any reason that our people couldn't continue to be involved in the administration of programs. The Treasury would, obviously, have to issue additional debt to finance the programs, but the Fed would, in the first instance, have an equal demand for U.S. Treasury debt. From the public's point of view, the initial implementation would leave their balance sheets unaffected. Then, over time, we could vary the size of our balance sheet, independently of the size of the credit programs.

I think you are right, Mr. Chairman, that this would be an uphill climb. It would require broad agreement with the Administration and the Congress and perhaps even legislation. But I think you are also right to note that this is an excellent opportunity in this regard. We are on the cusp of sweeping revisions of decades-old laws governing financial regulation. Consideration is being given, as you noted, to forming a so-called aggregator bank. So I think it is a very good time to initiate a new understanding of the appropriate roles of the central bank and the fiscal authority. So I applaud your efforts to pursue those discussions. There may be an aversion to

spending our political capital—and I know we marshal that very carefully here in the System—on such a request. But we were willing to spend political capital in 1951 to gain control of the liability side of our balance sheet. That is what the original Treasury–Fed accord did, and that has been essential to the independent conduct of monetary policy since then. So I think we are entitled to exert ourselves politically on this one. Thank you very much, Mr. Chairman. I appreciate your indulgence.

CHAIRMAN BERNANKE. Thank you. I think, in principle, that we agree that it would be better to have all of this done by the Treasury. I think we have to accept political realities, prioritize, and try to address the most important issues first and see how far we can get.

On Treasuries versus other purchases, I don't want to get deeply into it, but any kind of model without perfect, complete markets has to recognize the existence of liquidity premiums, which can differ across markets and which affect the effect of a given amount of demand on a purchase of a given asset. So it isn't evident that applying our purchasing power on assets where markets are deep and liquid and liquidity premiums are low would have the same effect as on other markets where liquidity premiums are high. But I am just addressing that there is a reason that it is not a purely neutral operation. Yes?

MR. LACKER. I don't want to go deeply into technical details either, but a certain presumption with regard to credit risk is that there are potentially adverse consequences of distorting relative credit risks across markets. I don't see why the same thing shouldn't apply to liquidity risk.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. I would say that the markets are already distorted. We are starting from a point of the market not in equilibrium in the sense of normal long-time

functioning. We are starting with markets that are very out of joint relative to where they have been historically. So to say that you are distorting markets by the intervention, in fact we are actually trying to push markets back to something closer toward normality.

About your point whether there is a market failure in the securitization market, I think there is absolutely a market failure in the securitization market, and you basically cited what it was. The very fact that securitization rates are well above the rates that the banks would demand to hold it on their own balance sheet tells you that the market is fundamentally broken down. It is certainly true that those particular banks that you cited may not be balance sheet constrained, but the banking system as a whole is clearly balance sheet constrained. What the TALF does is basically provide balance sheet capacity to the private sector that the banking system today cannot provide.

Also, even if the ABS market is functional for those two banks that you note, there are a whole bunch of other problem areas in the securitization market that the TALF could be used to address in the future. For example, the commercial real estate market is an area about which lots of people have been coming to us and saying, “We are going to have a real problem refinancing the commercial mortgage loans that come due in 2009 because there is no balance sheet capacity in the commercial banking sector.” So although it may be true for the two particular banks that you described, I don’t think it is true for the banking system as a whole. I think that the TALF can address a real market failure because it provides a number of things that the market can’t get right now, which are balance sheet capacity, protection against downside risk, and term funding. Those three things are not available in the market right now.

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

MR. FISHER. I do want just to jump in. I thought your response was appropriate and correct, and obviously ultimately we would like to put as much of this back to the Treasury as possible. The ultimate objective is to insulate ourselves as a central bank as much as possible from political pressures, so we can do what central bankers do. I might also add as much as possible from market pressures, but that is another matter. But I disagree with the point made—and I agree with the staff conclusion—with regard to the purchase of Treasuries. It strikes me that there is enormous fear in the marketplace about the potential for open-ended stimulus in fiscal policy and there is great concern that we will acquiesce by monetizing fiscal policy. I am very reluctant to go down that road. That strikes me as one of the strongest arguments that the staff made. At any rate, at this point I don't think it is necessary. Rates are quite low as they are. I disagree, Jeffrey, in ideal market situations, as the Vice Chairman just pointed out—whatever you are of this Committee— [laughter]

VICE CHAIRMAN DUDLEY. I am still trying to figure that out myself.

MR. FISHER. As one of our many Vice Chairmen pointed out, this is a highly distorted market, and I would suggest—I was listening to what you said—in fact, the effort may lower Treasury rates at the price of raising other rates that you might crowd out perversely by supporting the Treasury market at this juncture. So I would support the staff's recommendations.

Because we have so many things on the table, I did have a question with regard to Brian's point. That is, when would we consider closing a facility? As long as we have these different facilities open—and we haven't shoved everything over to the Treasury—might it not send a good signal to the market—and I know President Plosser is probably going to talk about this a little, too, because we talked about it at lunch, just to be open—to close down one of these facilities that was not being utilized. For example, the AMLF or the MMIFF—all of these

“initialisms” are getting confusing—if they are not active, do we want to give to all of them the same time extension? That is my question. Now, you might respond that we don’t know yet but they might be utilized. I haven’t read through the specifics of your language proposition, but might we not at least make it clear that, if we feel that we have leeway, we could close down any one of these facilities while we extend their ultimate maturity? So the real question is, Can we find something that we might actually close to demonstrate that we don’t just have an open-ended book, until we reach the point that you wish to reach, Mr. Chairman, as you articulated and as President Lacker argued, where we shove this onto the Treasury?

MR. MADIGAN. I think that general principle is right. In fact, in the open market area we have wound down one program—the long-term RPs. But right now I think that simply extending the facilities does not mean that they will necessarily be in place for the entire period of time. The FOMC and the Board could evaluate, as time goes on, whether these programs are needed. I do think that closing down any of these programs at this time does run the risk of sending a signal that you think you are pretty far along in this process and you are going to start closing things down relatively quickly. So I think it carries a risk.

CHAIRMAN BERNANKE. Trish?

MS. MOSSER. For what it is worth, I think that the signal to markets of closing even the dormant facilities, given my obvious view about how fragile things are, could actually have a pretty serious, significant, adverse effect, even though they are not being used. They are viewed very much—particularly the two facilities you mentioned and particularly the MMIFF—as a backstop. We don’t need it now. It is not priced attractively, frankly, given the spreads in markets. But should we go through another period, heaven forbid, like September and October, it would be used, according to market participants.

CHAIRMAN BERNANKE. President Plosser has been very patient. May I turn to you?

MR. PLOSSER. Well, some of my remarks were in fact going to be exactly this point—that we need an opportunity to bolster our credibility. As President Fisher said, I think we have an opportunity. The AMLF, in particular, is winding down. It is not being used very heavily, and indeed it is a facility that is almost redundant given that we have the commercial paper facility and the MMIFF and all of those three programs are intimately related to one another. It doesn't appear to me at all obvious that we need all of them. Whatever the AMLF is providing could also be provided as backstop through the CP program and through the MMIFF. So I think we could do ourselves a real favor and signal to the market that we are judicious, careful, and wise about our choice of programs—that when we believe we have redundancies in the programs we don't just let them run on and on and on. I think it would do a lot for our credibility.

There is another program that we haven't really talked about in a while and that I think we could also eliminate without much consequence and have, again, a credibility issue with the distinction between us and the Treasury. In August, we had an agreement with the Treasury to allow the GSEs to borrow from the discount window. The argument in that case was that we were doing that because the Treasury did not yet have the appropriations to do the lending and they needed to get that worked out. They certainly now have that, and indeed, the GSEs are wards of the state. To the best of my knowledge, we have never lent to the GSEs through the discount window. I don't anticipate that there is any prospect that we will. The fact is that we are buying agency debt as it is. To the best of my knowledge, we haven't rescinded that authorization—or at least the Board hasn't rescinded that authorization.

So I think these are two examples in which programs are actually not doing anything particularly. We have other means of backstopping the markets that we are worried about. By

beginning to show that we can be thoughtful in how we unwind some of this stuff, it could actually be a credibility-building device. To the extent that there are very, very fuzzy lines out there in the world among the political classes, including the public, about where the boundaries are drawn between fiscal policy and monetary policy—which I believe is the case—these two actions might help us draw back and gain a little more clarity about what we are about and what we are not about. I would just say, Mr. Chairman, that I applaud your efforts with the Treasury on this, and I support them 100 percent and will do anything I can to help that along because I think it is a very, very important step. I think that we could have an opportunity by extending some of the programs but not extending those that aren't really doing anything.

As long as I have the floor, Mr. Chairman, I would like to comment on a couple of other things. I think we need to work harder on developing the specific information—that is, both data and qualitative information—that we need to make our decisions exactly about extending or exiting from these facilities and any new ones that we might create. This would help our own policy deliberations, making us more systematic in our approach, and would be beneficial to market participants, helping them learn what to expect from us. Although the decision today for many of you may seem obvious that we should extend all of these facilities for fear of disrupting something or other, I think that, as we get closer in time to a situation in which we really do want to exit these programs, the decision process will become more difficult. Having a more systematic, data-driven approach to making that decision in advance will do a lot to help us as we move forward.

We presumably want to look at metrics to gauge the efficiency of these facilities in improving the functioning of particular markets. In the past, we saw a great deal of information on spreads, but, as I have said before, I don't consider spreads as sufficient information.

Volumes are important as well, as I have stressed. I appreciate the work of Spence and the staff. I thought that the detailed discussions of the different programs were very helpful, and I applaud the staff for that effort. But we also need to know what to do with those data and how we interpret and analyze the information. As has been alluded to already, if trading is thin, for example, some spread measures may be completely irrelevant to thinking about some of this information. It may be a demand problem as opposed to a market liquidity problem. Moreover, I think we need an idea of what level of spreads and volumes we will be satisfied with when the time comes. The memo from Vice Chairman Dudley on Desk authorizations talks about reducing spread levels more in line with historical norms. Is that the right level? What does that mean? Does it mean that we have spread levels similar to those in July 2007? I very much doubt that. Shouldn't we be thinking that these spreads will be elevated perhaps for some time to come given the real credit risks that have been revealed in the current episode? If so, how much higher? And shouldn't we be thinking about spread levels consistent with weak or recessionary economic periods as a more proper benchmark in this environment? It is certainly true that spreads on some consumer-type loans are very high. But many are not out of line with what we have witnessed in other recessionary periods. How do we tell the difference, and how do we think about that?

In addition, to the extent that private-sector intermediation is broken and the Fed's lending facilities are substituting for some of that role, it seems to me that you want to look at metrics to gauge the degree of private-sector intermediation. I think that we need to focus more on the health of the banking sector itself, such things as loan growth and the use of reserves in the banking sector. As I discussed last time, I think quantities of these various measures on our balance sheet will be relevant for those sorts of discussions as to how we think that

intermediation process is functioning. We need to pay attention to how we set prices in these facilities. We want to ensure that our lending facilities don't crowd out private-sector intermediaries when they are healthy enough to return to the market. Otherwise, of course, we risk distorting the real price signals and potentially delaying the recovery of credit-market functioning. More discussion of price-setting in our facilities would be welcome. We heard some of that today, and I applaud that. Do we have the right penalty rates built in? Are the auctions set at the right minimums? Referring to these on a regular basis and discussing the implications they have on volumes would help us be alert to changes in markets and their functioning and help ensure that we are not delaying the markets from healing themselves. So, overall, I think we should have a much more systematic analysis and discussion of these sorts of issues if we are to properly assess the effectiveness and necessity of these facilities.

I have already talked about terminating some of these programs. By letting programs like the authorization of the GSEs and the AMLF expire—I think they are redundant—and canceling this emergency access to the discount window, we can strengthen our credibility, we can further delineate the line between fiscal policy and monetary policy or between the Treasury and the central bank, and we will strengthen the belief that we in fact will withdraw from these special arrangements at the appropriate time and do so in a thoughtful way.

I would like to talk just a bit about the purchases of long-term Treasuries. The staff recommends keeping this program at bay for now or at least not implementing it. I don't really have any strong objections to that. I think the staff's memo, though, omitted one reason that buying Treasuries, in fact, might be desirable, and I really didn't find its arguments for not doing it terribly compelling either. I see some benefits to having more Treasuries in our portfolio, regardless of how one assesses the magnitude of the real economic effect on borrowing. It might

prove easier—and I think this gets back to the accord, Mr. Chairman, in your discussion—for us to unwind from some of these things if, in fact, we have Treasuries rather than MBS. I think our credit programs do carry risks. Aside from the moral hazard problems we have created, we face challenges when we attempt to liquidate particularly non-Treasury assets from our portfolio. We will get pressure from various interest groups to retain certain assets. We will certainly, in all likelihood, get calls from consumers, builders, and Congressmen if we start to sell mortgage-backed securities out of our portfolio in order to reduce its size. We will hear fears that the mortgage rates may rise. We will have some market participants resisting our desire to pull back from our credit programs, fearing that markets remain too fragile or the economy's headwinds are too strong. I think we will make every effort to resist such pressures, but they could make it difficult for us to conduct monetary policy in a way that is consistent with our mandate, particularly our mandate for price stability. Moreover, given that we have crossed the bridge on credit allocation schemes to specific markets, it will be much easier in the future for special interest groups to ask us to repeat such actions, especially if they can't get the answers they want from the political process.

Thus, I think—and I realize this view isn't shared by all—that the credit allocation schemes we are pursuing run a real risk of impinging on our independence and our ability to control our balance sheet and, hence, monetary policy. Again, drawing back from the AMLF and perhaps the GSE discount window lending facility may help us begin to reassert a bit of that independence. For that reason, I am not uncomfortable with buying long-term Treasuries, partly because of their portfolio effect as a substitute for buying MBS. Mr. Chairman, I think that your comments about moving more of this to the Treasury are exactly right, and it certainly applies to Maiden Lane. I think it would apply to the CPFF in some respects and perhaps to the TALF, as

President Lacker was suggesting. I didn't find the staff's arguments against purchasing long-term Treasuries particularly compelling. I guess I share President Lacker's view that, if we are blowing up our balance sheet—whether we are blowing it up with MBS or with Treasuries—it is still expansionary monetary policy as far as I am concerned, and I don't think it should make that much difference on inflationary expectations. The staff also raised the problem of interest rate risks inherent in longer-term Treasuries. Again, I don't see this as a particular problem distinct from our purchases of mortgage-backed securities, which also contain interest rate risk at the end of the day, if we have to sell them. Both of these programs increase the maturity mismatch on our balance sheet in very similar ways.

I am a little puzzled—maybe I will save this for the policy go-round—about why we should leave the door open in the statement. The estimated reduction in longer-term yields, as the staff suggested, is somewhere between 10 and 30 basis points, which is, at best, quite uncertain based on the empirical evidence. Putting aside my concern for portfolio composition and my preferring Treasuries, I don't find buying long-term Treasuries that compelling, except for this portfolio reason. Thus, a better reason for leaving the door open may be this portfolio argument, but I don't think we could explain that very well. We could simply say that we continue to weigh the costs and benefits. But I do have some reservations about continuing to discuss in our statement programs or actions that we might or might not take. I think that there are certain risks to that in terms of making markets believe that we may do something, and then, if we don't do it, we lose some credibility. But we can talk about that in the policy go-round.

Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker, you had a quick two-hander?

MR. LACKER. In the interest of your interest in informal exchange, I was interested in responding to our new Vice Chairman.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. I don't understand in what sense the observation that prices are low and that quantities are very low constitutes a demonstration that the consumer-backed ABS market is broken down. Can you think of a model in which that results? Yes, demand is low, and supply is elastic. I sketched out one. What we are talking about, it is important to remember here, is the interaction, the rivalry, between the balance sheet channel of credit flows and the securitization channel. A broad array of contractual features are important to the relative attractiveness for market participants of those two channels—covenants, risk allocation, regulatory and accounting treatments, and the like. On balance sheet constraints—would some firms prefer that the demand for securitization be higher, high enough that securitization was less costly for them than holding it on balance sheet? Yes, I am sure that is true. But if that is the criterion for whether or not a market is broken down, then it is hard to see the difference between a market being broken down and just regulatory capture in some broad sense.

You talked about markets being distorted already. I can picture information constraints, verification costs, asymmetries, and the like that would lead market outcomes to be less felicitous for all concerned than they otherwise would be. But, yes, information constraints constrain achievable outcomes, but so do technology constraints. Would we be better off if we could get more output with the same amount of labor and capital? Yes, we would. But I don't think you would call the market distorted because that is the case.

The question is why it is distorted. If you come to me with a model—with some story, not even a model—that sketches out the interaction of information with technologies and with

market participants' incentives that convinces me that markets are distorted in a way that government intervention can remedy, I am all ears, and I would be happy to talk about it. I have been asking for that for a year and a half. I have been even doing the work for you. I have been even bringing models to the table. I haven't gotten any information or any market observations that seem consistent with one story or another. I am not sure that this request has been taken seriously. So, yes, if markets are distorted by something or other, fine, but that is hardly an answer for justifying the TALF in my view.

VICE CHAIRMAN DUDLEY. I guess this deserves an answer. [Laughter] Well, first of all, I think we have a fundamental disagreement about how we are looking at the current set of events. I think we are in the middle of a disequilibrium, not an equilibrium. You are looking for models that describe equilibrium outcomes, and I think we are in the middle of a disequilibrium caused by the massive deleveraging of the nonbank balance sheet. As that process unfolds, we are not where your model wants to describe.

Number two, what we are observing is well outside the realm of historical experience. So I think that to be able to produce a model that describes what we are seeing is very, very difficult because we have never been here before. We are just generating the empirical data now to develop the model that we can actually test. In terms of this issue—is the securitization market evidence of market failure?—I think my example is just a very simple one. The fact that the bank, as you describe it, would rather hold these assets on its balance sheet than securitize them and AAA yields are higher than the net return to the bank of holding them on its balance sheet is telling you that there is a lack of arbitrage between the bank market and the nonbank market.

I think fundamentally we have a disagreement about what the process is that we are describing. You say, “Show me a model.” I certainly want to see your model that describes what has happened over the past 18 months because I think it is very, very difficult to show that model as well.

CHAIRMAN BERNANKE. I am going to regret this, but I am going to ask you a question. [Laughter] Do you think the United States economy is at a Pareto efficient point at this moment?

MR. LACKER. Probably.

CHAIRMAN BERNANKE. With the best position we can be at right now?

MR. LACKER. Roughly speaking. All constraints taken on board.

PARTICIPANT. What was the question again?

CHAIRMAN BERNANKE. The question was, Is the United States economy at a Pareto efficient point at this moment? And the answer was “yes.” Okay. So that is obviously a different view.

VICE CHAIRMAN DUDLEY. Yes, that is a fundamental basis of the disagreement.

CHAIRMAN BERNANKE. Okay.

MR. EVANS. May I ask an information question?

CHAIRMAN BERNANKE. Yes.

MR. EVANS. President Lacker alluded to two banks that funded their operations at a very low rate. Was that with the FDIC senior guarantee on their debt?

MR. LACKER. One of them.

MR. EVANS. That is a distortion that is helping them, right? I am running into that when I talk to a lot of people. I will come back to that.

MR. LACKER. I am fine with that, but—

MR. EVANS. Well, that is a distortion.

MR. LACKER. That is a government intervention. Are we intervening to make securitization just as subsidized as bank balance sheets?

MR. EVANS. Our problem is that there is one distortion here, and then there is something else, and then they don't offset or they do offset, and people are inside or they are not.

MR. LACKER. If we are in a world of second best, I understand that.

VICE CHAIRMAN DUDLEY. We are in that world. We definitely are.

MR. LACKER. Well, then, what is it that unfairly tilts the playing field toward bank balance sheets? I mean, you have this regulatory tax, and it tilts in the other direction.

VICE CHAIRMAN DUDLEY. You are exactly right that historically the securitization market has had elements of regulatory arbitrage. I think that is true. But I think, in this particular case, it is not really the reason that AAA ABS assets are still selling at such high yields right now. The reason that they are selling at high yields right now is that the borrowers who would love to invest in these assets on a leveraged basis can't get leverage. Their inability to get leverage is being driven by the balance sheet constraints of the dealer and bank community, which is a disequilibrium event caused by their historically large mark-to-market losses and loan-loss provisions, which are depleting their capital and constraining their ability to lend. So this is a disequilibrium. Five years from now, we won't be here, and banks will have the ability to lend, they will be able to lend on AAA assets on a leveraged based, and AAA yields will be much lower.

CHAIRMAN BERNANKE. Let me just say in response to President Plosser, I should tell everyone that, assuming that we extend these programs and the swaps, we will not announce

anything until Thursday morning because we want to coordinate with the foreign central banks.

Is that correct?

VICE CHAIRMAN DUDLEY. Yes.

CHAIRMAN BERNANKE. So, first of all, obviously, please keep it confidential. But could I ask the Board and the New York staff to have at least a discussion about the two programs that President Plosser mentioned, the GSE approval and the AMLF. I think I would propose to extend the AMLF today as part of the package, but the Board would have the ability to reverse that tomorrow by notation vote if we decide that we get some kind of support. Okay.

MR. PLOSSER. The AMLF is not the FOMC; it is the Board.

CHAIRMAN BERNANKE. I understand that, but what I am saying is that I am hearing what you are saying, and I think we ought to look at that particular program. We have to be a little careful because we don't have a lot of advance time here. But we should look at that.

MR. PLOSSER. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker, quickly.

MR. LACKER. Just real quickly. Disequilibrium, in this context, is a non sequitur. It is a conversation stopper. It is like appealing to astrology—it is the equivalent of that. If we are out of equilibrium, what happens out of equilibrium? What is determining what happens? People make choices on their way to making adjustments. They were in equilibrium when they made the choices that resulted in the losses, and now that equilibrium is playing out, obviously. Would these leveraged borrowers like there to be a greater demand for their liabilities? Yes. This all looks as though demand is low. I will ask you a question. The buggy whip industry—is that sector broken?

CHAIRMAN BERNANKE. President Hoenig, on that note—

MR. HOENIG. Oh, wow. [Laughter] Only 45 minutes later.

MR. LOCKHART. Can you answer the buggy whip question? [Laughter]

MR. HOENIG. I have heard that story, and I don't need to review it again. I have just a couple of things that I want to comment on here. First of all, I do appreciate this, because we are thinking about where we are and we are thinking about how we might exit this, even though we have a lot of turmoil ahead of us. That much I appreciate. I think that part of President Lacker's point and the Vice Chairman's point may be that we are in an adjustment process. We are deleveraging like crazy in this economy. That resulted from an excess at an earlier point, and we are going to find a new equilibrium. That is the process we are going through, and it is very difficult.

Much of what we have done I wish had been done in the Treasury to begin with. I still think that would have been the right call. But it wasn't, so we are where we are. How do we get where we are going, and how do we do this transition? What we have are these facilities, and I hope that we use them temporarily. I hope we do take advantage of working with the Treasury to move as much of it out as we can. Some of it is self-liquidating, and I think we will get out of it. But some of it is not, and that is the part I would like to be able to push toward the Treasury, and that would be part of our plan. I would also say that I am reluctant to go with long-term Treasuries, not because I don't necessarily agree with some of what you are saying but because I am worried about some of the consequences of the perception that we are directly funding the Treasury and monetizing debt immediately. I want to think that through before I get on that bandwagon, given where we have already come at this point.

To change just a bit, Mr. Chairman, I want to talk about the TARP and the future as we go forward, as you have these discussions coming up. I think there is no confidence in it. It has

been inequitably administered across the United States, and that is why you have such bitterness about it. So in looking forward, we have an opportunity to do that better. The way we outline how we are going to deal with financial institutions and banks in the future is extremely important now. I want to thank Nathan for the summary report on the Swedish experience or the Nordic model and so forth because, as we talk about aggregator banks or RTCs or some approach to the problem, I think that is a very good model to look at. It offers us opportunities to deal with this problem as it gets worse because I think the problems across a broader base of banks are getting worse. Commercial real estate is now feeling a little pressure. I think we are beginning to see a turn in agriculture again and a turn related to energy. These problems are going to become more difficult, and how we go forward with the next iteration—and I wouldn't call it the TARP any longer—of this banking problem is important.

One thing that I have some disagreement with regarding Nathan's conclusions is whether we have the mechanisms to do a kind of Swedish model, given the more-complex institutions and the size of this country. But I suggest that we do. We have a cadre of experienced people across the United States—in the Comptroller's office, the FDIC's office, and the Federal Reserve's offices—so that when this comes, if we think about it now and plan, we can begin to say which banks should be looked at.

Part of the problem with the last issue of the TARP was that we went in and looked at a lot of these institutions and they were on the margin. But we were changing the criteria as we went along instead of having the criteria set and going in and looking at these institutions. Which ones are solvent at the moment, and for which ones would capital help maintain solvency? You can't have any guarantees on this, given the trends in the economy. But we ought to have a systematic, equitably applied solution for the next wave that is coming our way.

That would be very important to have set up because it would help keep a lot of commercial real estate loans off our balance sheets. If we handle the next section as we have the past around asset-backed securities, we are going to have a lot more assets on our balance sheet, and that does worry me. So that is something for us to think about going forward.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. First of all, Mr. Chairman, I agree with your prioritization that, to the extent possible, it makes sense for the programs that have substantial credit risk to be borne by the Treasury. Obviously certain circumstances forced other decisions along the way, but I think that is a good prioritization. Then the second prioritization is that ideally we would be focused on markets and not individual names, and that's consistent with moving the Maiden Lane facilities over to the Treasury to the extent possible. I think both of those prioritizations make sense.

On the AMLF, I actually was roughly at the same point in November, and its size has come down since then. It has been interesting. I have had a number of discussions with a variety of mutual funds about winding down the AMLF. They don't view the AMLF as being the same animal as the other money market facility, and I have been told that it will take severe duress before they use the other facility because they are worried about stigmatizing themselves. As for the AMLF, because it is the sale of asset-backed securities, there is not the same stigma attached. So actually we had \$800 million come in today. It was a money market fund that has experienced very substantial runoffs that are not occurring with other organizations. I have been told that, even if it goes down to a small number, money market funds' willingness not to hold extensive cash balances or very short term maturities is, in part, due to the fact that they can liquidate their positions in asset-backed securities relatively quickly. The AMLF is not ideally

structured—I definitely agree with that—but I am not sure that the other facilities are perfect substitutes. If we were not to extend it, I would want to do that only after some discussion with a number of money market fund families because I think we might find that it would have an effect on their willingness (a) to hold asset-backed commercial paper and (b) to hold a variety of other assets. I think that they would look for other ways to get much more liquid because, as has been highlighted, the financial markets are very fragile.

MR. PLOSSER. May I just ask about that? The asset-backed paper that actually comes through the AMLF, is it mostly commercial paper?

MR. ROSENGREN. It is all asset-backed commercial paper. It's all A1/P1 asset-backed commercial paper.

MR. PLOSSER. So they could also sell that into our commercial paper facility, could they not?

MR. ROSENGREN. They are not issuers. This is a money market fund. The commercial paper facility is for issuers of commercial paper. The AMLF is for money market funds. So they are not the same.

VICE CHAIRMAN DUDLEY. The issuer, in principle, could buy it back from the money market fund and then potentially issue into the CPFF, but that is not an obligation that the issuer would necessarily have.

MR. PLOSSER. Thank you.

MR. ROSENGREN. There has been an unwillingness to do that actually. It has been the experience of the money market funds.

In a more general sense, I think that, since the end of the third quarter, we have been in a situation in which both the securitization market has broken down and bank balance sheets are

quite constrained, which is why we have seen spreads that are very, very large. I do think that the various short-term credit facilities that we have established have both brought the spread down and brought more liquidity to the market more generally. So in a general context, those facilities have been quite beneficial.

I have just a couple of short comments. First, in the earlier presentation, I noted that tangible common equity was highlighted in the slides, and I would say that a lot of our programs have been tied to preferred equity, and the markets, Moody's, and the rating agencies are focused on tangible equity. So whatever we do going forward, I think we need to spend a lot more time thinking about tangible common equity because we are seeing in supervision presentations that institutions that have substantial excess capital by regulatory ratios are also sometimes institutions that the market is running away from because, when they do the tangible equity calculation, it's a problem. So we ought to give a little more thought to common shares going forward.

Second, I come out in a different place related to our purchase of mortgage-backed securities and GSEs. Mortgage rates have been around 6 percent for a year and a half. After the announcement of the program, they went down to 5 percent. The housing market has been the epicenter of this problem. It is a problem both for the housing market and for financial institutions. Rather than cutting back on that program, if we are trying to have an effect on borrowing costs that affect the economy, that program would be the one I would expand. I would expand that program and not do Treasury securities because Treasury securities are the one asset that everybody wants to buy now. So I am not sure that we have to get in line with everybody else to buy the same thing that everybody else wants and push down a rate that is already low. The problem is not that Treasury securities are too high. The problem is that

everything else is high relative to Treasury securities. So if we want to lower borrowing costs, that is exactly what some of these facilities are designed to do, and that is what I think we need to do. So I am supportive of doing more actually for the mortgage market, and that is for discussion tomorrow.

The TALF is of the same nature, and I think it actually is quite beneficial. I would hope that we could get it operational as quickly as possible. I know that dealing with accountants, lawyers, and others becomes very complicated, but I think that the sooner we get that up and running, the better. I do question whether the size is going to be appropriate if we really want to have a significant effect. We are going to have to look at both the size of that facility and the assets that we are thinking about—particularly the CMBS market that was alluded to. It is designed to deal primarily with original issuers of these securities. Another question that is similar to the problem asset—for holders of those securities, you could have a TALF-like program that deals with people who are holding those assets rather than issuing those assets. That gets more at the financial institutions' issues rather than at the issuers' issues, but I think that is another program that we should at least think about as an alternative. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. I agree with you, President Rosengren, about the objective of trying to lower the spread on the MBS, and the mortgage market is important. However, another way of expressing one of my concerns is that, as we continue to focus on one asset class at a time—mortgage-backed securities, asset-backed credit card debt, auto loans—I worry that we are gradually being drawn into an ever-wider array of private credit markets and private asset classes and instruments that we will just gradually expand. Where is the limit to this, and how do we

define what those limits are? How do we decide what the criteria are that constitute something important enough for us to intervene in that way? I see this creep broadening our balance sheet in ever-greater dimensions in these private credit markets. I worry that, in its doing so, the implication is that, almost in a negative feedback loop, each market is going to become dysfunctional by something so that it will drag us in. My desire is to have better objective criteria that help us decide when it is appropriate and when it is not, because I think that we are just going down a slope here that is broadening the scope, which is not helpful for the institution.

CHAIRMAN BERNANKE. President Plosser, we do have a shadow value on our balance sheet constraint, right? So we do have limits to what we can do, and so we have to make choices about where the impact will be most effective and where it will be the best for the economy. Vice Chairman Dudley and then President Rosengren, and then I am going to go without hesitation to President Evans, who has been waiting.

VICE CHAIRMAN DUDLEY. There is a presumption in President Plosser's remarks and President Lacker's remarks earlier that, if we intervene in one market, we are going to make these other markets that are adjacent to those markets somehow worse. In fact, we have seen in several cases that it actually does not work that way. It works in just the opposite way. One good example is the commercial paper market in which the A2/P2 market has actually improved probably in part because of the commercial paper funding facility's taking some of the strain off the commercial paper market. So it might work that way sometimes, and improving one market may make another market worse. But it also may be that improving the function of one market by providing balance sheet eases the aggregate balance sheet constraint, which then leads to improvement in other, adjacent markets. So it is not necessarily true that doing something in one market makes other markets in which we are not intervening worse.

MR. LACKER. If I may just comment on that, the important thing is to keep track of what sort of thought experiment you have in mind. A sterilized intervention, or an intervention in which you are intervening in a market and comparing that with intervening more broadly in Treasuries, is one thing. Another thing is an intervention that is unsterilized and that does not pull some other assets out of the market. I would just point to Ms. Mosser's presentation, which she opened with characterizing markets as that rates in markets in which we have intervened have broadly improved and rates in markets in which we have not intervened have broadly deteriorated. To me that has the flavor of consistency with the notion that our issue of liabilities and sale of Treasuries is pulling funds out of other markets and increasing rates.

VICE CHAIRMAN DUDLEY. But did they deteriorate because of our intervention?

MR. LACKER. We have to fund it somehow, and the funding is going to pull money from somebody, right?

VICE CHAIRMAN DUDLEY. Did they deteriorate because of our intervention, or did they deteriorate because the macroeconomy was deteriorating at a very rapid rate? I would argue that they deteriorated because the macroeconomy was deteriorating at a very rapid rate, not because of our intervention.

CHAIRMAN BERNANKE. President Rosengren—quickly.

MR. ROSENGREN. Just very quickly, in terms of the allocation, housing is an interest-sensitive component of GDP. Every time we change interest rates, we are in effect going to have an impact on housing, and it is going to be disproportionately borne by housing than other sectors of the economy because of its interest-sensitivity. I view what we are doing with the MBS and GSEs as dealing with the one area that we can actually change. I think it is going to have a much bigger effect. In the Greenbook charts that we will be looking at tomorrow, if we

had a fed funds rate that we could lower, I do not doubt that we would be lowering the fed funds rate if we had that possibility. We don't have that possibility. So we have to look to an alternative asset. Where is the biggest bang for the buck? It's probably in housing right now.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I will just make a couple of comments based on the discussion today. When it comes to the TALF, I find that I am of two minds. I do think it will ultimately be useful for deploying important central bank liquidity in an attempt to provide more-accommodative conditions. But I am concerned that we are picking winners throughout this process. When you mention that we are going to consider CMBS, I am reminded of the fellow who came to my office and gave me a presentation. He owns shopping malls, and last fall he desperately needed funding and still does, but they are not worth very much at the moment. He wanted a program like this, but it wasn't available—I do not know that it was, anyway. I have also received phone calls from heavy equipment manufacturers in my District. I know you have gotten a letter from at least one of them about their finance company financing. For them the issue is that they are unlucky enough not to have a thrift through the OTS. So they cannot get the FDIC unsecured-funding temporary guarantee on that, and their assets cannot be funded that way. There are some competitors that have access to this, and they have done very well, and others that haven't. As we get into this allocation type of decisionmaking, I am not quite sure how we are going about doing it. Is CMBS selected because it is an important market that we need to keep functioning or because it is going to have a particular macroeconomic effect that is beneficial? How does that compare with other sectors and whether they are on our radar screen or not? Maybe that was the right decision, but when we select certain types of asset-backed securities to buy—it is just very difficult.

I also want to agree with many of the comments that President Plosser made with regard to the programs that we have. The briefing today was very helpful in describing the various programs. I think we need some additional metrics along the lines of just routine types of statistics so that we can see and have a better idea. Your familiarity is very great with these, and ours is not as great. I have to admit, as I look at it more, I find that, although I am very concerned about exit strategy in general, at the moment our balance sheet doesn't worry me quite so much.

Finally, I want to applaud your comments at the beginning, Mr. Chairman, about discussions with the Treasury and that we, as best we can be, should be allergic to any attempts to use our balance sheet for long-term financing. I think that is exactly right. I wish you all the best for all of us. [Laughter] I have tried to grapple with the very vague discussions of aggregator banks, and when I talk to academics, they do not always help me because they resist the fact that public funds are going to be put into this—they think that it really should be something that public funding is not a part of.

If you pick a very large number that is required to take assets off the balance sheet of banks—I do not know what the number is, but it is in trillions—and then you think about how the Treasury is going to fund this, the only way they can do that is by issuing Treasury bonds. Ms. Mosser was talking about how \$150 billion puts strains on yields. I think you very quickly come to our balance sheet and how we are able to leverage up, and it even makes sense—because why do the gross funding through bonds when it is really a net kind of funding against assets? So it makes a lot of sense, but it causes a lot of trouble. I hope that I am wrong in thinking about that and that there are very easy ways out of it. But those are some of our concerns, and they will be very important.

CHAIRMAN BERNANKE. I certainly agree that you cannot trust academics.

[Laughter] President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Just a couple of curiosity questions really for the staff. If we were to convey assets to the Treasury and mark them to market at that time, let us say, Maiden Lane or AIG, what losses would we be recognizing at that point?

CHAIRMAN BERNANKE. Well, we have a mark-to-market loss on the Bear Stearns assets in Maiden Lane I. We don't have mark-to-market losses in anything else. What would be ideal would be to work out some arrangement. It would take some accounting work, but at Maiden Lane I, we have a letter from the Treasury saying that the Treasury will bear those losses through seigniorage, and there should be some way to arrange an asset called future reductions of seigniorage or something like that that would make us whole. I think that those things can be worked through, but obviously there is a lot of technical work to be done on that.

MR. LOCKHART. The second question—nobody has mentioned any particular markets on our radar screen that, if we had criteria, we might intervene in. But the one on which I get feedback is the municipal market, and we have a legal issue that we cannot lend to municipalities unless they happen to be corporations. Presuming for the moment that there was some legislative treatment of that, what is the status in discussing with the Treasury an intervention in that particular market? It is a broken market as far as I can tell at this stage.

CHAIRMAN BERNANKE. That has not come up.

VICE CHAIRMAN DUDLEY. I would say that the market is not doing well, but it is doing better than it was a month ago. So it is improving, but I am not aware of the Treasury having this on the front burner.

CHAIRMAN BERNANKE. The fiscal package has a great deal of money for states and localities, which would probably be the primary source of support for those.

VICE CHAIRMAN DUDLEY. In principle, you could set up an SPV that the municipality issued out of. That would be the corporate entity that we would lend to. You could do that, but it is not clear whether this problem isn't going to gradually resolve itself.

CHAIRMAN BERNANKE. I do want to pick up on what President Evans and President Rosengren said, which is that I think it is possible to set criteria, but there is a constraint on how much we can do in terms of both size and duration and, of course, limits on credit risk. Given those constraints, we have to make choices. Although I do not think that this is actually science here, I do think we can try to think about, for example, interest-sensitive sectors or sectors in which our interventions will have particularly strong effects on liquidity premiums and the like. So it is not science, but I do think there is a sense in which we can make those choices and in which we are constrained. But I recognize that this is a whole new field.

I would make the comment that I have had recent conversations with foreign leaders, including Prime Minister Brown—all of whom said that the Federal Reserve is leading the way. The United Kingdom is undertaking these programs. Japan is undertaking these programs. It is becoming a new approach. When you hit zero, you have to think about other ways to affect the economy, and so at least in that respect we are not the outlier anymore. President Yellen.

MS. YELLEN. Thank you. A lot of ground has been covered, and I do not want to rehash things that have already been said. In general, I would just associate myself with President Rosengren's remarks and say that, with respect to choices that we have to make, I very much agree with the idea that a focus on mortgage-backed security markets is something that can be effective, is working, and deserves priority. I also want to support the point that Bill Dudley

and others have made about commercial-mortgage-backed securities and the notion that this is something that was announced in connection with the TALF, that we were studying the possibility of extending this facility to commercial-mortgage-backed securities. We have been following this quite closely, and I would like to agree with the points that Bill made about this.

This seems to me like something that could be the next very serious problem for the banking system and for property prices in general. There is huge rollover risk here, where we have hundreds of billions of dollars of loans that are coming due on commercial properties for which the underwriting was originally pretty solid. I am very concerned that the underlying economics is now deteriorating largely because of the economy, and banks obviously have very high concentrations. A lot of banks in this area are very loath to lend. The commercial-mortgage-backed securities market seems to be completely dead. I am really very concerned that, without the ability to refinance these loans, we are going to have properties dumped on the market and we will begin to see exactly the same thing happen with commercial real estate that we are seeing with housing. It could lead to a further wave of unnecessary bank failures. So although I am sensitive to the idea that, yes, we are making decisions about what sectors are deserving or are of priority in terms of credit allocations and there are counterarguments against our doing that, we do have choices to make, and I would focus a lot of serious attention on proceeding in that area.

CHAIRMAN BERNANKE. Let me turn to Governor Kohn and then take a coffee break. Then we can continue if people are so inclined. Governor Kohn.

MR. KOHN. Just a few quick points, Mr. Chairman. I agree with those who say that it is very uncomfortable picking which markets to intervene in. I wish we weren't here, but we are. I just do not see an alternative to it. I think we have been here since August '07 really, when

balance sheets constraints—people were hoarding capital and liquidity—impaired the arbitrage among markets, and central banks had to use their balance sheets to step between private parties increasingly to take risks where the public was not willing to take risks. Now governments are going to have to step in to spend where the public isn't willing to spend. So we have this withdrawal from risk-taking, this hoarding of capital, not spending, and the government's role here is to step into that breach to keep the economy from shrinking even further. Arbitrage is broken. I think there are balance sheet constraints. Jeff's banks in the Richmond District may say that they have not changed criteria, but certainly the answers to the Senior Loan Officer Opinion Survey suggest that banks in other Districts have tightened terms and standards for making consumer loans.

It is really hard to judge which markets, I agree. I think they should be important markets with systemic effects and ones where our intervention can make a difference. It is really hard to say ahead of time, but we ought to be looking for those. I agree that we need to be thinking about exit strategies and balance sheet constraints, but I sure hope we do not put emphasis on that. I think our problem right now, given where we are, is not how we are going to get out of this but how we can ameliorate the decline in the economy. The more we talk about how we want to get out and the constraints, the less effective our policies will be. I think that is what happened to Japan. The Japanese central bank kept talking about how they did not really want to be here, they could not wait till they got out, this was uncomfortable, and they did not want to be doing this. I think it undermined that aspect of the credibility of what the central bank was doing. So you are right. We need to have this conversation internally. We need to keep three chess moves ahead in what we are doing. But I wouldn't want worries about the size of our

balance sheet and our exit strategies to importantly constrain our ability to make a difference in credit markets going forward.

On the buying of Treasuries, I would keep that on the table. I think rates are already low, as President Rosengren and others have pointed out. We do not really need to intervene there, whereas for mortgage-backed securities I think the interest rate risk is low because some of us might argue that those rates were too high relative to Treasuries and we are not taking the same kind of risk buying at that low price versus the high price that we might be with a Treasury. But it is not really about the risk on our balance sheet. It is about the effects we can have. Those rates are already low. I do not think we need to buy Treasuries at this point. I would keep that option on the table to see what happens to those rates going forward and where we think we can be most effective.

In terms of worries about monetizing the debt, here I do agree with President Lacker. I think this is about inflation and inflation expectations. We are, I hope, going to take some steps to make our inflation objectives a little clearer tomorrow. I think we need to keep that in mind, and we should not have to worry about people accusing us of monetizing the debt. We should keep our focus on the macroeconomic variables.

Finally, on transparency, we have started up, as the Chairman said, a little working group to see what more we can do. We are concentrating in part on the collateral side. Can we say more about collateral without impairing the functionality of our windows? We are thinking about things we might add and publish quarterly instead of weekly and whether there is more we could do on that basis. Any suggestions that Reserve Banks have would be gratefully received. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Why don't we take a coffee break until 4:30, and then if anyone else would like to enter in when we come back, that would be fine.

[Coffee break]

CHAIRMAN BERNANKE. Okay. Let's resume. I do not want to cut anyone off. Would anyone else like to comment? President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I am going to play the role of provocateur here and ask a couple of questions that are in the spirit of having a wide-ranging and strategic discussion, as we are having here. Here is something that people said to me recently. This is a question for Mr. Sheets about swap lines, one of our favorite topics. Here is the statement: These swap lines are giving control of the U.S. monetary base to foreign governments, especially through persistent and large usage by the foreign central banks. I will stop on that one and see what you think about that.

MR. SHEETS. In each one of the disbursements under these lines, the Federal Reserve and the FOMC have the prerogative to determine whether or not it is in our interest to go forward with the swaps. So I think that we maintain a crucial governance role. If we come to the conclusion that at some point the costs of this program or the costs of extending that dollar liquidity outweigh the benefits, then we can start winding up the program. So I don't think that is right.

MR. BULLARD. So what is the magnitude right now of the swap lines that are outstanding?

MR. SHEETS. The total outstandings are around \$465 billion.

MR. BULLARD. Okay. So a scenario would be that you go over the next five years, with zero nominal interest rates and an ongoing financial crisis, and these things stay out there

because of needs for dollar funding in Europe. Now you had a permanent one-time increase of, say, \$500 billion in the monetary base. Isn't this what we are looking at?

MR. SHEETS. Well, for what it is worth, our forecasts of the European economy and European interest rates are not consistent with that scenario. Market expectations are not consistent with that scenario. I hope that is not what we are looking at.

MR. BULLARD. Okay. I am just trying to ask a series of provocative questions.

MR. SHEETS. You are doing a good job.

MR. BULLARD. Thank you. [Laughter]

MS. MOSSER. May I add one parenthetical point to that? The swaps—unlike the TALF, for example—are priced at a penalty to market rates, and to the extent that market spreads do come down, as we have seen in the past two months, swap lines do self-liquidate. They have declined very noticeably—they were nearly \$600 billion at one point. As the spreads come in, effectively the private sector comes in and undercuts the central bank, which was by design.

MR. BULLARD. Okay. Thank you. So now I am going to try to reconcile Presidents Lacker and Rosengren [laughter] and get your and our new Vice Chairman Dudley's reactions. My experience in economics is that it is not that helpful to talk about equilibrium and disequilibrium. So I am going to talk about it in a different way. You have firms and people who do the best they can, given the constraints that they face. There are frictions out there, and we know what the friction is here. It is a very severe information friction in certain financial markets. It is a crisis of financial engineering in which, when the new financial instruments were created, they were thought to be good devices, but they turned out to have serious transparency issues and that created information problems. So now you say that, given that friction, I am going to let everybody optimize. Jeff will say, well, that is a Pareto optimum given the friction

and, if there is nothing you can do about the friction, then that is the best you can do. But if there is some policy you can do to ameliorate the friction and pull that out, you will get a better solution. I would say that that is Mr. Dudley's position. The position that it is just technology and there is probably nothing we can do about the crisis in financial engineering would be the Lacker position. I was wondering if you guys would react to that and see if that reflects your views.

MR. LACKER. I will say "yes," [laughter] with the additional note that with that answer alone you might wonder why I get so exercised, but it is that withdrawing that friction does not seem to be what any of our programs have been designed to accomplish.

MR. BULLARD. Yes, and I agree with that. There seem to be a lot of things that are being done in many parts of the government and maybe parts of the Fed that are not really getting at that information friction. So I am going to ask the most provocative question of all. The Chairman said at the beginning that we should obviously be allergic to taking on credit risk, and normally, I think everyone here agrees with that. But maybe now is the time to rethink that. You have a serious information problem out there. You have a lot of reactions to that that are tangential to the core problem, and we are talking about doing open market operations, which used to be always in Treasuries, now in MBS. It would not be that hard to say let's just do the open market operation swap of money for a financial instrument using the toxic assets that are such a problem in this economy. Normally I would not say things like this, so I am stepping out of character. But in the interest of provoking discussion, maybe now is the time to at least start thinking about something like that. That would get to the heart of the matter. If you try to go through the Congress, they are wonderful people and everything, but the process gets politicized—and we know this; we are seeing that already—and so all kinds of other things get

done. This would get at the core of the problem. You would be taking on risk, but you take on some interest rate risk even when you buy Treasuries. The whole idea would be to price these at the right price, which I understand is very tricky, but who better to do it than the 500 economists that hang out at the Fed? So I don't know—should it necessarily be a 100 percent benchmark that we do not want to take on credit risk, or should it be only a 95 percent benchmark or something like that?

CHAIRMAN BERNANKE. Let me say something about these frictions and why we can affect them. There are two frictions that I think are important. One of them relates to the friction of illiquidity. It is a tradition of central banking that we lend against illiquid assets when there is a panic run, and we know that panic runs are equilibrium phenomena and they can occur even though the assets are worth more than the liabilities. I would argue that that kind of phenomenon has generalized into a lot of aspects of our economy—for example, the funding of various kinds of off-balance-sheet instruments, the commercial paper market, the money market mutual funds, and lots of other vehicles—and a lot of what we are doing is very much consistent in spirit with the idea of providing backup liquidity to allow firms to meet redemption demands without having to sell off assets into illiquid markets. I think that is the thrust of a lot of what we are trying to do.

The other type of friction that I think is important has to do with information capital. There is a sense in which the capital of the banking system is the most important wealth in the world because it supports the information gathering and other institutional activities that banks can do. When, for whatever reason, there is a loss of bank capital and their activities are restrained and they are not able to make full use of the information and other skills that they have; that is a problem. I would argue that in a world where there are other frictions—sticky

prices or wages, for example—the inability of the banks to fully use their information capital to extend credit and make loans and make markets will lead to a bad outcome for the economy as a whole. The intellectual argument then is that there is a social benefit, a social externality, to providing more capital, and that is what a lot of the TARP and these other things involve.

Now, traditionally in your comment about credit, it is not easy to make a clear distinction. There is always the issue of liquidity versus solvency and so on, but it is not easy to make a clear distinction between lending against solvent but illiquid assets versus providing capital for informationally intensive agents, like banks. So that line is not completely clear. But by history and tradition, the central bank has always leaned toward liquidity provision. The government has always leaned toward credit allocation. I think that is a distinction that is worth trying to preserve, although admittedly we are not always going to do it perfectly. So I think we can specify what the frictions are, make coherent sense of them, and try to explain how our actions are related to them.

MR. BULLARD. We do not want to maintain that if it is going to send us into an even more prolonged downturn. I mean, it might be nice if we always did liquidity and Treasury always did credit, but I am saying—

CHAIRMAN BERNANKE. Well, we have taken on credit risk in emergency situations, as you know. But as I promised at the beginning, I think to the extent that we can use the opportunity of a new Administration and so on to clarify responsibilities in a better way, then we ought to do so. I think we all appreciate what an extraordinary situation we are in and have experienced for the last eighteen months. A lot of what we are doing is requiring our good sense and historical knowledge and our intuition. But as I think maybe the Vice Chairman mentioned,

we do not really have the historical basis for all of the things that we are having to deal with here. President Lacker.

MR. LACKER. Mr. Chairman, thank you. That was a very clear and lucid description of what the core crystallized issues are regarding frictions—regarding the thing that in my fogged state I was not able to articulate to Vice Chairman Dudley a minute ago. This is what I think we have been struggling to get our hands around, and so I appreciate your clear articulation of that.

As you know, these are sort of classic problems in banking economics. About liquidity, I am struck by the hedge funds. To date as far as I know—maybe New York knows about one that is about to blow up—we have not been challenged by them. Here is a set of participants not viewed as likely to benefit from the safety net that, over the past couple of years, have structured their liabilities in a way that makes them relatively insulated from run-like phenomena. That illustrates the broader point about models of panic-stricken runs—the extent to which you issue a contract that makes you vulnerable to that is endogenous and leads me toward wondering if the safety net has really been what is driving the instances of run-like behavior not only in the banking system.

On informational capital, I think you are right on target there. Obviously, it was the subject of your very seminal research, inspiring to all of us. There I think about a lot of the pulling away—people taking their loan accounts—from Wachovia and Governor Duke's bank a year ago telling me that they were picking up customers that were uncomfortable working with Wachovia or B of A. Switching costs are there for sure. But I struggle with how hard they are and, again, appreciate that you have crystallized genuine scientific issues to clarify the discussion.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Well, I was just going to comment on Jeff's comment. I think the hedge fund industry for the most part has weathered this remarkably well, but of course, the five biggest hedge funds, Goldman, Merrill, et cetera, et cetera, are gone. What is left is a good deal smaller and presumably a lot less consequential than the ones we have seen.

Let me just add, Mr. Chairman, that I agree 100 percent with what you just said. We have long had a system in which the commercial banking system has been a backup source of liquidity to other financial institutions and the nonfinancial sector as well. For a variety of reasons, partially because of what has happened to capital and partially because the shadow banking system is growing so rapidly relative to the banking system, even though I would say banks in the aggregate are continuing to play that role, it has become increasingly difficult for them to function effectively as the backup source of liquidity. I think that is an important justification for the actions we have taken.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Just to respond, Jeff, to the comment that the hedge funds haven't faced a run-like phenomenon. One of my contact conversations with a hedge fund manager effectively said, "We are in a run. This period is a run." It is a run that has episodes at the end of quarters and so forth, so it operates a bit differently, but the effect is the same.

MR. LACKER. Well, if I could, Mr. Chairman, just to be clear—it is not that they are not subject to runs; it is that runs don't bring them down the way an institution like a classic bank in 1932 would have been brought down by a retail run.

CHAIRMAN BERNANKE. As you point out, an important point is that institutional structures, contracts, and so on are endogenous, and policy affects them. But we are in a situation at this point where past is past and what is sunk is sunk. We have to deal with the

situation. And it is very, very important for us to go forward to try to change the legal structure, the regulatory structure, and even Federal Reserve operating procedures in ways that will encourage more-stable systems in the future. But at the moment, the fire is burning, and we have to think about that.

MR. LACKER. If I could, that is a very important insight. It is part of the classic tension between healing now versus looking at what we are doing as part of a repeatable process from which people are going to be forming expectations about our future behavior. That is the inevitable tension.

CHAIRMAN BERNANKE. Yes, that is right. All right. Unless there is anyone else, let me thank you for a very useful discussion. I am sure that we will have more in the future, but this really sets the parameters and the issues. I took many things away from this discussion. One of them is that we need to keep thinking about our metrics regarding the efficiency and efficacy of our programs—in particular, how the shadow value of duration or illiquidity in our balance sheet is matched against the benefits of a particular program that has certain implications for our balance sheet. I would challenge the staff—as all the hard tasks go to the staff—to think more about how we can evaluate the efficacy of our programs, in particular, and the opportunity costs as well, in terms of the space they take up or the duration that we create in our balance sheet. One useful exercise that we ought to be thinking about is, if we were to go another step, where would it be and on what criteria would it be decided. That would perhaps answer the question about there being no plan, no control, and no delimiting factors. I think that we can make progress on trying to answer these questions. It is not going to happen immediately, but I hope over time it will help.

MR. LACKER. I have a request, Mr. Chairman. I asked the System Open Market Account manager a couple of days ago, but now he is not the manager anymore. [Laughter]

VICE CHAIRMAN DUDLEY. I did that on purpose.

MR. LACKER. You just didn't want to do it. Tomorrow or maybe today we will hear about a forecast for the path of the federal funds rate. In creating that, it is endogenous. It depends on the economy, but it also affects the economy. I was wondering if we could get one for our balance sheet, subject to uncertainty of all the obvious kinds. It would be useful to help us think about the capacity of programs and extending them. I think it would be useful.

CHAIRMAN BERNANKE. I agree with that, and I thought we would have done more of that today, in fact. But what we can do—and what we ought to think about for future reference—is maybe scenarios as opposed to forecasts. That might be a better way to think about it. President Plosser.

MR. PLOSSER. I was going to ask exactly the same question. So thank you.

CHAIRMAN BERNANKE. All right. If we are ready, we still have some votes to take here. Let me first ask the FOMC to do the routine ratification of domestic open market operations. Do I have a motion?

MR. KOHN. So move.

CHAIRMAN BERNANKE. Any discussion? All in favor?

PARTICIPANTS. Aye.

CHAIRMAN BERNANKE. Opposed? Hearing no objection, thank you. All right. Now, to approve the extension of the programs, I would like to propose that we extend the list of programs through October 30, as proposed by the staff. We should have some discussion about the AMLF and others, recognizing that, even if we announce an extension, rationalization down

the road or restructuring is always a possibility. So this would be a motion for the Board to extend the 13(3) programs.

MR. KOHN. So move.

CHAIRMAN BERNANKE. All Board members okay with this? All right. Hearing no objection, thank you. We need from the FOMC a resolution to extend the swap arrangements through October 30. A motion?

MR. KOHN. So move.

CHAIRMAN BERNANKE. Further comments or discussion? Any? All right. Any objections? Not hearing any objections, the motion is approved. We need a separate resolution from the FOMC to extend the TSLF through October 30. Motion?

MR. KOHN. So move.

CHAIRMAN BERNANKE. Any concerns, objections, or comments? Hearing no objections, thank you. All right. Let me remind you again that this is all confidential until Thursday morning because we want to coordinate our announcements with other central banks, and we will take the opportunity to at least look at the two programs that President Plosser mentioned.

Let me turn now to the economic situation. Boy, I think it has been a while since we were three and a half hours into the meeting before we got to the staff forecast.

MR. STOCKTON. The GDP is a little smaller than it was at the start of the meeting.

[Laughter]

CHAIRMAN BERNANKE. Actually I do not want to give President Lacker any concerns about whom he is listening to. So I want to introduce Dan Sichel, Karen Dynan, and Trevor Reeve, who will be presenting the outlook. Dan.

MR. SICHEL.<sup>2</sup> Thank you, Mr. Chairman. I'll be referring to the material labeled "Staff Presentation on the Economic Outlook." The incoming data largely have ratified the bleak near-term outlook we projected in the December Greenbook; the spending data have painted a gloomy picture, and readings on employment and production were even weaker than we had expected. Starting first with the employment data, the top left panel of exhibit 1 shows the dramatic worsening of the labor market in recent months. Private payrolls declined almost 520,000 per month on average in the fourth quarter. The panel to the right shows manufacturing industrial production excluding motor vehicles. Factory output has been plummeting as manufacturers are responding aggressively to declines in both domestic and foreign demand. The motor vehicle sector has been hit particularly hard. With extremely sluggish sales, automakers have been slashing production—plotted in the middle left panel—and we anticipate a sizable further reduction in assemblies this quarter.

Turning to households, the latest data confirm that consumers continue to retrench. As shown by the blue bars, real PCE for goods other than motor vehicles appears headed for a very large drop in the fourth quarter, and we anticipate a further decline this quarter. These projections are similar to those in the last Greenbook. In the housing sector, starts (the black line in the bottom left panel) declined further last month and now are less than one-quarter of their peak level in 2006. With the level of permits (the red line) still below starts, we expect further declines in starts in the next few months. All told, as shown to the right, we project that real GDP contracted at an annual rate of about 5 percent last quarter. Given the greater weakness in the employment and production data, we have lowered our forecast for the first-quarter change in real GDP to minus 5½ percent. In the second quarter, the rate of decline in real GDP moderates as the new fiscal package—discussed more in a minute—boosts demand.

The top left panel of exhibit 2 summarizes the medium-term outlook for real activity. We anticipate that recovery will begin, albeit slowly, in the second half of this year, with real GDP projected to increase at an annual rate of about 2 percent; next year, output is expected to rise about 2½ percent. The box to the right lists key factors contributing to the onset of recovery: Financial stress begins to recede, housing begins to stabilize, monetary and fiscal stimulus provide a boost to demand, and inventory liquidation comes to an end. Regarding fiscal stimulus, although the precise composition of what will be passed remains a moving target, we now assume a package of \$800 billion, \$300 billion more than what we penciled into the December Greenbook. The larger size of the package is an important source of our slightly stronger outlook for economic growth than in the last Greenbook. The bullets in the middle left panel highlight our estimates of the response to the various provisions of the plan. Households begin spending the tax cuts of \$180 billion and transfers of \$90 billion when received. On the other hand, we expect the investment response to the business tax cuts to be limited. In addition, of the total new funding for state and local governments, we project that only 40 percent will be spent by the

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<sup>2</sup> The materials used by Mr. Sichel, Ms. Dynan, and Mr. Reeve are appended to this transcript (appendix 2).

end of 2010 as infrastructure projects take some time to get under way and as the spending of other grants is smoothed out somewhat.

The panel to the right puts the pieces together. We estimate that the fiscal package will boost real GDP growth by a bit less than 1½ percentage points this year and almost 1 percentage point next year. Our estimates of the GDP effects are smaller than those of some other analysts, with the discrepancy mostly reflecting our assumption of slower spend-out rates by state and local governments. Inventory dynamics—the subject of the bottom panels—are another element importantly shaping the recession and recovery. The table in the bottom left reports the contributions of inventories to real GDP growth in key periods over the business cycle. The first column shows the contributions in the current episode, and the second column shows averages for the postwar period. As can be seen on line 1, in the year before the peak in real GDP in 2008:Q2, inventories were already being liquidated aggressively, in contrast to the usual positive contribution. As shown on line 2 of the table, from the peak to the trough, inventories hold down real GDP growth only a little. Because inventory liquidation was already quite rapid before the peak, once the contraction in sales got under way, the rate of liquidation needed to steepen only a bit more. In contrast, during many past episodes, the drag from inventories was much larger as manufacturers had to play catch-up once sales turned down. In the year after the trough (line 3 of the table) liquidation comes to an end, and the swing in inventories boosts real GDP growth 1 percentage point, about in line with historical averages. This increase in the inventory contribution is an important feature of the projected recovery in real GDP. Karen will now discuss developments shaping the outlook for households and businesses.

MS. DYNAN. Exhibit 3 covers the housing sector. As can be seen in the top left panel, our forecast calls for single-family housing starts to bottom out in the first half of this year and to move up gradually thereafter. One factor behind the projected improvement in housing demand is the interest rate on 30-year fixed-rate conforming mortgages, shown in the top right panel. This rate fell sharply following the November 25 announcement of the Federal Reserve's MBS purchase program, and we expect it to remain low over the next two years.

That said, our projected pickup in housing activity is quite modest, as mortgage credit remains more difficult and more expensive to obtain than might be implied by the conforming mortgage rate alone. As summarized in the middle left panel, the disappearance of nonprime mortgages from private sources makes it much more difficult to obtain mortgages for households lacking solid credit histories, unable to make significant down payments, or in need of low introductory interest rates. Part of the gap has been filled by an increase in originations associated with Federal Housing Administration programs, but such originations remain far below the level of private nonprime originations at their peak. In addition, lending is now more restrictive than in the past to those seeking to finance an amount above the conforming limit.

Housing demand is likely also being damped by an expectation that house prices have not reached their trough. We project that house prices will decline significantly further before flattening out at the end of 2010. As shown in the middle right panel, this decline pushes one measure of the overvaluation of housing that we monitor well into negative territory. Prices typically overcorrect at the end of housing cycles, but this correction is amplified by the extent of the earlier overvaluation and by the excess supply of unsold new and existing homes that we foresee over the forecast period.

The bottom left panel shows one implication of the bust in house prices—a rise in the share of prime and subprime mortgages with low current equity. As shown on lines 1 and 2, the recent declines in house prices have led to considerable increases in the shares of mortgages with equity below 20 percent. Moreover, as indicated on lines 3 and 4, the share with negative equity has also increased rapidly. These low levels of home equity, along with greater job losses, have pushed foreclosures—shown in the bottom right panel—to very high levels. In 2008, lenders initiated more than twice as many foreclosures as in 2006. Notwithstanding the government foreclosure mitigation efforts embedded in our forecast, we expect prime foreclosures (the red portions of the bars) to remain high this year before diminishing somewhat in 2010. Subprime foreclosures (the blue portions) are projected to show a more pronounced decline largely because the stock of outstanding subprime loans is shrinking in response to the cessation of new loans and the termination, through default or refinancing, of existing loans.

Exhibit 4 features our outlook for consumer spending. Real disposable personal income (the blue bars in the top left panel) fell in the second half of last year, but real consumer spending (in red) declined even more sharply. Disposable income is projected to step up early this year as a result of the sizable personal tax cuts and increases in transfer spending built into our forecast. Despite the support from fiscal measures, consumer spending is projected to increase only weakly this year and moderately next year. The saving rate (the black line in the panel at the right) is projected to move up sharply in early 2009 as the tax cuts are only gradually spent. We expect saving to remain elevated over the next two years, in part because of the sharp drop in household wealth relative to income (the red line) and because of households' greater uncertainty about their income prospects. We think that spending will be damped in coming quarters as well by difficult borrowing conditions. The middle left panel shows two important sources of the credit available to finance consumer spending. The blue portions of the bars correspond to housing equity tapped through home equity loans and cash-out refinancings; surveys suggest that households traditionally put perhaps one-fifth of such funds toward consumer purchases. As can be seen, mortgage equity withdrawal declined sharply last year. Consumer credit (the red portions of the bars) also fell off over the year, turning negative by the fourth quarter.

The declines in household borrowing reflect, to some extent, reduced demand for loans, as the weaker economy has led households to defer spending. However, as

illustrated in the middle right panel, a reduction in supply is clearly playing a role as well, with banks continuing to tighten standards on consumer loans. Developments in the consumer ABS market are contributing to the tighter credit conditions for households. The market has seen very little issuance since October, and spreads have been very high. The commercial banks that make most credit card loans have access to alternative sources of funding, such as deposits and various new forms of support from the government. In contrast, the finance companies affiliated with auto manufacturers, which traditionally have been an important source of auto loans have not (for the most part) had access to these alternative sources. The bottom right panel shows the dollar volume of new loans per vehicle sold—one metric of the extent to which the finance companies support sales. This indicator had been fluctuating around \$5,000 per vehicle, but dropped to less than \$3,500 in November. That said, loan originations should pick up this year, with the expected implementation of the TALF, and GMAC, now a bank holding company, having announced that it will resume lending to some consumers with weaker credit records.

The next two exhibits focus on business investment and finance. The top left panel of exhibit 5 depicts a key underpinning of our investment forecast—the accelerator mechanism. Business fixed investment as a share of output (shown in red) tends to track the lagged growth rate of output (in black). The sharp deceleration that we have seen in output is expected to exert a significant drag on investment this year and next. Indeed, as shown by the red bars in the panel to the right, we estimate that business spending on equipment and software fell nearly 10 percent last year, and we project it to decline by an even larger amount this year before making a moderate recovery in 2010. Investment in nonresidential structures held up better in 2008, but we expect a sharp decline this year and a further decline in 2010, due in part to the lags in planning and implementing new structures projects.

Spending in the business sector is also held down by credit market conditions. Firms are finding credit expensive and more difficult to obtain because investors are demanding extremely high returns for holding risky assets. In the stock market, the dramatic decline in equity values over the past year has pushed the trend earnings-to-price ratio (the red line in the middle left panel) well above the range seen over the past quarter century. The gap between this ratio and the real Treasury perpetuity yield (shaded in turquoise in the left panel and plotted as a line on the right) is a rough measure of the equity risk premium. At more than 10 percentage points, the gap is extraordinarily high by historical standards. Spreads on corporate bonds are also extremely elevated, keeping yields relatively high despite substantial declines in long-term risk-free rates. As can be seen in the bottom left panel, yields on 10-year BBB-rated bonds have fallen since the December FOMC meeting but remain at the high end of their range since 2002. That said, issuance of nonfinancial investment-grade bonds, shown in the inset box, moved up in the fourth quarter and has held up in at a solid pace in January. Yields on speculative-grade bonds, shown in the bottom right panel, also remain unusually high, and speculative-grade issuance, though up somewhat in January, is still fairly weak.

C&I loans from commercial banks represent another important source of funding for businesses. As shown in the top left panel of exhibit 6, C&I lending fell off sharply at the end of last year, and we expect it to remain weak this year. We believe that the downswing partly reflected reduced demand for loans as businesses trimmed plans to invest and, after relying heavily on bank lines while credit markets were disrupted in the fall, turned back to other sources of funds, such as corporate bonds. However, the supply of credit has also been reduced. As shown in the top right panel, most of the senior loan officers we just surveyed reported having tightened standards on C&I loans further and having increased the spreads of loan rates over their cost of funds.

The next four panels turn to some of the factors that have exacerbated the credit problems in the commercial real estate sector. As can be seen in the middle left panel, rents (the red line) have decelerated sharply over the past two years, and vacancy rates (the black line) are on the rise. Prices for commercial properties, shown on the right, turned down sharply in late 2007 after soaring over the preceding three years. Our forecast calls for a significant further price decline. These weaker conditions have contributed to rising delinquencies among commercial real estate loans, as seen in the bottom left panel. The delinquency rate on such loans held by commercial banks (the turquoise line) climbed further in the third quarter. As shown in red, the delinquency rate on loans in commercial-mortgage-backed securities (or CMBS) has been rising as well. The box to the right summarizes key implications of the shutdown in the CMBS market. Although the market traditionally has provided very little construction financing, the inability to issue should add to the pressures on banks' balance sheets and thereby indirectly damp structures spending. In particular, if it remains closed, the CMBS market will not be able to help refinance the large amount of bank construction loans expected to come due this year, as it would in normal times. In addition, a smaller amount of loans currently within CMBS will come due this year and will need new financing from alternative sources such as banks. Dan will pick up the discussion from here.

MR. SICHEL. The top left panel of exhibit 7 provides some longer-term context for the deep recession and sluggish recovery that we are projecting. The red line shows the level of real GDP, indexed to its own peak in the second quarter of last year. By way of comparison, the green and blue lines show the paths of real GDP during the recessions that started in 1973 and 1981, respectively. As noted to the right, the projected contraction in real GDP in the current episode is broadly in line with those two earlier big postwar recessions, but the projected recovery is noticeably more sluggish. In part, this pattern reflects the influence of financial turmoil on the macroeconomy.

Gauging the hit to the economy from the recent financial stress is, to put it mildly, an inexact science. One benchmark is the typical pattern experienced by economies during and after the onset of financial crises. As noted in the bullets in the middle left panel, research on this topic—most notably the work by Carmen Reinhart and Ken Rogoff—indicates that downturns linked to major financial crises in

advanced economies tend to be severe. Reinhart and Rogoff identify five major financial crises in advanced economies in the postwar period; these include Spain in 1977, Norway in 1987, Finland and Sweden in 1991, and Japan in 1992. The panel to the right shows one possible metric for gauging the magnitude of output loss in these episodes. The first blue bar shows average growth in real GDP in these five countries during the four years prior to the crisis. The red bar shows average growth in the worst two consecutive years after the onset of the crisis. The average step-down in real GDP growth after these financial crises was about 5 percentage points. The right-hand side of the bar chart shows figures for the current episode in the United States. The blue bar shows average growth in the four years before 2007, the date used as the onset of the crisis. The red bar shows our projection for average growth in the worst two years following the onset, 2008 and 2009. On this metric, we are projecting a pattern similar to, though not as severe, as these other episodes. Still, we see the evidence from past financial crises as suggesting that the risks to activity are tilted to the downside.

The bottom three panels highlight the alternative simulation in the Greenbook that explores that possibility. As you know, in the baseline forecast we anticipate that financial market strains will gradually wane over the next two years. In contrast, in the “more financial stress” scenario, we assume that risk premiums on a variety of securities move up significantly from their current levels and then come down more slowly than in the baseline. As shown to the left, real GDP in this scenario contracts considerably in 2009 and increases only a little in 2010. The unemployment rate (the middle panel) peaks at 9¼ percent, and core inflation (the panel on the right) moves below zero.

The top panels of exhibit 8 examine the cyclical properties of labor productivity, plotting the level around the staff’s estimate of trend. As noted in the first bullet in the middle left panel, in some earlier recessions—such as those that started in 1973 and in 1981—labor productivity was pro-cyclical. That is, labor productivity fell below trend during the recession—likely reflecting some labor hoarding—and then rose fairly quickly thereafter. During the 1990 recession this pattern was barely evident, while it was not observed at all during the 2001 recession. In the current episode, shown in the top right with a magnified scale, we expect that labor productivity will exhibit a mild pro-cyclical pattern. With this recession anticipated to be quite deep, we expect many businesses to find that deeper job cuts would require shedding core personnel, leading to some labor hoarding in the near term. Later this year, firms in recovering sectors expand production without initially adding to payrolls. Accordingly, job losses in the private sector continue in the second half, and the unemployment rate (the black line in the middle right panel) rises further. Given the additional near-term weakness in our outlook for activity, the unemployment rate now is expected to peak at 8½ percent early next year, a bit higher than in the last Greenbook. This slack in resource utilization puts considerable downward pressure on inflation. In addition, the sharp drop in energy prices (the bottom left panel), along with declines in import and commodity prices, also restrains our forecast of core inflation. As shown to the right on line 3 in the table, we project

that these factors will push core PCE inflation down to 1 percent this year and to 0.8 percent next year. With the decline in energy prices, total PCE inflation (line 1) dips a little below core this year but then rises a little above core next year as energy prices increase a bit.

Shifting gears, exhibit 9 reprises material from the pre-FOMC briefing that Bob Tetlow delivered yesterday; it takes a closer look at an unconventional policy action included as an alternative simulation in the Greenbook. As you know, in our baseline scenario, the zero lower bound constraint on the federal funds rate is binding until 2013. This constraint partly explains our pessimistic baseline forecasts for unemployment and inflation, which are shown as the black lines in the panels at the top of the exhibit. We can demonstrate the implications of the lower-bound constraint for the economic outlook using an unconstrained optimal control simulation, much like the one you saw in the December Bluebook, which would prescribe lowering the funds rate to about negative 4¼ percent by the end of this year. The effects of such a monetary policy, if it were feasible, are shown by the green lines in the panels. As you can see in the top left panel, by 2011 the unemployment rate would be more than 1 percentage point below the baseline path, and the top right panel shows that inflation would be ¾ percentage point above baseline at that point.

A large-scale asset purchase program—or LSAP program, for short—of mortgage-backed securities and longer-term Treasury securities is one of a variety of the unconventional monetary policies that could, in principle, combat this problem. The efficacy of such a program depends on several assumptions, summarized in the middle left panel. First, these assets must be imperfect substitutes for short-term debt—an assumption most economists would find reasonable; otherwise, actions intended to affect their returns could be undone through arbitrage with short-term securities. Second, Treasury bonds and MBS must remain good substitutes for other types of long-term debt, as they are thought to be under normal conditions, so that reductions in yields on the targeted securities spill over to other private interest rates. Third, movements in long-term rates should ideally continue to favorably influence stock prices, the exchange rate, and other financial markets, thereby boosting the program's stimulative effect. As noted in the middle right panel, the LSAP program we used for the alternative simulation assumes purchasing \$500 billion in Treasury securities as well as further purchases of \$500 billion in agency MBS beyond those already announced. These purchases are assumed to be carried out over the next year and a half and are eventually unwound over 2012 and 2013. As indicated by the next set of bullets, we assume that these purchases reduce various long-term interest rates between 75 and 125 basis points over the next few months; these estimated effects are consistent with the analysis in the notes completed in December that dealt with various zero lower bound issues. Using these estimates, the macroeconomic effects of the program are shown by the red lines in the panels at the top. According to the FRB/US model, the unemployment rate follows a path only modestly above the theoretical unconstrained optimum, and inflation is closer to the unconstrained trajectory. Moreover, the federal funds rate (not shown) rises above the lower bound at the beginning of 2012, one year earlier than in the baseline projection.

The potential benefits of this particular LSAP program notwithstanding, some important caveats are laid out in the bottom panel. On the financial end, the direct interest rate effects of the program are highly uncertain, if only because we have so little experience with this sort of program. Second, the current dysfunction in some financial markets could limit the magnitude of indirect effects—that is, the spillovers into markets other than those in which purchase activity takes place. Third, the size of the program may be subject to economies—or dis-economies—of scale. Fourth, LSAP programs, and unconventional policies more generally, introduce tricky “exit issues” regarding how to unwind the program without disrupting markets, incurring large losses on the Federal Reserve’s portfolio, or sparking a longer-run inflation problem. Regarding macroeconomic issues, with credit availability so constrained at the moment and uncertainty so high, the model may understate—or overstate—the size of the response of consumption and investment to changes in financial conditions of a given magnitude. In addition, possible heavy reliance on mortgage rates and housing to drive economic recovery entails some risks, particularly if spillovers from mortgage rates into other asset prices are limited. All told, as this discussion makes clear, some significant potential benefits and costs need to be weighed when considering the possible implementation of large-scale asset purchase programs. Trevor will now continue the presentation.

MR. REEVE. As shown in the top left panel of your first international exhibit, equity prices in the advanced foreign and emerging-market economies have turned down over the past couple of weeks amid very gloomy economic indicators and intensified concerns about financial institutions. Bank stock prices, in the next panel, have been especially hard hit. As Trish and Spence noted earlier, strains in interbank funding markets have eased on balance since your last meeting, despite deepening concerns about the banking sector. As shown in the middle left panel, three-month LIBOR–OIS spreads have continued their gradual descent. Demand for dollar funding abroad appears to have eased following the turn of the year, as evidenced by recent declines in outstanding draws from central bank liquidity swap facilities. With a good chunk of these swaps currently having an original maturity of three months, it will take some time for these draws to roll off even if funding pressures ease further.

In foreign exchange markets (the bottom panels), the dollar dropped sharply following the December cut in the federal funds rate target. But since that time, as it has become increasingly clear that deteriorating conditions would lead foreign central banks also to ease policy further, the dollar has reversed course and has appreciated slightly on net over the intermeeting period. As shown in the bottom right, we continue to project a modest depreciation of the dollar over the next couple of years, but this reverses only a little of the late-2008 appreciation.

The table at the top of your next exhibit summarizes our outlook for foreign growth. As shown on line 1, we estimate that total foreign GDP contracted at a pace of 3¾ percent in the fourth quarter, the weakest quarterly reading in our thirty-eight-year history of this series. We expect foreign output to fall sharply again in the

current quarter. These figures are considerably weaker than in the December projection, as incoming data, which we had expected to be grim, nonetheless surprised us on the downside. We continue to project foreign GDP to stabilize toward the middle of the year and then to begin to recover as financial conditions gradually improve, fiscal and monetary stimulus supports activity, and the U.S. economy regains its footing. Of course, there are downside risks to this view, and data received in the past few days suggest that we may make additional downward revisions to our near-term outlook. One of the most striking recent developments has been the very sharp drop in global manufacturing and international trade, as shown by the plummeting purchasing managers indexes in the middle left panel. As manufacturing is pro-cyclical, steep declines in output and trade should be expected given the broader downturn. That said, for many countries the recent movements have been breathtaking.

The Japanese economy has been particularly hard hit. As shown in the middle right panel, real exports have plummeted with the decline in foreign demand and the appreciation of the yen. Real household spending, while far from a source of strength, has held up better. As shown on line 4 of the table, we estimate that Japanese GDP contracted at a 5¼ percent pace in the fourth quarter and expect that GDP will keep shrinking until late this year. The euro area (line 5) is not faring much better, with GDP contracting at a 2 percent pace in the fourth and first quarters. As shown on the bottom left, industrial production in the euro area, as elsewhere, has fallen sharply. Retail sales have slumped but have not collapsed. The emerging Asian economies (line 9) are taking a severe beating, with output contracting at a 6½ percent pace in the fourth quarter amid widespread declines in exports. Real GDP in Korea and Singapore (not shown) plunged 21 percent and 16 percent, respectively, and growth in China (line 10) came to a standstill. As indicated in the bottom right panel, continued strength in Chinese retail sales has countered some of the weakness in external demand, but growth in industrial production has fallen considerably. With Chinese authorities taking strong measures to support the economy, we see growth strengthening in the quarters ahead but remaining well below the 10 percent average over the past decade.

The weakness in the U.S. and foreign economies has shown through to U.S. trade flows, the subject of your next exhibit. As shown by the green line in the first panel, our exports have dropped sharply. Imports, however, have dropped even more, leading to a marked narrowing of the trade deficit in November, as indicated to the right. Much of this narrowing is attributable to the value of oil imports, which has plummeted with the fall in oil prices. As shown on the middle left, imports have also been held down by the decline in motor vehicle sales, which has led to a sharp slide in automotive imports. Although we expect overall imports and exports to continue to fall in the current quarter (as indicated by the dots), the drop in exports is tempered somewhat by a projected rebound in aircraft exports. As shown in the middle right, last autumn's strike at Boeing and subsequent production delays resulted in a notable drop in aircraft exports, which should be reversed. As shown on line 1 of the table, we estimate that real exports plummeted at a 20 percent pace in the fourth quarter, a

much steeper rate of decline than previously projected and a very sharp reversal from the strong performance seen earlier in the year. Our markdown to real import growth has been nearly as large, resulting in a contribution of net exports to GDP (line 3) that is down only about  $\frac{1}{2}$  percentage point in the fourth quarter from our December projection, bringing it close to zero. We see trade continuing to contract in the current quarter; but with the fall in imports exceeding that for exports, the net contribution is projected to be positive. Thereafter, however, the contribution of net exports turns negative.

Your next exhibit provides some historical context for this projection. As shown by the red line in the top panel, the downturn in foreign growth that we anticipate is similar in magnitude to the 1982 and 2001 episodes but is somewhat more persistent. As shown by the solid red bars in the middle panel, exports subtracted about 1 percentage point from U.S. GDP growth in 1982 and 2001. Thus far in the current episode, however, the contribution of exports to GDP is less negative, as the plunge in exports at the end of last year followed robust growth in previous quarters. One key difference in the current recession is the real value of the dollar. As shown in the bottom panel, the dollar was relatively strong and on an upward trajectory heading into the 1982 and 2001 downturns, providing additional restraint to exports. Leading into the recent period, in contrast, the dollar was notably weaker and thus provided a boost to exports. But with the dollar recently taking back some of its previous decline and with foreign demand remaining depressed, exports are projected to decline again this year, marking the first two-year consecutive decline in 50 years.

Your next exhibit turns to commodity prices. As shown in the first panel, oil and other commodity prices have plunged from their July peaks. These dramatic movements have led some observers to conclude that speculators played a key role in these price dynamics, particularly for oil. Evidence for this hypothesis, however, remains elusive. As shown in the top right, the two main villains in this story, noncommercial traders (mainly hedge funds) and index investors, were reducing their exposure to crude oil over the first half of 2008, when oil prices were surging. Over the past couple of months, noncommercial traders have rebuilt their positions, even as oil prices have continued to decline. Moreover, the pattern of observed inventories is not consistent with the speculation hypothesis. As shown in the middle left, U.S. crude oil inventories declined well below typical levels as prices were rising and hit a low right as the oil price peaked. Since then, inventories have moved up sharply, reflecting the collapse in oil demand. As shown to the right, the growth of world oil demand turned negative around the middle of last year. Emerging-market demand decelerated sharply late in the year, leading to the biggest annual decline in global oil use since the early 1980s. In response to the downturn in demand, OPEC has announced several production cuts in an effort to support prices. As indicated on the bottom left, OPEC production (the red line) moved lower in the second half of last year and will fall considerably further if the cartel complies with its January target. These production cuts are unlikely to lead to a quick turnaround in oil prices given the large shock to demand. But over time (as shown on the bottom right), lower production along with firming demand should contribute to higher oil prices, as

reflected in futures market quotes and our projections. Nonfuel commodity prices are also expected to move up going forward, albeit more slowly than oil prices.

Commodity price fluctuations have been a key driver of broader price movements. As shown in the top left panel of your next exhibit, we project consumer price inflation in the advanced foreign economies to continue to drop sharply from elevated levels, largely reflecting swings in food and energy prices, although increasing slack also plays a role. As shown in the middle left, inflation excluding food and energy in the advanced foreign economies has moved in a much narrower range. At this point, the risks of a prolonged period of deflation appear small for these economies, with Japan being the clear exception. As shown below, the central banks of the advanced foreign economies have cut policy rates sharply in recent months, and we expect a little additional easing going forward. Inflationary pressures have also diminished sharply for the emerging Asian economies, as shown in the middle right. For Latin America, however, inflation has remained elevated, partly as a result of currency depreciation. Consequently, monetary authorities have been reluctant to ease policy while inflation concerns persist. Within the past two weeks, however, both Brazil and Mexico have begun to lower policy rates, and we expect additional easing in the coming months. Brian will now continue our presentation.

MR. MADIGAN.<sup>3</sup> I will be referring to the separate package labeled “Material for Briefing on FOMC Participants’ Economic Projections.” Exhibit 1 depicts the central tendencies and ranges of your current forecasts for 2009 to 2011 and over the longer run, following the integrated approach to the inclusion of longer-run projections that was recommended by the Subcommittee on Communications and discussed at the December FOMC meeting. The likely severity of the current recession is clearly evident in this exhibit: Nearly all of you expect real GDP to shrink this year, the unemployment rate to climb to at least 8½ percent by the fourth quarter, and total PCE inflation to be less than 1 percent on a fourth-quarter over fourth-quarter basis. This figure also highlights your expectations that a period of three years is likely to be insufficient for the economy to return to a balanced-growth path following the current economic shock. Indeed, although the benchmark horizon for the longer-run projections was specified as about five to six years, several of you noted that the convergence process might well take even longer than that.

Exhibit 2 tabulates the central tendencies and ranges of your latest projections; corresponding information about the Committee’s previous projections—those from last October—is indicated in italics, and Greenbook projections are included as a memo item. As shown in the left column of the top panel, your forecasts for real GDP growth in 2009 have a central tendency of minus 1¼ to minus ½ percent, as most of you expect output to contract further during the first half of this year—at an annual rate of about 3 to 4 percent—before resuming positive growth, albeit at a low rate, during the second half. Moreover, you generally anticipate a relatively sluggish recovery that reflects the gradual waning of financial stresses, continued weakness in the housing sector, and poor growth prospects abroad. As a result, most of you see

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<sup>3</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 3).

GDP growth as only gradually reaching a faster pace that eventually brings the economy back to its balanced-growth path. Nearly all of you estimate that real GDP will grow over the longer run (the right-hand column) at an annual rate of  $2\frac{1}{2}$  to  $2\frac{3}{4}$  percent. The central tendency of these longer-run growth projections is the same as for the trial run that was conducted last October.

As shown in the second panel, your forecasts of the unemployment rate in the fourth quarter of 2009 fall in a range of 8 to  $9\frac{1}{4}$  percent, more than a percentage point higher than for the projections that you made last October. In explaining these revisions to your near-term outlook, many of you pointed to the weakness of incoming data on consumer spending and labor market conditions and to the rapid slowdown in global economic activity. Your unemployment projections further ahead also underscore the anticipated slow pace of recovery: Most of you expect that, even in 2011, the unemployment rate will be about  $6\frac{3}{4}$  to  $7\frac{1}{2}$  percent, well above your estimates of about  $4\frac{3}{4}$  to 5 percent for the unemployment rate that will prevail over the longer run in the absence of further shocks. Your longer-run projections for the unemployment rate have the same central tendency as in October.

Your forecasts for inflation in 2009 have also shifted markedly since last October. Your forecasts for overall PCE inflation in 2009 (the first column of the third panel) now have a central tendency of 0.3 to 1 percent, a full percentage point lower than the central tendency of your October projections; and most of you now expect a core PCE inflation rate of about 1 percent this year (the first column of the bottom panel), compared with the central tendency of  $1\frac{1}{2}$  to 2 percent for your October projections.

Looking further ahead, the width of the central tendencies and ranges of your inflation projections has increased considerably. For example, the range of your overall PCE inflation projections for 2011 spans an interval of nearly 2 percentage points—about twice as wide as the range of your projections last October. From your accompanying narratives, it is evident that these differences reflect the diversity of your views about the pace of economic recovery, the sensitivity of inflation to economic activity, the prevalence of downward nominal wage rigidity, and the degree to which you see longer-run inflation expectations as likely to remain firmly anchored over the next several years. Many of you anticipate that inflation in 2011 will still be well below your individual assessments of the mandate-consistent inflation rate—that is, the longer-run rate of inflation that each of you sees as most consistent with the Federal Reserve's dual mandate for promoting price stability and maximum employment. Your assessments of the mandate-consistent inflation rate have a central tendency of about  $1\frac{3}{4}$  to 2 percent and a range of  $1\frac{1}{2}$  to 2 percent. This central tendency is noticeably higher than in October; at that time, your assessments were tightly clustered around a value of  $1\frac{3}{4}$  percent, whereas 2 percent is now the median and the mode of the distribution.

In your forecast submissions, many of you indicated that your views regarding the appropriate path of monetary policy are roughly similar to those of the Greenbook, which assumes that the federal funds rate will remain close to the zero bound through

late 2012. However, a number of you noted that policy tightening would commence somewhat sooner than that, and a couple of you expressed the view that the federal funds rate will need to be raised substantially above current levels during the second half of this year.

Exhibit 3 presents your views on the risks and uncertainties in the outlook. As shown in the top left-hand panel, all of you see uncertainty about growth as elevated relative to historical norms; and as shown to the right, most of you continue to perceive the risks to growth as weighted to the downside, even with the downward revision in your modal projections. In the accompanying narratives, many of you emphasized the uncertainties in gauging the evolution and implications of the global financial turmoil, the effects of nontraditional monetary policy tools, and the size and effect of the fiscal stimulus package.

As shown in the bottom left-hand panel, nearly all of you see an elevated degree of uncertainty about the inflation outlook. As shown to the right, a majority view the risks to that outlook as roughly balanced, whereas the rest of you see the risks as tilted to the downside. Some of you noted that the degree of uncertainty about the inflation outlook reflects uncertainty about the evolution of resource slack and the path of commodity prices, which are highly sensitive to global economic conditions. Others mentioned that the risks to the inflation outlook could eventually become tilted to the upside if stimulative policy measures are not unwound in a timely fashion once the economy begins to recover.

As you know, your agenda reserves time for a decision tomorrow as to whether to proceed with regular publication of longer-run projections. You may wish to indicate your general views on that issue in the economic go-round. As usual, the staff will be preparing a Summary of Economic Projections (SEP) and will be circulating drafts to you over the next few weeks along with drafts of the minutes. Should you decide to proceed with longer-term projections, these projections from this cycle would be included in the SEP to be released along with the minutes of this meeting in mid-February. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Do we have questions for the staff? President Plosser.

MR. PLOSSER. I have a few questions, two really short ones—just clarifying ones—and two longer ones. On the presentation, I have a question on exhibit 7, the recovery across different recessions. I note that you say you started it at the second quarter of '08 as being the trough. Everything else starts that at the NBER trough, which would have been the fourth quarter of '07. Why did you do that and not do it elsewhere? Is there any reason for it?

MR. SICHEL. You could do these types of cyclical comparison charts either way, dating from the NBER peak or dating from the series-specific peak. What is done here is to index to the series-specific peak so that you look at each of the path cycles and say when GDP turned down in that cycle. In many cycles, that is the same as the NBER peak, but in some cycles it is not. In this cycle, in particular, it came a couple of quarters later. You could do it the other way—in which case you would see the red line rising first and then coming down. It is just a different way of presenting the same information.

MR. PLOSSER. I was just curious what the rationale for using that peak in some cases, but in other parts of the presentation you used the fourth quarter.

MR. SICHEL. Arguably, it really just comes down to that it is a different way of presenting the same information. You get a cleaner comparison because every business cycle has some unique features and the timing differs in some particular ways. This is trying to abstract from those differences in timing. But one could do it the other way.

MR. PLOSSER. The second clarifying question—I'm curious about tightening standards on consumer loans, particularly credit cards, in exhibit 4. When you asked a banker in the survey about tightening credit card lending, how am I supposed to interpret that? Does that mean that they have reduced physically or technically the credit limits on credit cards? Does it mean that they are offering fewer credit cards?

MS. DYNAN. Brian can correct me if I am wrong, but I believe it is more the latter—offering fewer credit cards.

MR. PLOSSER. It has been great that I get much fewer requests to apply for credit cards. [Laughter]

MS. DYNAN. We have asked separately about what they are doing to credit lines. In fact, more than half are saying that they are reducing credit lines as well.

MR. PLOSSER. I guess the issue there for me is, if they are reducing excess credit lines—for example, on credit cards that were not being exercised anyway—or just not offering as many cards, how I interpret that in terms of really tightening credit is a bit loose there compared with some other things. So I just wanted some clarification.

Now, I have two more-substantive questions. First, about inflation forecasting: The best way I can describe forecasting in this environment is guesswork, and certainly my staff and I have struggled with the inflation forecast. In a lot of models, the approach to inflation forecasting both depends on and is very sensitive to varying degrees of incorporating forward-looking expectations and how much looking backward you do. In this environment, when you have big swings up and down in inflation, looking backward may or may not be very helpful or very good. It also depends a lot on how much credibility you think the central bank has. It is further complicated because we are at the zero bound, and that is difficult to incorporate into the models. So I would like a little discussion from you about how you came up with your forecast for inflation in this model—how much of the path that you got is really dependent on the model because, frankly, it is really hard to figure out what to do, given all those things I just mentioned.

MR. SICHEL. So I share your pain. [Laughter] Regarding how we put this together, we are not looking at any particular model. We are looking at a range of models and trying to make the best judgment that we can about how the various forces that affect inflation are likely to come into play over the next couple of years. In terms of frameworks, we look at some pretty standard, backward-looking models that do not have any forward-looking components, just traditional measures of resource slack. We also look at some forward-looking models in which

we incorporate various measures of inflation expectations to try to avail ourselves of the information in some of the survey-based measures of inflation expectations that have a more forward looking component.

In terms of the factors that are particularly important for this contour, the very large amount of resource slack shown in that picture as captured by the unemployment rate—although one could measure that in many ways—is one important feature in the considerable slowdown of inflation. We think that a lot of slack will be putting downward pressure on wages and prices. Then we add to that the movements in energy and other commodities and materials prices and the movements in import prices, which have all been quite dramatic recently in the direction of pushing inflation down. We think that all those things in terms of the forward-looking component are also going to be weighing on inflation expectations and that, as businesses and households in the economy see all of those factors and see headline inflation numbers coming down, inflation expectations themselves will be coming down some. So we do the best we can with a range of models and try to bring the best judgment we can, and this is where we land.

MR. PLOSSER. Okay. I think it is very difficult

MR. STOCKTON. The thing that we are having the greatest difficulty with is trying to think about the evolution of inflation expectations in this current environment, in which monetary policy has the fed funds rate pinned at zero, and that shows through in other places. In this forecast, we are assuming that, because actual inflation is going to run as low as it is for the reasons that Dan said, there will be some downdrift in inflation expectations. That is implicit in this forecast, maybe on the order of  $\frac{1}{2}$  percentage point over the next few years. We are uncertain enough about that that we obviously wanted to show some alternative simulations because a reasonable case could be made that, in fact, we are not going to get as much downdrift

in inflation expectations as we have implicitly built into this forecast. We showed a simulation with anchored expectations running at about 2 percent, and I could see that. Even though we have already entered a period of extreme weakness, as we showed in the briefing yesterday, the Michigan survey, with 5-to-10-year-ahead inflation expectations, has not really shown any discernible movement yet. We might have expected that we would already have seen that if the effect was going to be large.

On the other hand, just taking a look at historical evidence on sacrifice ratios would suggest a great deal more disinflation than we have built into this forecast. If you just used average sacrifice ratios of 4, you would come up with something similar to what we had in the deflation scenario that we showed. Though I am skeptical about that particular sort of pure backward-looking model, I do not think you could write off the possibility that, given that we think we are going to be in an extended period of extreme weakness with large output gaps and declining price pressures coming from commodities and oil, you could see a more significant movement in inflation expectations and even lower inflation. So we are struggling with all of the exact issues that you laid out. This is our best guess at this point.

MR. PLOSSER. So just two observations about that. One is that we spent a lot of the past year, as we had the run-up in headline inflation due to oil on the upside, and most of us stressed the importance of anchored expectations and believed that expectations remained fairly well anchored. Consistent with that ongoing view, my outlook looked more like your “anchored inflation expectations” framework. I guess I’d also just comment that a lot of the empirical evidence on, let me call it, the new-Keynesian Phillips curves with output gaps suggests that the sensitivity of inflation to some of those gap measures is certainly not as large as the sacrifice ratio of 4 that you would put in. So I think there might be reason to diminish that effect,

particularly if you thought, as we have discussed before, that some of these shocks might, in fact, be shocks where you actually have a new, lower equilibrium. So the gap is maybe not as large as it appears to be.

MR. STOCKTON. Just to be clear: In our forecast, we are assuming a much flatter Phillips curve than has been the traditionally estimated one and a higher sacrifice ratio.

MR. PLOSSER. My last question is about fiscal stimulus and your estimates there. It is hard not to read the commentary, and there is a huge debate going on about the effects of stimulus. Look at the empirical evidence, the theoretical evidence—the empirical work by Blanchard, and Valerie Ramey’s stuff, and you have Christina Romer’s work on the different estimates of multipliers and all that sort of stuff. And I was curious. In the discussion, you highlighted two pieces in particular: The first was the consumer tax cut and the debates about whether or not that is going to be saved or spent, and the second one, which I thought was somewhat more interesting, was that you thought that the business tax cuts would not have much effect. I guess I had two questions about that. One, my reading of the empirical evidence is that those business tax cuts often do have some very short run stimulative effects, but the empirical evidence also says that large spending increases oftentimes have a negative effect on business investment. That is where the substitution comes from. So I just would like a little insight in terms of the model or the assessment of the pieces of this stimulus and how it plays into what you’re assuming about some of those multipliers and so forth.

MR. SICHEL. To pick up on the business side of that first—we looked at the experience from the 2002–04 business tax cuts, and our best reading of that was that we just did not see much effect. In terms of the empirical work that we did, we just don’t think that there is a big kick there, perhaps particularly in a period when many businesses are in tough times and taking

losses. It just may not be enough or the right kind of thing to get them to start investing. So our reading of the evidence is that on the business side there just will not be much.

MR. PLOSSER. If that is true, it would suggest that the other relevant piece of evidence for this is that, if large increases in expenditures as opposed to tax cuts act as a negative on business investment, as some of the empirical evidence suggests, your forecast for business investment may be worse than what you have in your model—or not?

MR. SICHEL. I guess that channel would come through a user-cost effect on large expenditures and so on pushing up interest rates and generating crowding-out through that sort of a channel. We do have a modest increase in Treasury rates in this forecast for a variety of reasons, but we also have quite a dramatic decrease in, say, Baa bond rates and those spreads coming in during this period, when we think, as the macro risk diminishes, we are going to see some declines in credit spreads. I think that decline in credit spreads going forward is likely to more than offset whatever forces there might be from the kind of expenditure-based crowding-out.

On the household side, we are looking at the proposed tax cuts as being permanent. We are treating them as permanent tax cuts, so we are treating those the way that we would typically treat a change in income in the usual model. We have a marginal propensity to consume of about 0.7. We have some lags by which about 60 percent of the spending that is going to happen happens in the first year and about 85 percent by the end of the second year, and we are doing a pretty standard sort of analysis there with the types of numbers that we are getting.

MR. PLOSSER. Well, the key is that you were treating them as permanent.

MR. SICHEL. Yes.

MR. PLOSSER. That answers the question there.

MR. SICHEL. We are interpreting this proposal as a down payment on a permanent change.

MR. PLOSSER. Okay. Thank you.

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

MR. BULLARD. I am comparing exhibit 3 with exhibit 6 here. In exhibit 3 you have the middle panel on the right, “Overvaluation of Single-Family Homes,” and in exhibit 6, the middle right panel, you have “Prices of Commercial Properties.” On exhibit 3, I guess this is a judgment call: a reduction in home values of about 25 percent—am I reading this right?—from where they are now.

MS. DYNAN. You have to remember that rents are also rising in this calculation. But just in terms of the price component, we have seen a decline of about 15 percent so far, and we are going to see another 15 percent.

MR. BULLARD. Another 15 percent on homes.

MS. DYNAN. That is right.

MR. BULLARD. So I have done pictures like this, too, because I think it shows that the bubble part is out, and whatever else is remaining is overreaction, which is what you are saying.

MS. DYNAN. That is consistent with our view, yes.

MR. BULLARD. But on commercial properties and then in exhibit 6, you have maybe a different story, a more moderated downturn there, if I am reading this right.

MS. DYNAN. Yes.

MR. BULLARD. Is there a reason that we should think commercial properties are not as susceptible to the overcorrection as housing is?

MS. DYNAN. We do not have a model—or we have not really found a robust model—for overvaluation of commercial property, so it has been more difficult to analyze formally. But more generally, the reason we think that there will be such a large overcorrection on the residential side is that, with our forecast for the huge numbers of foreclosures, we think we are going to see a lot of supply dumped on the market and that it will perhaps lead sellers to aggressively cut prices. So far that has not happened in the commercial area, although we certainly think it is a risk. We agree with President Yellen's view that, depending on what happens in the CMBS market, it could be something that would happen. But your reading is correct—we are not foreseeing a massive overcorrection on the commercial side at this point.

MR. BULLARD. Okay. I guess I will interpret that as there might be some downside risk in this area.

MS. DYNAN. For sure.

MR. BULLARD. On the assessment of fiscal policy, what is the effect of the deficit program on longer-term Treasury rates?

MR. STOCKTON. That is a hard question to answer with any precision, but here goes. We have implicit in this forecast a rise in the ratio of federal debt to GDP of about 15 percentage points over the next two or three years. You may recall that there was a whole cottage industry several years ago trying to estimate the effects on long-term interest rates of that. One study done by Glenn Hubbard and Eric Engen, one done by Thomas Laubach, and I'm forgetting the third one now, but they all came up with effects. Some were in the range of 2 to 3 basis points per percentage point. If you used those estimates to get a rough idea of how much you might be holding up Treasury yields from what they otherwise would be, you would get something between  $\frac{1}{4}$  and  $\frac{1}{2}$  percentage point. I am not really sure in the current circumstances how

relevant some of that empirical evidence is, in that we don't think we are going to be in a situation where there will, as Dan noted, be very much crowding-out because the output gap is so large over this period. It is not quite as though the federal government is going to be competing with the private sector for the resources. There are going to be a lot of slack resources available, in our estimate of the output gap.

MR. BULLARD. Is that a global output gap or just the United States?

MR. STOCKTON. Just the United States. I am not sure whether I would venture a guess as high as the upper end of that range, but clearly we are starting to hear some stories about Treasury yields being affected by anticipation of a very significant rise in debt here.

MR. BULLARD. Okay. I just have one more thing. It is exhibit 9, which is "An Unconventional Policy." We have two graphs at the top, on the unemployment rate and core PCE prices. I guess I would interpret these to say that, if you were serious about putting confidence bounds around these estimates, you probably could not tell these apart statistically. Do you think that is a fair assessment, or are they more tightly estimated than that?

MR. SICHEL. If you look at the picture in Part 1 of the Greenbook, we have some confidence bands based on Greenbook errors. If you compare the large-scale asset purchases line in that picture with the baseline, the large-scale asset purchases line is near the edge of the 70 percent confidence interval. So they are different. [Laughter] It is important to acknowledge that there is a tremendous amount of uncertainty, particularly in thinking about these types of programs and the effect of these types of programs. If you think about all the steps as you go through the exercise of trying to gauge what the effect of these programs is and you go through all the steps of the purchase of securities—what is the effect on interest rates in the market where

the securities are purchased; what is the spillover to other markets; and then in this environment, what are the implications for economic outcomes?—there are many places to be very uncertain.

MR. BULLARD. So there is a lot of additional uncertainty that may not be properly captured in those confidence bounds? Is that what you are saying?

MR. SICHEL. Well, the confidence bounds are based on a draw of errors over the past 20-plus years. That may not correctly capture the environment that we are in now.

MR. STOCKTON. I think we can safely say that the confidence intervals are wide here, I think wider than we show in those estimates, probably wider than you can get on a legal size piece of paper. [Laughter] We start out with our normal simulations that have all of the uncertainty about the shocks to the economy and even about the structure of the model of the economy. These simulations have the tremendous added uncertainty of what these purchase programs will actually do to private interest rates, and as the note that was circulated to the Committee indicated, there is just a lot of uncertainty about how any particular program would affect mortgage rates, Treasury rates, the Baa rate. We are doing our best here. In some sense, this was a response to a question that you posed last time: What would it take to fill the gap between the unconstrained and the baseline forecasts? But I think it is extremely uncertain.

MR. BULLARD. We didn't get lines that went like this or where it would have a huge effect but it would be very bad for other elements of the economy or something like that. We did not really get that. We got things that are close to baseline.

CHAIRMAN BERNANKE. We are doing Bayesian decision analysis and not classical hypothesis testing here. That is a very different proposition. President Lockhart.

MR. LOCKHART. I decided to withdraw my question.

CHAIRMAN BERNANKE. President Stern.

MR. STERN. I want to get back to commercial real estate for a second. As I recall, we had a very significant correction in commercial real estate in the late '80s, early '90s. I wonder if you have looked at what you are anticipating for the next couple of years relative to that experience and whether it was similar, more severe, less severe, or whatever.

MS. DYNAN. Actually, at this point, the rise in delinquency rates is—

MR. STERN. You are going to get some help from Steve.

MS. DYNAN. Thank you.

MR. OLINER. I am just going to add a few words. I think we are expecting problems in that sector that will not be as severe as the downturn in the late '80s and the early '90s in large part because we did not have the massive amount of overbuilding in this cycle that we had then. It is true that we have had a tremendous drop in demand for space, but we are coming into this cycle in a much better supply position.

MR. STERN. Okay. Thanks. The second question: Did you calculate an implicit fiscal multiplier for the next couple of years? If so, what is it?

MR. SICHEL. We did. Those numbers are hard to interpret, but we did a calculation.

MR. PLOSSER. I tried to get an answer on that, and they would not give it. Maybe they will answer it for you.

MR. SICHEL. In the sorts of calculations we talked about of figuring out what the impulse is, we have a multiplier of about 1.3.

MR. STERN. One point three.

MR. SICHEL. Yes. If you compare that with others, though, it is very important to be careful because those multiplier calculations include all sorts of different things. What are you assuming is endogenous or exogenous? What other things move, and when you do that

calculation, what of those things that move are you including or not including? So we think that is very much in the range of the numbers that other analysts looking at this type of program are using. We do not think we are doing anything particularly different there. You might see a number that looks different, but if you dig under the surface and you do an apples-to-apples comparison, I think we are very much in the range of what others are doing there.

MR. STERN. Okay. Thanks.

CHAIRMAN BERNANKE. It depends on the composition of the programs, too.

MR. SICHEL. Absolutely.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Real quick, a domestic question and an international question. The domestic question, which is just a data question: What do we expect the Treasury issuance to be in fiscal year 2009? The numbers I have seen go up to \$2½ trillion.

MR. SICHEL. We are projecting a deficit for fiscal 2009 of about \$1.8 trillion.

MR. FISHER. But my question is new issuance.

MR. SICHEL. I do not have those numbers.

MR. STOCKTON. We have an answer to that question, but I do not have it right in front of me.

MR. FISHER. Could you get it to me sometime?

MR. STOCKTON. Absolutely.

MR. FISHER. On the international side—maybe this is a question for Nathan—I am curious. As I understand it, the Exchequer has given the Bank of England permission to purchase outright high-quality corporate bonds. I presume that they have had the same kind of discussion that we have had about moral hazard, how far they want to go, which securities they

wish to purchase, and so on. I was thinking about that looking at this table in exhibit 11 and the United Kingdom's predicament, but do you know who has some insight into that decision and how perverse or how wise it is?

MR. SHEETS. I think it is fair to say that, of the major central banks, the Bank of England has been particularly concerned about the moral hazard sorts of issues and has moved into these kinds of programs with great reluctance. The major feature that I see of this announcement by the Bank of England is that now they can purchase outright stuff that they were taking only as collateral. My understanding is that this program is limited to AAA-rated assets, and I don't see them taking on as a result of this a huge amount, or really any, credit risk under their balance sheet. So I interpreted this as a relative modest step down the road toward balance sheet expansion. That's my reading of it. We can look at it again more carefully and see if we have different views at that point.

The U.K. program more generally had some really aggressive features that didn't involve the Bank of England. For instance, the government is now going to be guaranteeing the asset side of the balance sheet as well as the liabilities side of the balance sheet for institutions and those sorts of things that were part of the announcement. But I saw the Bank of England step as more incremental, rather than some sort of significant quantum shift in the orientation of their policy.

MR. FISHER. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Other questions? President Lacker.

MR. LACKER. I'm looking at exhibit 9. I note that the program involved half MBS, half Treasury and that mortgage rates fell 125 basis points and Baa rates fell 75. What if it was

all Treasury? What would the fall in mortgage rates be, and what would the fall in the Baa rates be? Would the effect on growth be larger or smaller?

MR. SICHEL. I can tell you a little about that. We did unpack the simulation and think about what if it was just \$500 billion in MBS. What does that look like? What if it was just \$500 billion in Treasuries? What does that look like? It is very important to highlight the uncertainties that Dave Stockton just mentioned with these estimates being incredibly uncertain. We are trying to do something consistent with what was in those zero lower bound notes, but boy, there is a lot of tough stuff going on. So when we do that and we think about a \$500 billion Treasury package, we would see Treasuries coming down about 50 basis points and Baa yields and mortgage rates coming down about 30 basis points. The assumption there is that you get a hit on Treasuries and then a somewhat smaller spillover into other markets.

MR. LACKER. Did you say 30 for both mortgage rates and Baa?

MR. SICHEL. Yes, and there is no great science here. It is looking at correlations of rates and how these rates have moved historically and so on. If you look just at MBS, you find that you would get a bigger effect on mortgage rates, maybe something on the order of 90 basis points on mortgage rates, 50 on Baa, and maybe 30 on Treasuries. Then when we take all of that and we run it through FRB/US and think about \$500 billion of this and \$500 billion of that, what are the output effects? In FRB/US, the output effects are pretty similar for those two programs. Now, there are many channels through which these programs would affect the economy that are not captured in FRB/US. One could make very plausible arguments for why, in fact, those two effects might not be the same, so let me just leave it there.

MR. LACKER. When you say “same,” you mean at the aggregate level.

MR. SICHEL. At the aggregate level, right.

MR. LACKER. Presumably the fraction that is houses is different.

MR. SICHEL. Oh, yes. But if you look at what the change is in the unemployment rate relative to the baseline, it is about the same.

MR. LACKER. The composition is different.

MR. SICHEL. Right, the composition is different.

MR. LACKER. So this implies that, if you did \$1 trillion in Treasuries, the Baa rate would be lower.

MR. SICHEL. What is the comparison that you are doing?

VICE CHAIRMAN DUDLEY. He is multiplying by two.

MR. SICHEL. Yes, and then comparing it is lower than what?

MR. LACKER. I guess the 75. I guess I am confused. I see—the Treasuries have a smaller overall multiplier. It is like 30. So it would be just 30. So it would just be 60 on that and 60 on the—

MR. SICHEL. These numbers are very rough. I feel like I am being tortured, giving these out here. [Laughter] They are very rough.

MR. LACKER. Two more questions. One for Brian. In exhibit 6, the projections, bottom panel, longer-run inflation forecast, the dotted line is our October projections, and the solid lines are our January projections. If our intent was to find an inflation number that we all report that had some stability from forecast to forecast, we seem to have failed.

MR. MADIGAN. Well, it could be that the Committee's views have changed in the last several months.

VICE CHAIRMAN DUDLEY. You mean, for example, where you want to anchor long-term inflation expectations?

MR. MADIGAN. Exactly.

MR. LACKER. So one interpretation is that the implicit longer-run inflation objective of the Committee has changed over this quarter.

MR. MADIGAN. And one plausible reason for that is that the Committee is now experiencing the actuality of a very large negative demand shock and maybe it now believes that it needs a larger inflation buffer than it previously thought would be best.

MR. LACKER. But this exact variability is what led us to be unhappy with the third year of the forecast mechanism for revealing an implicit inflation target.

CHAIRMAN BERNANKE. It could go the other way. You could say that the trouble with the fixed target is that it doesn't allow for knowledge to accumulate. I mean, there really has been another deflation scare, and it may affect our views.

MR. LACKER. Okay. Well, we'll discuss this more. One final thing. I think I saw Governor Duke try to intervene during the conversation about the responses to the Senior Loan Officer Opinion Survey, which was something I was discussing with Governor Kohn a minute ago. You know, when I think about what people say about credit constraints, the idea of a consumer with given characteristics—FICO score, income, and everything—with GDP growth of plus 3 versus GDP growth of minus 5, the identical consumer is going to be riskier in the second situation. If a bank is not willing to lend in the second situation and is willing to lend in the first situation, I assert that they would say they are tightening their standards. I would also assert that it does not seem like a credit-channel, credit-constraint type of thing, as you might otherwise think.

CHAIRMAN BERNANKE. It would be interesting to compare the Senior Loan Officer Opinion Survey over different cycles, for example.

MR. LACKER. Right, it would, but I was going to ask Governor Duke because she is probably actually—

MS. DUKE. I will speak for myself. When bankers talk about credit terms, that is typically going to be something like the credit score, the debt-to-income ratio, or some metric of underwriting with the most obvious example being GMAC's announcement right after becoming a bank holding company that they were going to reduce their minimum credit score from somewhere in the low 700s to somewhere in the mid-600s, which would obviously mean that they would approve a larger number of applications. Sometimes a change in terms is done to reduce the number of accounts or the volume; sometimes it's done to increase the quality.

A couple of things are going on. Right now you have the same consumers' credit metrics deteriorating very rapidly. So even if you did not change the metrics you were using, you would still approve a much smaller proportion of the applications. So that is going on. The other thing I will be interested to see the next time we do this survey is that the banks are feeling a tremendous amount of political pressure on their lending. I am not sure that they want to report that they have tightened their terms for consumer lending or even particularly that they are going to change those terms. So I think we might see some pretty drastic reports of at least not tightening terms on consumer lending in the next survey.

MR. LACKER. Thank you.

CHAIRMAN BERNANKE. Seeing no other questions, why don't we adjourn for today, and we will begin tomorrow the first thing—9:00 a.m.—with the go-round. There is a reception across the way and dinner.

[Meeting recessed]

**January 28, 2009—Morning Session**

CHAIRMAN BERNANKE. Good morning, everybody. On the announcement of the extension of our various programs, we have had additional communication with the European Central Bank, and they are well disposed toward extending the swap arrangement. But it turns out that they need a few more days to get formal approval from the Governing Council. Their proposal is that we announce next Tuesday morning so that they can get the approval on Monday. We have had some discussions about communication strategy, and the view appears to be that putting all of our programs in one announcement is probably the best way to go because otherwise you create questions about why this and not that. So although it puts some pressure on our confidentiality and all the other things, I think the plan—and I would be happy to take comments or advice—would be to hold off until next Tuesday morning to announce both the swap extensions and the credit programs that we voted on yesterday.

President Plosser, we did inquire about the AMLF and had some discussions—talked with President Rosengren and his staff. The view is that there are some complications and difficulties with ending it in a peremptory way. We will continue to discuss that, but we think for the moment we should not cancel it immediately. President Rosengren, would you like to comment on that?

MR. ROSENGREN. Yes. As I said yesterday, I talked to the money market funds. They do think that the backup facility, while they hope they don't have to use it, has been serving a different purpose from some of the other facilities. There is some concern that, if we were to announce the closure, we would get inundated with asset-backed commercial paper right before we closed down the facility. And the money market funds would have to do other things to try to

remain more liquid, so we might create issues that we are not trying to create at this time. So I would be in favor of extending it.

CHAIRMAN BERNANKE. With the understanding that we will continue to look at all these programs and review them and that we always have the option to restructure and rationalize what we do. Any thoughts or comments on the communication issue? All right. If not, it is time for the economic go-round, and we will start with President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. In Atlanta, we just completed a full cycle of our Branch board meetings and the Atlanta board discussions, as well as quite a number of pre-FOMC calls. No surprise, sentiment about the economy continues to worsen as more parties are feeling the effect of the downturn. Fallout from financial market stress and the contracting economy continues to spread and is affecting sectors previously thought to be insulated—for example, hospitals and universities. Consumer retrenchment has significantly affected restaurants, the travel industry, and a wide variety of personal services. The anecdotes I am hearing on consumer behavior are quite colorful. Describing the popular culture, one director said, “It is cool not to spend.” A director who is a chief financial officer of a large national home-improvement retailer described the recent shifts in consumer purchases within their stores in the direction of paint (if I am out of work, I might as well paint those walls), snow blowers (no longer willing to pay for service in the snow belt), and zero-radius lawnmowers (not to mow one’s lawn but to hire oneself out to mow others’ lawns). Anecdotal feedback also supports the Greenbook view that house prices continue to feel downward pressure. In some parts of the Sixth District—for example, South Florida and metro Atlanta—I am advised that prices may yet decline another 10 to 20 percent over the year.

There is widespread frustration over the inability to make longer-term plans in such a highly uncertain environment. This seems the case across the spectrum of economic actors, including banks, large and smaller businesses, and households. Investment decisions are being indefinitely postponed. We are hearing from business and consumer borrowers that they can't get loans or that lending terms for new or existing loans have tightened to an extent that they perceive as unreasonable. Bankers are telling me that there is little loan demand from qualified borrowers. Our S&R examiners noted a migration to asset-collateralized secured loan structures for previously unsecured cash flow-based C&I loans.

Prompted by the question that we sent out in advance, much of the discussion at our recent board meeting centered on Fed communication strategy and execution. Atlanta directors were uniform in their call for intensified and simplified communication aimed at the general public to treat confusion, anxiety, and a deficit of confidence. Saying much the same thing, financial market contacts emphasized the heightened importance at this time of a clear and credible framework and plan for improving financial conditions and the avoidance of the appearance of one-off emergency policies. This theme reflects a context of deep concerns about the financial sector in general and some very large institutions in particular.

Turning to the national economy and my forecast, the broad strokes of my forecast haven't changed materially since October. Then I was, on balance, rather pessimistic, and I remain skeptical of a more V-shaped recovery developing in the second half of 2009 and 2010, as projected in the Greenbook. Now, I acknowledge that the Greenbook narrative used the words "gradually strengthening," but it did depict 2 percent growth in the second half and 2½ percent next year. In contrast, I continue to anticipate a flatter, more protracted, L-shaped recovery moving through 2011. It is my sense that the rebuilding—or "rearchitecting," to use

Governor Warsh’s term—of the financial system and the rebuilding of business and household balance sheets will take a long time, restraining growth in the process.

Similar to the “more financial stress” alternative scenario, I think the dysfunction in the ordinary channels of credit intermediation is likely to linger; and as in the “more cautious spending” alternative, I think rates of business and household saving could rise significantly and remain elevated after the recovery takes hold. One Wall Street firm calls this their “frugal future hypothesis.” One of my financial contacts argued that the context of any recovery would be one of working through structural issues that are deep and wide. The referenced structural issues include the balance of saving versus consumption, with the obvious implication for consumer demand.

The potential for a longer period of more-intractable disinflation could obviously complicate progress toward recovery, and this possibility weighs heavily on my assessment of the risks we face. Also, I find it hard to think of an “appropriate” policy that anticipates core PCE inflation remaining under 1 percent through 2013, as in the Greenbook forecast. Again, of course, the Greenbook forecast is not conditioned on appropriate policy. I have, therefore, conditioned my assumption about the path of policy on adequately addressing the risk of further unwelcome disinflation that threatens deflation. My longer-run outlook, assuming no further adverse shocks, has inflation returning to a 2 percent trend, and my growth projection converging to a 2½ percent potential. Let me add that I support the subcommittee’s proposal on the long-term forecast. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Mr. Chairman, since the last FOMC meeting, our District’s economy has continued to weaken, and this weakness is widespread and is taking on more of the complexion

of the national economy. Led by a sharp decline in manufacturing and slower export growth, year-over-year private employment growth slipped into negative territory in November for the first time in our region since '04. Consumer spending weakened in December despite heavy discounting, and residential real estate activity remains quite depressed. Conditions in commercial real estate have deteriorated markedly, and financing in this sector has become extremely difficult. I might add a footnote here: In discussions of this with some of the folks involved in commercial real estate, they are concerned about a couple of years from now because in 2002, 2003, and 2004 there were a lot of commercial real estate projects put into play at very low cap rates and very good interest rates, with a 10-year balloon. So those are all turning now with obviously less value because they are assuming that the cap rates will be higher. They are also assuming that the buildings will not be as new, and therefore the values will be under pressure. So they feel that the problems in commercial real estate are only beginning.

Those parts of the District that depend on energy and agriculture continue to be somewhat better, but these areas are expected to show—and are, in fact, showing—declines, and we expect pretty sharp declines in '09 due to the falloff in commodity prices. District businesses are moving rapidly to address the sharp slowdown. Many have instituted hiring and wage freezes, and layoffs have risen considerably. Many businesses have significantly curtailed current production and future capital spending plans. For example, our energy industry contacts expect a 30 to 50 percent reduction in drilling activity and a 35 to 60 percent reduction in capital expenditures in '09.

The fiscal situation for states and local governments has also deteriorated very rapidly. Most District states are now looking at significant budget shortfalls over the next two years. Most states plan to address these deficits through spending reductions rather than tax increases.

The situation for local governments is somewhat mixed, depending on whether they rely on property taxes or on sales taxes for the revenue base. Many states and localities are looking for assistance from the federal stimulus package to avoid more draconian cutbacks in spending. Banking conditions are deteriorating within the region. Nonperforming loans are increasing, and losses are mounting as well.

Turning to the national economy, recent economic data have been worse than expected, leading me, like others, to revise down the forecast for growth this year. I now think we could see negative growth into the third quarter before the economy picks up as the fiscal stimulus begins to take hold later. In the near term, I see considerable downside risk to growth due to the pervasive weakness in the U.S. and foreign economies and the substantial financial headwinds that remain in place. Indeed, I fully expect banking conditions to deteriorate further, even as financial markets begin to stabilize. I am especially concerned that commercial real estate, as I mentioned earlier, could be the next shoe to drop, with broad implications for banks and insurance companies across the country. Consequently, the strength and the timing of the recovery appear, obviously, very uncertain at this point.

In terms of inflation, the significant decline in energy and commodity prices, along with a weaker economy, has obviously put considerable downward pressure on overall and core inflation, as a cyclical effect of this recession. I think it would not necessarily be timely to start projecting deflationary pressures, and although I get more questions about that, at this point I don't consider that the highest risk we have. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Like everybody's District, our District has slowed and continues to look very weak. The business outlook survey actually rose a little last

month, but it is still measured deeply in recessionary territory. Our banks continue to lend—to households, in particular. They have cut back on commercial lending, and credit quality continues to deteriorate across all loan categories in the District. Housing sales are down, but prices have not fallen to the degree that they have in some parts of the country, probably on average—the declines have been more modest. And the housing problems are not quite as bad as in some parts of the nation, but everything has deteriorated. So, basically, in the Third District, the current economy and its outlook look largely like those of the nation as a whole, and all indications are that this recession will certainly be one of the worst in the postwar period.

There are lots of reasons for doom and gloom. As we have just heard, there are lots of reasons that we think that this recession and this weakness will continue, perhaps for some time to come. But somebody has to take a somewhat more optimistic view—just to make the distribution complete, if for no other reason, right? [Laughter] I think there are common elements to many business cycles. I also find that one thing people have focused on a lot regarding the press and other things is that business sentiment, consumer confidence, and how people feel about the future appear to be very sensitive in this particular phase of the cycle. Those things are pretty gloomy right now, but I would suggest that many economic cycles do have some commonalities, and one of those commonalities that often appear—not every time, but often—is that sentiment can turn around very quickly and it can change for reasons that sometimes we don't understand or can't easily predict.

It is also true that financial markets can move very quickly in various directions. We have seen them move very quickly to the bad. Once markets begin to heal, they could move very quickly in the other direction. So for the sake of optimism, I think there is still a possibility that at some point—maybe not in the first half of this year and maybe not even in the second, but

there is still the hope—things could turn fairly quickly. I am not basing a lot on that, but I do feel somewhat more optimistic than a lot of people—including my staff, by the way. They forced me to say that they take no responsibility for this, [laughter] and so I am letting them completely off the hook.

MR. HOENIG. They disowned you.

MR. PLOSSER. They have disowned me. They have had it. I do anticipate the growth path to look somewhat like that in the Greenbook. But I am basically a little more optimistic than they are—a very weak first half, maybe some positive growth in the second half, which may just balance each other out, but that may be an optimistic perspective. I expect the economy to gain some steam in 2010, to about 3 percent, and settle into something closer to a steady state or at least to a long-run trend in 2011. I have less overshooting in my forecast than some of the models do—and I think than the Greenbook—because, as I explained yesterday, I have less of an output gap than they do. I think some of the productivity shock on financial intermediation is showing up in less of a gap, and therefore there is less of a closure and pushback on the other side. Unemployment rates will clearly rise this year above 8 percent, but I hope that by the end of the year they will begin to stabilize or perhaps come down a bit.

On fiscal policy, as I was asking the staff yesterday, I am not very optimistic that the fiscal package will do much for the economy. A multiplier of 1.3 is probably pretty optimistic, from my perspective. So I haven't built in much effect from fiscal stimulus. I hope the fiscal package is constructed to give its best shot at helping, but I am not entirely optimistic about what its shape will actually look like or whether it will actually be very much help.

Obviously, because I am on the more optimistic side, the risks to my forecasts are clearly to the downside. My inflation forecast is less deflationary than the Greenbook's baseline, and it

is similar, as I said yesterday, to the alternative simulation labeled “anchored inflation expectations.” In that sense, I am relying more on forward-looking expectational models than on distributed lags of past inflation, which heavily affect both the output gap and the forecast of inflation going forward, given the wild swings in relative prices that we have seen. I think more in terms of estimated new-Keynesian Phillips curves, in which the output gaps both are smaller and have less effect on inflation. Again, those lead me to a little less dire scenario in terms of the deflationary pressure of output gaps going forward. I put a lot more weight on our credibility for keeping inflation near 2 percent than on the past behavior of prices. There is some risk to this inflation forecast, as I alluded to. Near term, we will not see much inflation. I am not concerned about that. Nor do I think that deflation is going to be very persistent. Some of it is already in train because of the way oil prices are behaving. I do think that, in the longer term, there are inflation risks unless we manage our balance sheet appropriately. I am encouraged by our discussion yesterday and some of the language that we talked about in terms of thinking about how we manage that in a careful way.

Finally, I would just repeat my request—I think it was at our January meeting on inflation targeting—that it would be useful in our forecast summaries actually to forecast and report out, as we do with other measures, our assumed policy paths that each of us are using for our projections. In the internal summary, you give a verbal description of people saying what their assumed policy path is. But I do think that it would be useful to summarize those in terms of both ranges and central tendencies because, as we move—assuming that we can and do—to a more explicit inflation-targeting regime, that range of central tendencies for the assumed policy paths should be added. I think it will both help for transparency reasons and help anchor expectations as to what we are doing, and that would be good. So I would encourage us to

continue to pursue that effort, and, of course, I am in favor of the longer-term projections. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. We are in the midst of a very deep and protracted downturn, and I have to squint really hard to see any light at the end of the tunnel. It is a sad commentary that the one glimmer of light during this intermeeting period has been that economic developments have been roughly in line with our expectations. In other words, we were braced for the bad news we received. For example, we had expected a dreadful holiday retail season, and that is precisely what we got. One of my directors, the head of a national department store chain, reported that his company posted its worst season since it was founded in 1901. We had anticipated severe hemorrhaging in jobs and a sizable jump in the unemployment rate, and that, too, is what we got. Many of my business contacts are reporting layoffs and wage freezes. One unpleasant surprise among the economic data was last week's 15 percent drop in housing starts. The residential housing sector has now shrunk so much that the only real assurance that it will ever stabilize seems to be the fact that construction spending cannot go negative. This is just about the only zero lower bound that is working on our side. [Laughter]

Turning to financial markets, it is comforting that lending terms eased in a few markets, notably money and mortgage markets. But equity markets continue to sink, and credit spreads remain breathtakingly large. Another of my directors, the chairman of a large, well-known apparel company, reported that his company, which is rated BB, looked hard for additional financing and the best they could come up with was a loan rate of 18 percent. We have also heard many reports concerning the tightening of trade credit. Indeed, a particularly severe

shortage of credit to finance international trade flows may conceivably help explain why both exports and imports are shrinking by abnormally large amounts relative to the decline in GDP.

Looking ahead, I expect that, as in the Greenbook, high borrowing costs and the continuing credit crunch will help prolong the recession for at least a couple more quarters. Accordingly, I project that real GDP will decline ½ percent this year, and the unemployment rate will rise to 8½ percent. However, I am hopeful that a large and timely fiscal stimulus will help kick-start a recovery by the end of the year. In particular, based partly on our situation in California, I think the Greenbook's assessment of the impetus provided by the proposed federal fiscal stimulus directed toward state and local governments is on the pessimistic side. The Greenbook assumes that such spending will roll out slowly over the next several years, providing little near-term stimulus. However, my contacts told me that in California a lack of funds has already halted construction on a number of public infrastructure projects, and these projects could be quickly restarted if federal funds help the state close its huge budget gap. Outside California, the data suggest that most of the country is facing near-term cuts in state spending in areas ranging from education to construction, and it appears that the fiscal stimulus will allocate money largely to those states that could most use it to avoid immediate spending cuts and finance shovel-ready infrastructure projects. Still, even with a large fiscal stimulus, it will take many years before the economy returns to potential and economic slack is eliminated.

Unfortunately, over the intermeeting period, I have become much more pessimistic about the downside risk to my modal growth forecast owing to the rapidly deteriorating condition of the banking system. For much of the past year, it was the financial sector that was constricting the real economy, but now the slowing economy is returning the favor. The sharp decline in equity prices and increases in CDS spreads for bank holding companies since our last meeting

presumably reflect the market's concern about the likely magnitude of losses that will hit the banking sector. These losses now reflect a broad-based deterioration in performance across the whole spectrum of consumer and corporate lending. As I mentioned yesterday, I share President Hoenig's concern about commercial real estate over the next few years. I fear a cycle in which rising vacancies and falling valuations make it impossible for owners to refinance loans that will be coming due, leading to forced selling and intensifying downward price pressures. Such a development may undermine the soundness of many regional and community banks, whose exposures to this asset class are substantial.

Let me conclude with some discussion of the outlook for inflation, for which there are also sizable risks. I expect core PCE price inflation to come in at about 1 percent this year and then edge down a bit more in 2010 and 2011. Given the sizable downside risks to the forecast for economic growth, the risks to inflation also appear tilted to the downside. As in several of the Greenbook alternative scenarios, it is not hard to imagine a situation with excessive declines in inflation and a long-lasting deflationary trap, much like Japan's experience and perhaps even complete with zombie banks. Of course, I am reminded that the last time we were concerned about the possibility of deflation in 2003 we were head-faked. The deceleration in prices during that period was not sustained, and it was actually concentrated in a few categories of goods, particularly used cars with very flexible prices and owners' equivalent rent.

My staff has taken a first look at the current episode in order to see how widespread deflationary pressures are across various categories of goods and services. Given the available data, they find in this preliminary look that the recent deflationary pressures are more prevalent now than during the 2003 deflationary scare. Just as in 2003, some recent price declines are in categories of goods with highly flexible prices, like used cars and apparel, where price cuts could

reflect a temporary response by retailers to sell off excess inventory. However, disinflationary pressures are somewhat more prevalent now than in 2003 in categories of goods and services characterized by sticky prices. We will be analyzing these data in greater depth going forward and monitoring them, but we think they raise the risk that we could see a prolonged period in which inflation falls well below the level consistent with our dual goals of price stability and maximum sustainable employment. That leads me, especially now, to favor going ahead with the publication of our longer-term projections, especially given that inflation over the next three years, our standard horizon, looks as though it is unlikely to converge to the levels that we think most desirable in the longer term. I think it makes going ahead with the extended forecast particularly appropriate now.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. The Eighth District economy is clearly in recession. There has been recent significant deterioration in labor markets. The only comment I would have on that is that the pace of decline may be somewhat less rapid than in the nation as a whole. Other parts of the country appear to be deteriorating faster, but certainly the Eighth District is not immune, and anecdotal information from many, many sources suggests that credit market frictions continue to be a substantial drag on economic activity.

In the national outlook, of course, we are in the midst of probably the worst of a sharp and significant downturn. For the shorter term, like 2009, I think the Greenbook assessment seems plausible. Longer term, I don't think that the Greenbook assessment is plausible. According to the Greenbook baseline, the federal funds rate remains at zero into 2013, even though, according to the table in Part 1, page 19, real GDP at that point will have grown at rates of 2.6 percent, 4.9 percent, and 5.3 percent for the previous three years, and we would still be

sitting at zero according to the forecast. Unemployment would have dropped 300 basis points, and we still would not have moved. That doesn't seem very plausible to me as a longer-term forecast. Core PCE inflation remains below 1 percent according to the baseline forecast. So this strikes me as a little implausible, and I think it might color our thinking from a strategic perspective. It strikes me as implausible, especially if we pursue some reasonably aggressive quantitative policies. Then I would expect that that forecast would not materialize. So one reading of the baseline forecast would be that, under current planning, the FOMC is not going to be aggressive enough to keep inflation at target over a reasonable time frame, like five years. That is one way to look at it. To do that, you would have to be more aggressive with the quantitative policies. I am going to have more to say about that.

Like President Yellen, I am concerned, as some of you know, about a deflationary trap, and I just want to stress here for a few minutes the global aspect of this. We are not going to get any good news globally over the next six to nine months on the economy, anywhere. A baseline assessment would be that this will force the Bank of England, the ECB, and the Bank of Canada to zero nominal interest rates. They are saying maybe not, but I think that they will all be forced to zero. Of course, the Bank of Japan is at 10 basis points right now. So you will have the G-7 economies all at zero. Absolutely unprecedented. That is a lot of time to be getting bad news on the economy worldwide. That is why I am very concerned about deflationary expectations possibly taking hold, and I would regard expectations as being the main determinant of actual inflation. If that is what transpires, we will face many years in this deflationary trap outcome, and that will be a global outcome. I am very concerned about that, and so I say the key near-term goal is just to avoid that outcome.

How can we do that? Well, much of the analysis that we have remains in terms of the federal funds rate, and much of our own thinking around the table remains in terms of the federal funds rate as defining what monetary policy is. If we are not planning to move off zero for five years, I think that we have to change our thinking and we need even greater focus on quantitative measures in future analysis. Like it or not, we need to see our policy more in quantitative terms so that we can assess possible paths and what is going to be effective. I am afraid that is going to mean talking more about the monetary base, monetary aggregates, reserves, and the balance sheet. The key thing is how much balance sheet expansion we can accomplish before we run into inflation troubles. There has to be some kind of answer to this. Is it \$1 trillion—in which case we are already over and are in inflation danger? \$2 trillion? Maybe \$5 trillion? Maybe \$10 trillion? I don't know where that is right now, and I think we need some kind of quantitative assessment of that.

We did get some of that in a simulation from the staff—a \$1 trillion outright purchase of Treasuries and MBS, with minor effects on inflation according to the baseline model. That would suggest that we have a lot of room to maneuver. I am sure that we could have a long debate about how accurate that is and everything, but that would suggest that we have a lot of room to maneuver, and we could be much more aggressive if we want to avoid this deflationary outcome, which is the real danger over the next twelve months. So I see that as the key to our policy choices. Again, if it is not inflationary, then we can do a lot more. If it is inflationary—if it is going to translate into inflation—then we have to be very careful about it. But we need to get better metrics of where we are on that, and right now it just seems wide open.

I am going to close with the mystery of the round numbers. Proposed expansions of programs seem to come in suspiciously round numbers. Some of them are like \$500 billion;

another number is \$250 billion. Contrast this with the accuracy of the federal funds rate, where we will talk about small increments and out many years into the future. This just shows how much we are used to thinking in terms of the fed funds rate, and we are used to doing the analysis in terms of the fed funds rate. We have lots of mechanisms in place. We have a lot of inexperience when we are thinking on the quantitative side, so we are very rough in our characterization. That is perfectly understandable, but we need to move more and quickly in that direction. It seems to me that we would like to think maybe in increments of \$25 billion or maybe a little larger increment than that and then have some kind of quantitative assessment about why the numbers are what they are and what we think that they will do. That will inform our choices going forward. When we have done quantitative policy in the past, it has often been in terms of growth rates. You would think in terms of money, reserves, or whatever you wanted to think about, and you would talk about a certain pace of expansion, maybe moderating later in the future or something like that. That seems like a very logical thing to do in this situation. So those are some thoughts on the economy and on policy. Thank you.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, Mr. Plosser said he would take a more optimistic view to make the distribution complete. I was going to say that I am going to take the opposite tack, but President Yellen pretty much summarized what I was about to say. I do want to comment on my District, and second, I want to talk very briefly about microeconomic behavior based on my discussions with various CEOs around the country—26 this time. Mr. Chairman, you have the list of who they are outside my District.

First, with regard to our District, like President Hoenig's, our two Districts, I believe, are the only ones that had positive employment growth last year. In the Eleventh District, we

created 192,400 jobs, according to our adjusted data, all in the private sector. That machine has stopped; in fact, we would have a straight line downward if we were to chart it. Manufacturing, chemicals, commercial construction, energy, and transportation services have reported significant drops in demand. Oil and gas prices have fallen, as I think we are all well aware. The rig count has come down accordingly. Just for clarification purposes, the oil and gas industry accounts for 10 percent of our employment; nonetheless, it is a significant factor. Our high-tech industry is under pressure. I think anybody who read the newspaper saw Texas Instruments' recent numbers. They are reflective of what is going on in that sector. Exports, which are important, have been particularly hit hard by declining growth in external markets. We are the largest exporting state. Our exports have declined—interestingly, because of the stronger dollar but also because of the weakness overseas that you mentioned, President Bullard. Our largest industry in terms of employment, our medical industry, is suffering in terms of foreigners who come to be repaired in Houston, Dallas, and elsewhere. So our District, like President Hoenig's District, has now fallen into recession, and we are like everybody else—for the most part (we still are Texans). [Laughter]

I will refrain this time around, Mr. Chairman, from referring to Rube Goldberg, Bennie and the Jets, and Elton John. But I do want to recall what I consider to be a prescient insight of James Madison, who said, "The circulation of confidence is better than the circulation of money." When I speak to CEOs around the country, I would say that confidence is not just waning, it is in a freefall. It is leading me to conclude that, obviously, their behavior is becoming hard-over pro-cyclical, and the consequences are the kind of serious recessionary scenario that President Yellen pointed out and significantly higher deflationary risks. I think that negative outlook, particularly the outlook for deflation, is the 800-pound gorilla or, my having just come

back from the Galapagos, the 800-pound blue-footed booby in the room. And I don't think we should be shy to talk about it.

Businesses are doing what they should be doing—what you and I would do or what any woman or any man who runs a business would do under the circumstances. They are aggressively cutting head count. One of the CEOs I talked to, who employs one of the largest workforces in the country, said he had three drawers. In the one drawer he plans to cut 17,000 jobs, unannounced as yet; in a drawer to the right of that, a still higher number; and in a drawer to the right of that, a still higher number. I asked about the drawers to the left, and he said, “There are none.” Even businesses that are well run and well capitalized are doing, again, what any businesswoman or businessman would do under the circumstances. If they are in good shape, which are few, they are using this as a chance to cull out the kind of legacy middle management they have been waiting to get rid of for some time. Therefore, the bias is to lower head counts. We saw pretty dramatic numbers announced one day or two days ago, and I think that is intensifying, not lessening. They are implementing pay and merit freezes.

They are stretching out their payables. I don't know if this is public or not, but GE has gone around to their major suppliers and asked for forbearance on payables—GE, AAA-rated credit, whom we are assisting at this time. They are aggressively pursuing their receivables, particularly the law firms and other service-sector firms. They are running their plant and equipment at the lowest levels in some time. TI is running its factories at 33½ percent of capacity. The Eastman chemical plant in Tennessee is running at the lowest capacity utilization in over 100 years. You see this, again, across the board. On the rails, there are 100,000 cars that are unutilized. And to go back to my favorite metric of the 70-foot-long lumber-carrying cars, there are 285 miles of unutilized cars of that nature across the rail industry. Very critically, they

are cutting back dramatically on cap-ex. Not a single CEO I spoke to, from Disney to the large manufacturers, is doing anything but. The least amount of cutback that I heard was 12 percent, and the average, I would say, is up to a third.

So, in my view, the Greenbook base case has understated the effect of this dynamic. My outlook is probably the most pessimistic of all of the Banks. I am line number 8, for those of you who are guessing. We all know, by the way, who line number 18 is, because it says, “New York says this; New York says that; New York says this.” [Laughter] Mr. Chairman, basically my conclusion is that the instrument panel we are using—and I say this with enormous respect for the people who do this wonderful work for us—is almost inappropriate to the cockpit of the airplane that we are flying. You mentioned yesterday, Mr. Chairman, that we are dealing with these extraordinary circumstances. I believe that the only way we can proceed is to be as deft as we possibly can be with the kind of programs that we put forward. As concerned as I am about their long-term inflationary consequences, my concern right now is that we are underestimating the potential deflationary consequence to microeconomic behavior and the macroeconomic numbers that President Yellen mentioned.

I would like to conclude with just a comment about the TARP. Every banker I speak to who has taken money from the TARP regrets it. They are hyper-negative. They feel that they have been taken, in the words of a borrower of almost \$3 billion from the TARP. The rules are shifting. They are worried about government interference. It is conditioning them to take actions that, again, are pro-cyclical in a perverse way—disincentivizing management and demoralizing the people who work for those firms. I don’t know what we can do about that, but I am deeply concerned about this drumbeat now of negativism about the TARP and regret for having participated. Mr. Chairman, I will comment on policy later. I thank you for including

my suggestions in the reworded statements that we have, and I look forward to that debate.

Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. I think greater clarity on the TARP and the bank rescue programs is essential, and it is obviously a very high priority for the Treasury and for the government. I just want to comment that the animal spirit theory of the business cycle seems to be getting some resuscitation here. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I will resist the temptation to mark down my forecast right now. [Laughter] Conversations with my business contacts indicate that the economic contraction is proceeding with full force. These discussions were very consistent with the near-term outlook of the Greenbook. There were two noteworthy recurrent themes that I would like to elaborate on—the rapid pace of job destruction and the large uncertainties that private-sector decisionmakers face.

With regard to job destruction, consistent with the national data, all CEOs I spoke with indicated that they are in the process of large-scale layoffs and are studying further job cuts. Much as President Fisher referred to with his three drawers, I did not find a left drawer either. The uniformity of these reports is striking. The best economic report I received was from John Deere that agriculture was still holding up well enough that they are going to do okay, they thought. They are cutting only hundreds of jobs. Everybody else is cutting way more. All of my contacts also say that the easy job eliminations have already been made or are in train. Everyone is now contemplating making more-difficult cuts of valuable core staff. These cutbacks, if they go through with them, will adversely influence firms' ability to respond when we do eventually see the signs of economic recovery. I could go on. I had a story about how

replacement garbage disposals are down 20 percent, which must mean that people are now washing dishes when their disposal breaks down. But I will stop.

Anxiety is the second recurrent theme. Uncertainty and risk aversion are inhibiting economic and financial activity. Obviously, much of this reflects the inevitable uncertainty regarding the depth and persistence of the downturn. But as President Lockhart mentioned, I am also hearing from all quarters that businesses cannot understand the rationale used to undertake government policy interventions. It is not just businesses. A political leader in Illinois, the Mayor of Chicago, whom I will quote, tells me that when he runs into homeowners in the city, a number of them have mentioned that they are wondering where their mortgage relief is coming from. They are thinking about not paying their mortgage. Without a clearer understanding of the rules of the game, they will be more cautious and sit on the sidelines, and they are clamoring for greater clarity. When I tried to ask my directors about what they preferred most—we can't do more with the funds rate—more policy accommodation or more clarity, they clearly chose clarity over policy. Now, in spite of what I am going to say, I do support our current programs, but I am reporting on our environment and the challenges that we are facing here.

With regard to banks, relatively healthy banks that took TARP money are concerned that they will be subjected to future government restrictions. Again, as President Fisher mentioned, I think there is some regret. Many bankers who could have gotten by without TARP injections took the money because they feared that nonparticipation might be inferred as a signal of weakness. Now they are concerned that the costs could be considerably higher than advertised, in part because of political pressure for lending mandates in an economic environment that makes credit quality challenging.

Another uncertainty relates to the configuration of credit policies and potential changes in them. I talked about this just briefly yesterday. In many cases, our lending facilities and government guarantees restore funding sources to some parties but disadvantage others who are outside the safety net protection. For example, I have heard from several durable goods manufacturers who have captive finance companies that provide funding for dealers or customers. Those who owned a bank or had previously utilized commercial paper funding thought that the CPFF and the Treasury guarantees have been helpful. But not everyone is in this position. According to those who were excluded, the separating equilibrium imposes higher costs on them than the previous pooling equilibrium, in which the high costs were shared more by all of them. Similarly, the TALF is expected to be very helpful to some but not others under the current plans. Though our lending programs have been helpful on balance, their differential effects, unfortunately, open us up to political risks. It is difficult to do the cost–benefit calculations at the moment, because the TALF hasn't gotten under way. Once we see how well that is going, I think we will have a better idea of that.

I also hear repeatedly that uncertainty is boosting lending rates and keeping capital sitting idle on the sidelines. Bankers I talked to who have balance sheet capacity are charging higher credit spreads. They all tell me that this change is a return to more normal and prudent consideration of risk and underwriting. So some of that could be what President Yellen's borrowers are experiencing as well. In fact, in reading through the first report to the Congress of the Financial Stability Oversight Board, I saw many of these arguments mentioned there as well. So everyone is obviously dealing with this issue.

A private equity contact mentioned that he raised a fund of \$5 billion this summer—I think it was supposed to be higher than that—but has not made a single investment yet. Given

the scarcity of capital and the high level of risk, he says expected returns must be much higher than before. I wasn't expecting that. This obviously implies that capital injections from these private sources will be very expensive when they are finally deployed. Furthermore, some are concerned that government actions are hard to predict and add to uncertainty. They bring up what happened to WaMu's debt holders. One of our directors explicitly mentioned Governor Kohn's testimony about our hopes for private capital injections alongside public injections. I went back, and it is written very well, but no one could envision that happening without greater clarity on the rules guiding those interventions.

All of these stories feed into our outlook for the national economy. Our forecast for growth is very similar to the Greenbook's. Although my gut instinct is now conditioned to reflexively mark down every forecast I see, cool-headed analysis suggests that risks are a bit more two-sided around pessimistic outlooks. One reason is that the risks surrounding our expectations for growth over the next year or two depend a good deal on the effect of the fiscal stimulus. I think in our forecast we have this helping a bit more than most around the table in the second half. Although I favor fiscal stimulus, I do continue to wonder about the effectiveness of such large programs and the ability to efficiently target large sums to the intended projects in a full and timely fashion. Still, I thought we were a bit conservative in estimating their GDP effects, so the risks to growth over the next couple of years have some upside possibilities.

Our inflation outlook is a bit more sanguine than the Greenbook's. We see inflation falling only to about 1¼ percent in 2011. We are on the high side. Of course, resource gaps are expected to be very large and could pull inflation lower than in our forecast. But predicting inflation expectations seems harder than usual right now. Indeed, there is a remarkable diversity of views about where inflation is headed. As many of my academic colleagues are quick to point

out, the substantial liquidity injections and large government deficits pose an important upside risk to the longer-run inflation outlook. Not only have academics brought up the enormous liquidity and unpleasant monetarist arithmetic, but so have some of my directors and other business contacts. On the other hand, if agents' expectations of inflation focus more heavily on the large resource gaps, we could face significant downside risks as well. So there is a lot to balance out here. President Plosser and President Bullard mentioned this, too. Even Dave Stockton sort of gave us a pass on the fact that we have a lot to chew through here as to what could be a reasonable argument. It is hard to know where expectations balance out, but our base case is that inflation expectations will not decline as much as envisioned in the Greenbook. I don't think this really changes the policy implications. We still need the useful monetary policy accommodation that is really called for in this outlook. Finally, I do support the long-term forecasts. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I wish I could report some improvement in the outlook from my contacts, but sentiment in my District has not shifted. Everyone is anticipating more bad news on the output front, and they are much less confident about when the turnaround is going to occur. Importantly, this is increasingly translating into reduced investment plans. My business contacts who were previously uncertain about the outlook but had not yet reduced their planned investments now seem to be joining the tide of other businesses that are scaling back. Those who had already lowered their investment plans seem to be accelerating their reductions.

I focused my conversations with my business contacts on investment decisions because it seems to be a critical factor separating the relatively optimistic private forecasters from the

pessimists, and my contacts' investment plans are keeping me very much in the pessimists' camp. I guess I am balancing out this end of the table. In particular, I have revised down business fixed investment in my forecast. I am now anticipating a steep decline of just over 20 percent in the second quarter, and this is the aspect of my forecast that changed the most during this intermeeting period. I am now expecting to see a reduction in real GDP of 0.8 percent for 2009, the same as the Greenbook. Potential growth in the medium term might be damped by some of these investment reductions, but I have not yet revised down my estimate for potential over the five-to-six-year period, which I put at 2.7 percent.

I do see disinflation pressures continuing, and the gap remains elevated in my forecast. But the pricing reports from my business contacts remain uncertain. This uncertainty does not surprise me, given that the volatility we have seen in prices has been quite large. But at this point, some people are just as worried about inflation as they are about deflation, despite the latest headline inflation data. Obviously, they are looking at some of our longer-term policy decisions. Long-term inflation expectations in the Michigan surveys that we discussed yesterday, though, do not seem to be shifting either up or down yet. Nevertheless, I do expect weak demand to gradually lower inflation rates to levels that are going to require further monetary policy actions. My projection reflects this. But with inflation expectations in my projection unchanged, unlike the Greenbook, the decline in core inflation in my projection is less persistent than the Greenbook, and my outlook for core inflation in 2011 rises to 1.4 percent.

In my view, our monetary policy needs to remain accommodative for a time to better insulate us from deflation and zero bound problems. I am one of those participants who did change their perspective on the longer-term PCE inflation objective. I had been in the

1¾ percent camp for some time, but because of my concern about deflation and zero bound problems, I have raised that longer-term projection to 2 percent for PCE inflation.

It is difficult to feel very confident, as others have said today, about characterizing the balance of risks to the outlook in this extremely abnormal environment. However, I cannot help but think that the risks to both economic growth and inflation are unbalanced to the downside. Without data revealing some stability, it is hard to argue against more downside risks, as others have commented this morning. Businesses are far more focused on survival than they are on new opportunities. On the inflation front, the stability of businesses' and households' inflation expectations, as we currently see them, may not remain, and so the downside risk to inflation remains.

Regarding the longer-term projections, they were proposed by the subcommittee to help us with our communication with the public, and I have enthusiastically supported all of the recommendations and the steps in this direction. I also support releasing our long-term projections from this meeting. These projections should help the public solidify their expectations for economic performance, especially when our current troubles have abated. I am also encouraged that there is strong agreement among the participants, as Brian reported yesterday, about our expectations for economic performance five to six years out. So I think releasing them will be helpful. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Anticipating for a moment the statement in the policy round, there is a proposed sentence that says that the Committee anticipates a gradual recovery later this year with downside risks. I am listening to the discussion about near-term pessimism and concern and uncertainty, but then you mentioned your forecast of minus 0.8 percent for 2009, which arithmetically suggests that you do think there will be positive

economic growth later in the year, and I think many of the projections that we got were in the same general ballpark. I just want to flag that as an issue for the next round, which is whether we are comfortable talking about positive growth later in the year or whether we think we should just remain agnostic on that. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. Like the Greenbook, the Boston Fed forecast has the unemployment rate well above the NAIRU and the inflation rate uncomfortably low throughout the forecast period. Because our view is that inflation is more sensitive to significant excess capacity, our forecast implies an even greater risk of deflation than the Greenbook's forecast. Even with the substantial fiscal stimulus and recent monetary policy actions done to date, our outlook implies that it will take more than five years to return to full employment and an inflation rate of 2 percent or more.

Housing continues to be a key component of the problems. Falling housing prices reduce the wealth of consumers, contribute to problems at financial institutions, and provide little incentive for residential investment to improve and so are a significant contributing factor to our dire outlook. Until housing starts stabilize, I am skeptical that equity prices will show the improvement embedded in the Greenbook forecast. The rising unemployment rate will be placing further pressure on housing but will also be a contributing factor in weakening commercial real estate, which a number of people around the table have highlighted. Commercial real estate has held up better in some locations, such as Boston, but even those locations are beginning to soften. With little credit available and vacancy rates climbing, my contacts with real estate developers have become increasingly depressing. In Boston, commercial real estate has also been buoyed by building by hospitals, colleges, and universities.

However, losses experienced in endowments have caused the construction to be halted unless it was fully funded and already started.

Banking continues to be stressed. Large banks are experiencing large losses in their investment portfolios as highly-rated securities continue to sell at very steep discounts, if they sell at all. They are also likely to experience substantial increases in loan-loss reserves, which appear to be lagging the problems. The economy and financial markets remain susceptible to further bad news emanating from the banks. Despite monetary and fiscal actions taken or likely to be taken soon, our forecast indicates that, without more-significant actions, unemployment rates will remain too high and inflation will remain too low for an uncomfortably long period of time.

Regarding the long-term projections, I do support publishing those. I would note, as President Pianalto did, that there does seem to be an increase as to where people are targeting inflation. It might be good to update some of the staff work that was done on what the probability of hitting the zero lower bound is and what the probability of deflation is. It does seem that our targets have been somewhat based on taste rather than focusing on the tails of the distribution. I think we have learned something about the tails of the distribution, and it might lead to a more informed discussion if we discussed in more depth what the probability is now that we have had some recent evidence of those two outcomes. Thank you

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, I think there is little question that the immediate prospects for the economy are negative. It is going to contract in this quarter; certainly my guess is the second quarter and possibly into the third. But in response to your question, I do think there will be beginnings of the recovery in the second half of the year,

precisely for the reasons spelled out in yesterday's presentation: the dynamics of the inventory-adjustment process, a gradual further improvement in financial conditions, the ebbing of weakness in housing activity, and the consequences of stimulative policies, both monetary and fiscal. So I do think that there is a reasonable probability—I guess this is going to make me the optimist at the table—that something like the Greenbook forecast is going to be realized over that time frame.

I know there is a lot of negative sentiment around right now and a lot of negative rhetoric. You know, that is part and parcel of a recession. I am not suggesting that we take a lot of comfort from that, but I do think we should keep it in perspective that it goes with every recession that I have observed. They can say, "Well, this time we really mean it," [laughter] but somebody gave me an article from *Time* magazine back in 1991, and they were describing that recession just like this one. So we should try to bear that in mind.

That said, of the alternative simulations, the one that really caught my attention was the "more financial stress" scenario. I do think some risks are there. They are associated mostly with uncertainty about programs and prospects. I do think that the establishment and operation of an aggregator bank, assuming it is done effectively, would be a good idea. I think it might even be advisable to go further than that, using the Swedish example, and close down some large, insolvent institutions. I realize that is probably very, very difficult and possibly risky, but the benefits could be very high as well in reducing the uncertainty that seems to be plaguing the financial sector and a good number of its customers. Finally, I do support the release of the longer-term forecasts. I think that they provide additional information of value and that they will help to anchor expectations.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. I'll be very brief. Our indicators and the anecdotal reports from the Fifth District are quite consistent with the national picture and the picture that emerges from the reports that we have heard around the table from the Reserve Bank Presidents so far today. There are only three nuances that I would take note of. One is recent declines in the wage indexes in the manufacturing and services areas in our District—just a couple of months of decline but potentially meaningful. Second, on the other side, expected prices received in manufacturing have swung decisively from negative territory in November, more than minus 1 percent, to positive territory, above 1½ percent. Third, a fairly significant decline has occurred in the last two months in the index for expected capital spending in manufacturing.

On the national level, our outlook is basically aligned with the Greenbook, with a couple of exceptions. I am a bit more optimistic about the pace of growth when the recovery begins. I expect inflation to return above 1 percent later this year and to get to about 1½ percent rather than sag in the out years. I do not think we are going to want to keep the nominal rate at the floor for nearly as long as the Greenbook expects. I am thinking liftoff is likely sometime in 2010 rather than in 2012.

I endorse the statements made by Presidents Evans and Stern and others about the depressing effect of the lack of clarity around government credit policy. Capital injections that have occurred so far and prospects for future capital injections seem to have induced a tipping dynamic by which we are at a corner solution—there is no private equity coming in for fear of what future capital injections might do to them, and so we are left with the public sector being the only source of prospective capital. Looking ahead at the strategy, I think we want to get to a point where the banks are healthy, which means they can raise equity privately. That transition

is the hard one to solve, and I endorse the ideas that President Stern just alluded to. I would also say that I think public statements about our potential future credit programs and the expansion of our programs to asset classes could well be a drawback in that they add uncertainty about where we are going to come in next. I will cede the rest of my time to my past self. [Laughter]

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. As noted around the table, the economy continues to contract at a rapid rate, and there are few signs that the pace of decline has slowed. That said, clearly there are some positive elements in aspects of financial conditions, such as interbank funding rates. Corporate bond and mortgage rates have eased somewhat since our last meeting. Oil prices have fallen a lot over the last few months, and that has bolstered household real income. Moreover, the political uncertainty about what is next should lessen now that the Obama Administration has assumed power. Over the next few weeks, the Administration is likely to pass its fiscal program and announce how it plans to utilize the second tranche of TARP monies. That should lessen some of the uncertainty in financial markets about the public policy response.

But these developments should not comfort us much, if at all. In my view, the risks to the New York Fed forecast and the Greenbook forecast, which don't differ very much, remain very much to the downside, and we should emphasize that when we motivate our response to the crisis. In particular, in addition to the labor market woes already cited, the banking system is probably in worse shape today than it was last fall, despite the injection of hundreds of billions of dollars of government capital. Moreover, the ability of the federal government to adequately recapitalize the banks as loan-loss provisions mount is in question, impaired by the question of whether the size of the second TARP tranche will be big enough to do the job. A good portion

of this is going to be used for other areas, such as mortgage foreclosure mitigation, and there are exceedingly poor politics associated with giving more resources to aid the banks, making it problematic whether a third TARP installment, which might be needed, can actually be secured politically. Inadequate bank capital is at the core of our problems, and I am not sure we are going to be able to solve this problem quickly or definitively. It would be much better to do too much in terms of capital injection, taking back that excess later, than being a day late and many billions of dollars short as we have often seemed to be throughout this financial crisis. Adequate capital in the form of tangible common equity is essential to restore confidence, improve credit availability, and restore good market function.

The second issue I would like to talk about is household net worth. It is contracting at a rate exceeded only in the Great Depression. We should not understate the size of the blow to U.S. households, for households' wealth has been evaporating at an alarming rate at a time when the personal saving rate has been unusually low and the safety net had been whittled back. That is not a good combination. This is the first big economic downturn in which defined-contribution plans, which are immediately affected by changes in financial asset value, are the dominant source of retirement income for many households beyond Social Security. In the past, defined-benefit plans with a fixed monthly payment insulated retirees and their families from changes in financial asset values. Moreover, the decline in wealth may not be over. Although I will not predict the equity market, the Greenbook forecast of a 12 percent annualized return over the next two years could turn out to be optimistic. After all, if bank balance sheet constraints are causing risk premiums to be unusually high, couldn't this also translate into the risk premium for the U.S. equity market remaining high with lower equity prices at least over the near term?

Finally, even if equity prices do better, it certainly looks as though housing prices will continue to fall for another year or so, until housing inventories are brought down to more-normal levels.

Third, the U.S. recession is occurring in the context of global weakness. This means that the trade sector is not likely to provide any significant degree of support here or anywhere else. I think this is very important, especially in the context of the staff's analysis of the Reinhart–Rogoff consequences of past crises. The staff forecast showed a lesser decline relative to past crises and what has happened historically. Yet in those past crises, individual countries had the out of depreciating their currencies and having trade improvement. We do not have that out this time, and I think that just makes me a bit more nervous about whether our experience will be more in line with those historical experiences.

I know the Greenbook and our own modal forecast assume that the recovery will begin in the second half of the year. I hope that is true. But it strikes me that, until our banking system is repaired, the risks lie clearly to the downside of such a traditional-recovery, V-shaped forecast. At a minimum, the degree of uncertainty about the outlook is unusually wide, as described in the Greenbook and illustrated by the width of our fan charts. We are well outside the range of normal experience. In such circumstances, model-based forecasts probably should be viewed with somewhat greater skepticism, and the Greenbook acknowledges that. Under these circumstances, the Federal Reserve needs to continue to be aggressive in providing liquidity and balance sheet capacity to the private sector. The goal should be to ease financial conditions as much as possible in the current environment, subject to the constraints imposed by our legal authority, subject to protecting ourselves against credit risk and the issues posed by further rapid balance sheet expansion on our exit from our current suite of special liquidity facilities.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I find myself within the central tendency of Committee projections, maybe including the Philadelphia staff in that central tendency.

[Laughter]

MR. PLOSSER. They will be pleased.

MR. KOHN. But there is not much comfort in numbers, is there? I think I agree with everyone that data since the last meeting indicate that the steep decline in spending and production is ongoing. Employment and production have been cut back especially sharply as businesses are adjusting to the collapse in demand that we saw last fall by reducing inventories and head count very, very aggressively. Final demand is also continuing to contract. Consumption, business equipment spending, and housing are all falling rapidly, and commercial construction is on the cusp of pulling back in a major way. There is really no sign that the pace of decline in final demand is slowing.

To some extent, the ongoing drop in final demand reflects the playing out of the downward shift in demand and the tightening of financial conditions that we saw last fall. That is, we are seeing the kind of multiplier–accelerator effects that we saw before on consumption, working through declines in jobs and income, now on business capital spending, working through expectations of weaker sales going forward. I think I saw an accelerator chart yesterday. We are also feeling the lagged effects of tighter credit in the fourth quarter and sharp declines in equity and housing markets then. Now, presumably these sorts of downward pressures on spending from past real and financial shocks would diminish over time, though it could be quite some time before they play out.

Unfortunately, I think that, on top of the playing out of those effects, there are some further new pressures on spending coming into play. Further declines in prices of housing and

equity in the first quarter will weigh on consumption going forward, and equity prices were lower than what the Greenbook had assumed. The Senior Loan Officer Opinion Survey suggests that the tightening of credit by banks is continuing, and I am sure that the mounting layoffs are increasing the fear of job loss and continuing to depress, if not depressing even further, consumer confidence and sparking pullbacks in spending. We have also heard many reports this morning about businesses becoming much more cautious. Finally, as the Chairman and others have remarked, the remarkable widespread decline in economic activity abroad is just holding down demand all over. It is reducing our exports. No part of the world economy is providing support to global demand.

Despite some signs of improvement, financial markets remain severely disrupted and fragile. Outside the GSEs, securitization markets remain virtually shut down. Credit to any but high-quality borrowers is still very expensive. For example, the yield on BBB corporate bonds, which would cover the median business, is about 2 percentage points higher than it was in the first half of September. That is a pretty sharp increase in the cost of capital. I have been especially worried, as others have remarked, about some of the developments in the last few weeks, some sort of backsliding in markets. We have seen a further drop in equity prices and a strengthening of the dollar pointing to somewhat firmer financial conditions at a time when we need financial conditions to be easier. The further evidence of the vulnerability of banks and other intermediaries has been especially concerning. Losses by these guys were much larger than people anticipated, even people with pessimistic views. CDS spreads have risen in response to the sizable drop in stock prices. LIBOR has backed up again a bit.

We have said all along that part of the adjustment to the new steady state in financial markets will involve more credit flowing through intermediaries and less through securities

markets. But intermediaries remain under substantial pressure to deleverage, shrink assets, and conserve capital and liquidity, and there are lots of losses to come even under the moderate recession scenario of the Greenbook. The staff estimates that there are about \$1 trillion of losses coming from the third quarter on, with about half of those at U.S. banks and thrifts. So there is much more pain to come. In this environment, both perceptions of risk and aversion to risk will remain heightened. Banks will be capital-constrained and worried about their survival, and credit will be tight for some time, even with a well-designed TARP that has taxpayers taking tail risks from lenders through capital insurance and asset purchases.

Still, I do have a rebound in the second half of the year. I do not know exactly what quarter it will occur in, but I do think there is a reasonable hope. That is my modal forecast, and I think it is reasonable. There are a couple of reasons for that part of it. It depends on government actions. This massive fiscal stimulus is one obvious thing, but I also think a well-designed support package for banks that does reduce uncertainty and builds capital and further Federal Reserve actions that work to ease financial conditions will at least help to stabilize markets and stop the continued erosion of credit availability and perhaps begin to turn things around with slow improvement. I think that at least we can stabilize things.

There are some natural market mechanisms in play as well that will help to bring the economy back. The drop in energy prices is certainly building real incomes, and the fall in house prices and lower interest rates are increasing affordability and, I think, will ultimately spur purchases. I think demand curves do slope downward and to the right eventually—at least that is what I learned in Economics 101. [Laughter] I am waiting for it to work in the housing market. The initial negative effects of that initial pullback in spending, the multiplier–accelerator effects, and the tightening of the fourth quarter will eventually fade. Businesses did come into this

downdraft with inventories under good control, and their prompt responses in cutting production and employment mean that inventory and staffing levels will soon be comfortable even for very low levels of demand, and production and hiring can be raised promptly in line with demand.

In my forecast the unemployment rate did get to 8½ percent. With that slack, inflation continues to drop, and even with long-run inflation expectations well anchored, I had total and core PCE in the 1 to 1¼ percent range in 2010–11, well below my objective of 2 percent. I do think that risks remain to the downside, mainly from financial fragility and the possibility of tighter credit conditions, lower equity prices, steeper declines in house prices, et cetera. It could take longer than I have assumed for the financial situation to stabilize. In that environment, there is a risk—and not a trivial risk—of a deflationary spiral taking hold with even lower inflation expectations feeding high real interest rates with policy stuck at the lower bound.

In that regard, I, like others, support proceeding with our long-run projections. I think they will help to clarify where we want things to go in terms of inflation and could be especially useful in our communication about inflation when it seems to be getting below where we want it to go. They might help a little around the edge to anchor inflation expectations. I would not expect a huge effect, but they could help a little when we really need it. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Let me begin with financial markets before turning to the economy. On financial markets, I will give a few points that I have described in my notes as “tenuous improvements in market functioning,” but I really think that I will describe them as feigning optimism. So let me feign optimism with three points on financial markets.

First, bridge financings: We saw earlier this week a very large bridge financing to fund an acquisition. I would say that bridge financing by its very terms probably could not have come together 30 or 45 days ago. There are a couple of other very large deals being contemplated that require bridge financing, and I would say this bridge looks different from bridges of the last cycle. I would not call it a new equilibrium, but I would say that neither the acquirers nor the lenders/underwriters would have been prepared to agree to terms like this. This is a bridge that is not very good. It is a bridge that gets expensive in a hurry. It is a bridge that could give way. But buyer, seller, and underwriter came to terms here; and whether or not this is a new equilibrium in funding transactions with some assurance that there will be cash for a period of time if the acquirer does not lose its rating, this and other factors suggest that at least there is a new negotiation happening. So I would say that it is a positive sign.

Second, trading businesses: The firms that are left and that still have meaningful trading businesses had fantastic Januaries. Why did they have such good Januaries? There is just not a lot of competition left. Bid-asked spreads are wide. A lot of volatility is now presumed to be built into the models and into traders' behavior. I would say that, if you are still in the trading business and you are looking for sources of profit and good news to get you through this cycle, some are there. The capital intensity of these trading businesses is lower than it was before. The necessity for firms to commit capital to be profitable in trading is lower. So I would say, again, that this is some, tenuous, improvement and may be a new equilibrium there, which is good news for some of the survivors that are in trading.

Third, and I think probably the most essential point, is about the prospects for large, internationally active financial institutions to raise capital. There is a good chance that in the next week there will be a large non-U.S. internationally active financial institution that tests the

capital markets for a very large capital raise. It is likely to be a rights offering. It is likely to be at a very significant discount to its current share price, but I would guess that it gets done. If it gets done, that says that there still is private capital at some price. Maybe it is a price that existing shareholders don't like. Maybe it is a price that companies don't want. But if those private markets are open for the relatively strong outside the United States, I would say that is encouraging and we need it. The last 30 capital raises by financial institutions aren't just losers. They are big losers, and it is hard for investors and others to be opportunistic when they see that track record. So I think the success or failure of these financial institutions might well be tested in the next week—when we see a pretty good institution give it a real shot. So that's my optimistic pitch.

Now words of caution: As Trish said yesterday, I think that we are back at maybe the most precarious state in financial markets that we have been at, at least in a regularly scheduled FOMC meeting, and I think that this is going to be an awfully consequential few weeks. It is true that risk aversion has been reduced, but only a bit. We have seen a bit of an unwind in the flight to quality and a bit of an unwind in the flight to the most liquid securities, but, boy, I would be hesitant to overstate the improvement here. Even if we look at high-yield markets and we note that they are off their peaks, there are still expectations of defaults that are near Depression levels. I want to take comfort in some of these data, but I think it is probably just a bit of a bump from the darkest, scariest days that we had in the prior period.

Second, I would note that share prices of large financial institutions broadly and regional financial institutions have all gotten crushed in 2009 so far, and that has raised real questions about the solvency and durability of their franchises as publicly held entities. So the question remains: How have credit markets seemed to improve along the lines that Trish and Bill have

mentioned, while we have had this huge markdown in the valuation of these companies? Again, as Trish noted yesterday, I think the answer is us, the Fed. Sure, we have seen some improvements in markets that we haven't been directly involved in, like A2/P2. But the Fed's facilities have been primary in support and have been a partial bulwark against broader financial institution weakness. So in some ways I use that to reconcile the discrepancy between improvements in market functioning, at least in the very short term, and the miserable news that we have had on broad financial institutions.

Third, a note of caution and concern: There are still a lot of 50-cent dollars out there, and no one seems to want to buy them. That these arbitrage opportunities are still available in markets that don't require great sophistication and that people are not taking them up should tell us that something is very, very wrong. Only those buyers who have longer-term horizons, risk neutrality, and balance sheet capacity can participate in these markets, and those are criteria that are not found among most folks that could partake. So these 50-cent dollars might be 60-cent dollars, but they are still out there, and that should be telling us that things are in pretty tough shape.

Finally, and maybe of most concern about the state of financial markets, is the large and increasing number of financial institutions, including many that are most systemically important, that are perceived by markets to be effectively insolvent or nearly so. Single-digit share prices for a large class of financial institutions do not strike me as a new equilibrium. And to avoid the theological argument that we had a bit of yesterday on whether this is an equilibrium or disequilibrium, I will tell you that I do not think it is going to stick around for long. If you think about these financial institutions that are trading at \$3, \$5, or \$7, I am not sure I understand how they can continue to get through the next 12 months in that state. I do not know how they can

run their businesses, how they can incentivize their employees, or how governance will hold with the specter of continued losses and possible nationalization. My sense is that this is not a sustainable equilibrium, and I fear which way it breaks. I think the specter of nationalization may delay public market recapitalization of many of these firms, though I expect that the new Administration will do all it can to provide clarity. As the real economy continues to deteriorate, I suspect that it will take a couple of shots at this to “get it right.” And this single-digit share price might well continue to limit the efficient provision of credit to the real economy and continue to hinder financial flows. So I am skeptical in a tumultuous world that these single-digit share prices are sustainable for financial institutions, and, again, the way in which they are likely to break is pretty disturbing.

So what does all of this mean for the real economy? Others said it more extensively than I will, but the economy is in terrible shape. Activity is falling fast with little indication of stabilization even at new lower levels. As I think Dan described yesterday, the nature of this turmoil, which I define more as a breakdown of the global financial architecture than some housing-led recession, is likely to have a recovery period that is slower, bumpier, and tougher than most recent recessions would suggest. As a result of all that, I am more negative on GDP and employment prospects than the Greenbook forecast is, in both the near term and the medium term.

Mr. Chairman, with respect to your question about the second half, I think we should see, arithmetically and because of the inventory issue, a slowdown in weakness, but it does not look to me anything like a real recovery. I am also skeptical of near-term GDP growth that is expected from the stimulus package. I don't expect foreign economies to perform as well as the Greenbook says or to recover even as quickly as the United States will, as it no doubt ultimately

will. I expect net exports to be less supportive of GDP growth than the Greenbook suggests, and I read foreign exchange markets as being supportive of the view that advanced foreign economies will actually underperform the United States in the period ahead.

A couple of final concerns before I turn to inflation. In a world like this, where the model of capitalism that has come from the United States is now being doubted—maybe even ridiculed in some corners of the world—the risk of big policy errors everywhere, not just here but everywhere, is higher. The U.S. weakness in the story line—that somehow this started in the United States and this is the fault of the United States—makes it harder for us to stop bad policies from being undertaken outside the United States. So with all of that, I am quite uncertain about the timing of improvement in financial conditions. The decision on the use of TARP funding is thus likely to be critically important, and this solvency overhang is likely to be harmful to GDP in the balance of 2009. I think that the framing question for the new Administration should and might be what the official sector can do to help reopen capital markets so that real common equity that these institutions need can come to bear. What sorts of risk insurance do we need to provide? I am not sure how the real economy can get traction until some of those things are answered.

Finally, on the inflation front, I will be brief. The inflation picture, of course, bears watching, but I am still skeptical that deflation risks rank as high as many of the other risks that I and others have described today. Inflation expectations remain key and obviously should be a focus of our continued discussions here.

On the long-term projections and the recommendation that comes from the subcommittee, I support it. The benefits, at least in my view, will be felt more inside this room. I think it does help us communicate and understand one another's views. The idea that somehow

that is going to have anything more than a modest near-term effect on how the world thinks about inflation and thinks about our behavior probably overstates, but I do think it is, on balance, a step in the right direction. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. In looking at the banks and talking to the bankers, I started with the fourth-quarter earnings announcements. The first part is what they consider to be real, which is the higher loan-loss provisions. In this, unemployment has led to an acceleration in delinquencies that goes across all consumer products. The reduced activity in the cash flow of businesses has resulted in higher C&I delinquencies.

Vacancy rates and the lack of takeout financing are creating problems in commercial real estate, but I am still not sure that is as big a problem as maybe it looks, certainly not as much as in residential, with the ability to renegotiate those loans and to continue the cash flow on them being better than it has been in residential. Appraisals took another leg down, which has heightened loss severities. When you combine that with lengthening real estate marketing times, particularly for home equity loans, there is less willingness to buy through the first mortgage, and so the junior liens are becoming total loss rather than partial recoveries. I would point out that the same pessimism about future conditions that drives the reserving also drives the underwriting conditions for future loans, and that is why they are continuing to tighten.

Not so real in terms of the numbers that showed up in the fourth-quarter loss are the model losses and goodwill impairment in other than temporary impairment, particularly on trust preferred securities; there is something just deep in the DNA of bankers that they do not believe. They are used to marks on credit, and they believe in marks on credit, but they do not believe in the marks based on market conditions. So if you look at these securities, if they were accounted

for as a troubled debt, they would be written down to 90. If they are accounted for under market conditions, they are written down to somewhere between 30 and 50. In the minds of the bankers, this is a portion of their capital that will return when ultimately their projections of future cash flows are proved to be correct, if they can live that long.

The loan charge-offs would be tax deductible, but the security write-downs are not tax deductible. So when asking them about whether or not they would sell these securities at their current marks, only those who thought they might get some tax advantage would be willing to sell them at the current marks. In terms of goodwill and these write-downs, I really had not focused on how the goodwill-impairment process works. It is a two-step process, and it appears that now, if the current fair value of an acquisition does not equal the goodwill amount—which means that the market conditions for bank equities are causing the goodwill to be written down—they are not really concerned about analysts because the analysts are, as we all know, focusing on tangible capital. But they are concerned about the headline risk as their customers and potential customers read about huge losses in the institutions. Finally, mortgage-servicing rights—the one negative consequence of lower rates is that the expected refinance then reduces the value of mortgage-servicing rights.

A number of you have mentioned the TARP money. In this case, there were several who were approved for capital but elected not to take it, much to the annoyance of the Treasury. Their reasons were that their capital levels were high or adequate already. They could not see the loan demand in the future and were concerned about additional conditions that might be imposed by the Congress. Many of these had time to actually see the introduction of the Frank bill before they had to make a final decision, and that definitely informed the decision. Their concerns are what you would expect—that lending quotas would be imposed and that would

actually increase their risk; that the dividend restrictions would make it more difficult for them ultimately to raise private equity; and that compensation restrictions would affect what they view as strategically important incentive plans. So I do not think that any of them would be particularly inclined to take another voluntary program.

With the smaller banks, the mutual and the subchapter S banks just saw a posting of the terms for them for CPP. This process is taking a lot longer to work through all the different parts of the system than we might have realized. Some have been approved but haven't yet received their money. Even on the TLGP, the FDIC temporary liquidity guarantee program, many of them are reporting that they are getting slow to no response from FDIC. They were planning to use these guarantees for lines from upstream correspondents, and they are just not getting any answer. In terms of liquidity, all the banks are seeing good deposit growth. However, some of this growth has to be viewed as temporary, given that there is a year-end expiration of the unlimited demand deposit insurance. In normal times, you have a parking of risk-averse assets in bank deposits, and those can move out just as quickly as they came in. Some are still concerned about additional funding, as well as the examiner expectations or the FDIC additional charges based on expanding nondeposit sources, such as Home Loan Bank advances or brokered funds. Some are holding large amounts of excess reserves as an actual or perceived cushion against funding sources pulling away, as well as a demonstration of both liquidity and capital strength.

In lending, most of them do report weak loan demand, and those that are reporting stronger loan demand seem to be in markets in which the larger players are pulling back or are involved in mergers. Those that are seeing loan growth don't initially even see the income boost from that as they have to establish initial reserves on the net growth. To counteract the angry

political climate, banks are actively highlighting in their press releases all of their new loan fundings, even the gross fundings. Advertising for consumer and small business loans has improved application volume, but the quality is low, which leads to lower approval rates on all types of credit. In terms of construction lending, the projects that aren't in trouble are simply finishing out the current phase and stopping, and this applies even vertically. One banker reported a high-rise condo project that the builder just capped off at ten stories and decided that was the end of the project. There is a bit of lending to take over distressed projects of others. There is significant deterioration in the creditworthiness of businesses and consumers, with at least one banker expressing concern about the predictive capability and the stability of credit scores in the current environment: Businesses that are being affected by rapidly changing asset prices go from positive earnings through the third quarter to chapter 11 by the end of the fourth quarter.

All new loans are priced to higher spreads with floors in them. The range that I heard is 4 to 6 percent. So as we look at what is happening to prime, I don't think that is necessarily what is happening to rates at which anyone is actually borrowing. The big exception to weak demand is in mortgage applications, which are at record levels. There aren't as many competitors out there, and as with other credit types, the approval rates are lower. Appraisals may be a problem, and it is mostly refinance, but there is a trickle of purchase activity. They tend to believe that the purchase activity is currently being deterred by a fear of job loss and expectations for more government incentives down the road. The rate drop also came at a seasonally low time for purchasers. Then the last piece is the need to sell an existing home, and they may be upside down in the existing mortgage. There are reports of contracts sometimes five deep, of the

contract waiting for sale of an existing home that is waiting for sale that is waiting for sale. So if at some point the first sale can occur, it will actually multiply itself in many cases.

Finally, banks are actually getting quite creative in growing or strengthening their loan portfolios. There is a network of banks in Nebraska that are actually co-underwriting as well as participating in larger credits. There was a bank that had offered a 7-year or 10-year fully amortizing mortgage, trying to take advantage of the new propensity to save, and actually has seen great take-up on it from borrowers who want to use the lower rates to pay off their mortgages sooner rather than to lower their payments. Another one is using the sales force to go out and offer proactively to restructure business and commercial real estate loans, say, for twelve to twenty-four months of interest only to improve the cash flow and at the same time increase the rate on the loan. Another bank is using half of its production teams to go out and sell problem assets to private-market investors who are in their market and familiar with the projects.

The bottom line—the community and regional banks are finding ways to survive; in fact, three of the banks had record years on the upside for 2008. But it is really ugly out there. So while there are some signs of recovery in markets, they are outside the banking system. I think that it is going to be incredibly difficult to stimulate the economy through the programs that involve bank lending. It is going to take more-direct programs, such as mortgage-backed security purchases or the TALF to act as stand-ins for the securitization markets. In fact, I believe this is the time to expand the range of mortgages that are eligible for GSE guarantees to include jumbo and higher loan-to-value mortgages as a way to replace the currently closed private-label markets. Even if the government takes the problem loans off bank balance sheets, we will still ultimately need to liquidate much of the underlying collateral, and that is going to require more lending than the banks can currently fund. We could also find ourselves at some

point using the discount window in more and more of a Home Loan Bank way for core funding rather than as a lender of last resort to fund the nonmortgage lending.

I know that all of these suggestions go against the grain of almost everyone here, but frankly, capital alone just will not restart bank lending. I think the banks are going to pull back, repair as best they can, and create the earnings to rebuild their own capital until they can begin to attract private equity. President Bullard yesterday used a phrase. He said that people do the best they can given the constraints they face, and that is how I would title my remarks. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Thank you all very much. Debbie informs me that coffee is ready. Why don't we take a 20-minute break. Thank you.

[Coffee break]

CHAIRMAN BERNANKE. Why don't we reconvene. I can start by offering a summary of the discussion around the table, which was informative as always but fairly uniform this time. The intermeeting data, as we have seen, indicate a very sharp contraction, both domestically and abroad, which reflects in large part the effects of the intensification of the financial crisis but also the increasingly powerful feedback loop from the economy to financial conditions. Many people noted that the financial conditions remain very fragile. Consumption, employment, and production indicators suggest that the pronounced contraction in activity in the fourth quarter is likely to continue through the first part of 2009. Participants noted that the slowdown is very widespread across sectors. Some participants expect a return to positive economic growth later this year, citing such factors as fiscal policy, lower oil prices, inventory adjustments, government efforts to stabilize the financial sector, and the possibility of improving confidence. However, uncertainty remains high, and risks are to the downside as sentiment is

currently very depressed. Moreover, based on experiences with other financial crises, the possibility of a protracted slump or L-shaped recovery remains significant.

Some financial markets, including markets that have received Fed support, such as the money and mortgage markets, have shown modest signs of improvement. However, bank losses for the fourth quarter were greater than markets anticipated, and many institutions remain under substantial stress. Bank loans are declining with tighter terms, falling credit demand, and a lack of creditworthy borrowers. Very tight credit conditions are, in turn, affecting both households and firms. Declining asset values are also affecting wealth and confidence, including declines in defined-contribution pension plans. Whether the new government initiatives to stabilize banking are successful will be an important factor in the outlook.

Consumers continue to retrench, cutting back as balance sheets are repaired and precautionary saving rises in an uncertain environment. Employment declines have been large, with firms projecting further job cuts ahead, and there are wage and salary freezes occurring. Fiscal stimulus could also provide a boost to consumer income and support state and local spending, which is currently contracted. There has been little indication of stabilization in the housing sector as house prices and building activity continue to decline. Nonresidential construction is likely to fall as financing dries up and fundamentals weaken. A number of participants expressed concern that commercial real estate could follow the path of residential real estate. Other investment has also contracted in light of prevailing uncertainties, including uncertainties about government policy, tight credit, and low capacity utilization. Lower commodity prices have affected drilling and mining activity and to a lesser extent agriculture. Exports and imports have both fallen sharply, reflecting both domestic and global slowdowns and possibly lessened availability of trade finance.

Inflation has fallen significantly and looks likely to be low in the medium term. There is some risk that inflation could fall below levels consistent with good economic performance, and some expressed concern about a deflationary trap possibly at the global level. However, maintaining stable inflation expectations remains very important. Currently there appears to be quite a bit of diversity in the public's inflation expectations, including concerns about both deflationary and inflationary outcomes. That is just a summary of comments I heard.

I do not have a great deal to add on my own. Let me make just a few remarks. Obviously, I share with everyone the observation that activity has fallen very rapidly, perhaps not much more quickly than expected at our last meeting but still confirming the very substantial effects of the financial crisis and the overall tightening in the credit markets. A somewhat bigger surprise is the decline in global economies, which has been more severe than anticipated. On a global basis, this seems very likely to be the worst postwar recession, and the global declines will make it more difficult for the U.S. economy to recover.

As others have noted, there have been some marginal improvements in a few financial markets, and the Fed's programs, at least in those markets, seem to have had some benefits. We have seen a little improvement in corporate bond markets as well. The most important news on the financial side since the last meeting, though, has been the worse-than-expected results in the banking system, the fact that we have had to go back and address instability in two of our largest four banking organizations, despite the large injections of TARP capital. It is indicative of the tremendous concerns about the stability of the banking system. The continuing credit losses pose a real challenge both to the banking system and to efforts by the government and the Treasury to restore stability.

My general view is that, although fiscal policy could be helpful and will probably provide some impetus later this year and next year, we may see something similar to what we saw in the spring, which was a temporary boost and then very little sustained recovery unless we can get substantial improvement in the banking situation. I share the same uncertainties about the prospects of recovery or at least the beginning of positive economic growth later this year that others have. The Greenbook case relies fairly heavily on inventory dynamics. Currently inventory liquidation is subtracting from growth, and so stabilizing final sales at zero by midyear, which seems like an easy task, would be sufficient to give us some positive growth. That said, it is probably not such an easy thing to ensure that final sales stabilize. We should expect to see continued declines in investment and in trade. We may see some growth in government, obviously with the fiscal programs; but even so, to get to zero growth in final sales, the Greenbook needs to forecast growth of about 2 percent in real consumption in the second half of the year, which given current developments may not be so easy to obtain. So like many of you, I guess that we will see a stabilization, perhaps some modest positive growth, in the latter part of this year, but this is by no means a certainty. It will depend very substantially and perhaps most fundamentally on achieving some stabilization in the banking sector. I don't think that other financial improvements will compensate for continued deterioration in bank balance sheets.

The next intermeeting period will be very important. It is of great significance that we have now made it through the political transition period. I think it did create additional uncertainty. It is interesting that the implications of the March inauguration in 1933 were the reason we pushed it back to January, and we may make it November 5 next time. [Laughter] But I think it is good that we do have—political views notwithstanding one way or the other—a

new Administration with some political capital and with a mandate to take action, and we ought to know a lot more by the next meeting about what those plans are and how the Federal Reserve fits into the overall program for stabilization. So I think that this intermeeting period will be critical.

On inflation, I tend to take the conventional view that the extent of slack and declining commodity prices, because of both domestic and foreign slow growth, will lead to declining inflation. I recognize the issues about expectations. I think on the whole, though, that they will move down rather than up. It is important to note that, given that we are already at zero in terms of the policy rate, the dividing line between deflation and inflation is not really that significant. It's disinflation at this point, which both raises real interest rates and creates the debt deflation mechanism that moves wealth from debtors to creditors, which for good reasons is probably not a neutral transfer because of the effects it has on financial stability. So I do think that disinflation is a concern, but that is probably a relatively slow moving process, and we can keep our eye on it. I do hope that improving our communication with respect to our inflation objectives will, on the margin, be beneficial. Of course, inflation expectations are important both in financial markets and in the general public. I imagine our communications are more effective on the financial side, but we can also try to have a more aggressive communication strategy with respect to the broader public.

I will make just one comment anticipating policy a bit, which is that I think we ought to recognize that we could be at zero for quite a long time. There were a few comments that, with economic growth expected beginning in the second half, we might be coming out of zero relatively soon, and it could be the case. I think we have to be prepared to do that. But even aside from the Greenbook's very long term projection of zero rates, I noted that, if you take the

central tendencies of this Committee for 2011 and stick them into a Taylor rule, you still get minus interest rates. So I still think, based on the median and modal views of this Committee, it is likely that rates will be low for some time. Therefore I agree with President Bullard that we do have to think very hard about our quantitative approaches and, as we discussed yesterday, find ways to make them more effective, to communicate them more accurately, and to assess them quantitatively. Those are all critical steps, and that will be a challenge for us as we go forward. So even if we are not moving the federal funds rate around, there is still going to be a great deal to do and a great deal to think about. Let me stop there and turn now to Brian Madigan to introduce the policy round.

MR. MADIGAN.<sup>4</sup> I will be referring to the package labeled “Material for FOMC Briefing on Monetary Policy Alternatives.” This package includes the revised versions of the draft statements that were distributed on Monday. By lowering the target federal funds rate essentially to zero at its last meeting, the Committee entered the realm of unconventional monetary policy. Given our limited experience operating in this regime, I thought it might be helpful to begin my remarks by reviewing the various tools you might employ if you decide that further monetary policy stimulus is appropriate.

First, the Committee can communicate its intentions in ways designed to influence the expectations of private-sector decisionmakers. For example, as President Plosser noted, the Committee could provide additional information to the market about its expectation for the path of the federal funds rate. In its December statement, the Committee offered some information about its intentions by indicating that it “anticipates that weak economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.” The Committee’s action to lower the federal funds rate target nearly to zero was greater than market participants generally expected, and its message about short-term rates remaining low for some time further conditioned expectations. Interest rates moved noticeably lower across the entire yield curve, indicating that the combination of the action and the statement provided additional monetary stimulus.

The Committee could be more specific about the future path of the funds rate—for example, by being more explicit about how long the target rate is likely to remain close to zero or even by providing your expectations to the market for the trajectory of rates after liftoff. For example, just as you provide ranges and central tendencies for real GDP growth, the unemployment rate, and inflation, you could likewise do for

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

the fed funds rate. However, given the enormous uncertainties about the financial and economic outlook, you might be uncomfortable providing such specificity, and you may be concerned about the implications for the Federal Reserve's credibility if those expectations proved to be far off the mark. Varying your qualitative descriptions of the path of the funds rate in light of incoming data is another possibility. At some point you might also wish to consider articulating the conditions that would prompt you to begin raising rates. At a minimum, though, as the Chairman noted, the Committee could continue to reiterate that interest rates are likely to remain low for some time. Unless the evolving economic outlook strengthens considerably relative to your economic forecasts, delivering this message continuously seems likely to be an essential component of the Committee's communications for a while. The Committee could also communicate its views regarding other policy tools. For example, it could be explicit about the amounts of open market purchases that it intends to undertake, the types of securities it intends to buy, and the time frame for those purchases. The Committee's December statement followed this principle regarding mortgage-backed securities and agency debt.

The Committee could also expand its communications about inflation. For example, the Committee could make clear that any near-term declines in inflation below its optimal level will be strongly resisted in the medium to long term. With nominal short-term rates now pinned at zero, measures that support inflation expectations may reduce the upward pressure on real interest rates that develops as actual inflation declines, thus limiting the extent of restraint on aggregate demand that emanates from that source. In this regard, you have several communication approaches at your disposal. For example, as discussed earlier this month, the Committee could establish and publish a numerical longer-term inflation objective. Or the Committee could decide to proceed with collecting and publishing participants' longer-term projections for inflation, growth, and unemployment—an approach that most of you evidently support. Of course, you could implement both approaches, with the longer-term projections explaining how you envision that inflation will approach your longer-run objective over time and how growth and unemployment will converge toward their steady-state values. A decision on the longer-term projections is included later in the agenda for today's meeting. A third possibility is that the Committee could use its statement to make clear that it recognizes the risk that inflation could fall persistently below its optimal level. By explicitly identifying that possibility, the Committee would suggest that it is prepared to take actions to counteract such an outcome.

The ability to further expand the Federal Reserve's balance sheet to apply additional economic stimulus—or at least to offset some of the restraint coming from developments in financial markets—offers another set of unconventional policy tools. In particular, the Federal Reserve can expand its use of what the Chairman has called “credit policies” by implementing programs designed to facilitate flows of credit to borrowers who normally obtain funds through markets that have become dysfunctional. To an important degree, the opportunities for exercising these tools will be driven by ongoing market developments: Apart from expansions of existing

facilities, either in terms of amounts or in terms of coverage, it is difficult to predict exactly how such credit policies might be augmented—or even whether it would be desirable to create new facilities—without advance knowledge of where market conditions might deteriorate next. However, as discussed yesterday and today, the Federal Reserve has already indicated the possibility of expanding the TALF to include commercial-mortgage-backed securities. In assessing whether expansion of such facilities is warranted, the Federal Reserve will need to take careful account not only of the possible efficacy of the programs but also of a range of other considerations, including moral hazard and the implications for the System’s exit strategy in returning to a normal framework for conducting monetary policy.

Other aspects of the Federal Reserve’s balance sheet, such as the reciprocal swap arrangements and the System’s portfolio of Treasury and agency securities, offer a third set of opportunities for providing greater stimulus. At the moment, there would not seem to be much motivation for increasing the authorized amounts of swap lines, as conditions in global interbank funding markets have generally improved somewhat over recent months. However, expanding the System’s purchases of agency debt and mortgage-backed securities might represent a more compelling possibility for applying further monetary stimulus. Purchases of longer-term Treasury securities are another possibility. The System’s MBS purchases have already had a notable effect in lowering mortgage rates, and the Committee might see further action in this direction as likely to be productive. As discussed by the Committee yesterday, purchases of Treasury securities might help improve conditions in private credit markets, but engaging in such purchases would also have some disadvantages.

Alternative A for this meeting, the draft statement for which is shown on the next page of the exhibits, would exercise several of the options for applying more stimulus. The decision to apply additional stimulus under this alternative would be explained by the indication in the first sentence of paragraph 2 that the economy has weakened somewhat more than anticipated. It would also be supported by the statement in the last sentence of the paragraph that the downside risks to the outlook are “significant”—an adjective that, as President Fisher noted, might be seen as less alarming than “sizable” while still getting the point across. Paragraph 3 would indicate that the Committee expects inflation pressures to remain subdued, and it would reveal a concern that inflation could persist for a time below rates that best foster economic growth and price stability in the longer run. As I noted previously, identifying this risk explicitly could help reduce the extent to which market participants lower their assessment of the FOMC’s inflation expectations in response to near-term declines in inflation. Paragraph 4 reiterates the point made in December that the Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and again notes that these measures are likely to keep the size of the balance sheet at a high level.

The next two paragraphs provide language to explain the choice of an expanded program of purchasing mortgage-backed securities or a new program to purchase Treasury securities. Alternative 1 would increase the planned purchases of MBS to

\$750 billion; the current pace of purchases would be maintained, and the additional amounts would be purchased in the third quarter. Market participants have already expressed some concern about what happens when the currently authorized program concludes at midyear, and an announcement of additional purchases of MBS seems likely to at least maintain, if not increase, the downward pressure on mortgage rates. Alternative 2 would entail the purchase of up to \$250 billion in Treasury securities this year. The final paragraph of the statement for alternative A notes that the Federal Reserve will soon implement the TALF. It also indicates that the Committee will be monitoring the Federal Reserve's balance sheet and assessing whether expansion of or modifications to the lending facilities would serve to further support credit markets and economic activity and help to preserve price stability. All in all, alternative A would be most consistent with a view that the economic outlook is unsatisfactory, that the Committee has several tools that it can employ to improve that outlook, and that the benefits entailed in using these tools outweigh the costs.

Alternative B, shown on the next page, would also express the view that the federal funds rate is likely to remain low for some time, but it differs in some notable respects from alternative A. The first sentence in the second paragraph cites evidence that the outlook remains weak but does not state that the economy has deteriorated further. However, like alternative A, it notes that the downside risks to the outlook are significant. The inflation paragraph also points to subdued inflation pressures, but it omits any indication of concern about the downside risks to inflation. The final paragraph notes that the FOMC stands ready to expand the quantity of its MBS purchases and the duration of the program as conditions warrant; this indication would also help address market concerns about the end of the program at midyear. The draft indicates that the Committee is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. This wording is intended, first, to indicate that the Committee has reached a decision—it is not still “evaluating” possible purchases; second, to suggest that the Committee does not see such purchases as the most beneficial action the Federal Reserve can take in current circumstances; and third, to note that conditions could change in a way that would prompt the Committee to initiate purchases.

Overall, alternative B does not entail additional action at this meeting. The Committee would indicate a possible expansion of its MBS program without taking such action now. But the statement would suggest that the FOMC is unlikely to purchase Treasury securities, at least absent a significant change in circumstances. With market participants evidently building in significant odds of Fed purchases, it seems likely that such a statement could spur a noticeable backup in longer-term Treasury yields—perhaps as much as 20 basis points or so. The Committee might be inclined toward alternative B if it sees the economic outlook as not having deteriorated materially since the last meeting. It might be encouraged by the tentative signs of improvement in some financial markets and believe that further improvements are possible as the TALF comes on line. It also might think that the passage of a large fiscal stimulus package is likely and that further significant

legislation to provide support to financial markets and institutions could be forthcoming from the Congress. In these circumstances, and with the Federal Reserve already having applied considerable monetary and financial stimulus, the Committee might think it most reasonable at this time to monitor the effects of the actions taken to date, assess the likely effects of further policy actions, and be prepared to implement additional measures such as expanded purchases of mortgage-backed securities, if needed.

Alternative C, shown on the next page of the handout, also would express the view that the federal funds rate is likely to remain low for some time. It would note that the Federal Reserve continues to purchase large quantities of agency debt and mortgage-backed securities and would note the imminent implementation of the TALF. However, this alternative would be silent on further Federal Reserve actions to support credit markets and stimulate the economy. With no mention at all of possible purchases of Treasury securities, market participants would likely conclude that the Federal Reserve had dropped the idea, and Treasury note and bond yields could jump appreciably. More generally, analysts would infer that the Federal Reserve was unlikely to take further stimulative policy actions. Alternative C is most consistent with a view that considerable monetary and financial stimulus has already been applied and that the potential costs of further stimulative actions by the Federal Reserve outweigh the potential benefits.

The statement released after the December meeting is included as the last page for your reference. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Questions? All right. If there are no questions, why don't we begin our policy and statement go-round. Let's start with President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I prefer alternative A. The current outlook envisions an inflation rate below 2 percent throughout the forecast period. We have judgmentally adjusted our inflation forecast upward relative to the straight model outlook. Thus, our forecast entails a significant risk of deflation occurring in 2010 unless additional actions are taken. I see little harm in expanding our program of purchases of mortgage-backed securities and GSE securities to lower mortgage rates further. While this alone is unlikely to be sufficient, it will help stabilize housing and the financial sector. I would prefer this policy to purchasing long-term Treasury securities. Rates on long-term Treasury securities remain quite low as many investors prefer to hold government securities of all maturities. Trying to reduce the spreads

relative to Treasuries is likely to be more effective as it more directly attacks the elevated borrowing costs.

I would note that, in our own projections over the three-year period, not a single one of us had an unemployment rate back below 5½ percent, and I would note that only one of us thought that we would get to 2 percent if that was our inflation goal over the three-year period. The difference between alternative A and alternative B is whether we say we might do something versus doing something. It does seem that, if all of us think that we are not going to get to where we want to go within three years, this would be the time to actually do something. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Mr. Chairman, obviously, as we have said, the downside risks to the economy are quite large, in part because we are involved in very serious banking conditions that probably also will worsen significantly over the next several months. In particular, the exposures of the banking system and insurance industries to commercial real estate, as we have said, represent a significant risk both to financial stability and to economic activity. There has been some improvement in financial market functioning in recent weeks, but most of the improvement is tied to the significant support from our programs and other government programs and not from the markets repairing themselves. These repairs still lie ahead, I suspect, and this will absorb increasing amounts of our time as we try to deal with that.

Second, over the next several months, fiscal policy will take center stage. I think this is the first phase that we are hearing all the discussions about now, and this Committee will need to decide how it should position itself relative to a potentially large amount of new fiscal stimulus that has really not all been defined at this point. I suggest it would be prudent then to wait to see

more about the form, timing, and likely effect of the fiscal stimulus before firmly committing to new expansionary policy programs that would be defined in alternative A. In addition, fiscal steps to deal with toxic assets and thereby improve the functioning of the financial system may alter our approach to supporting the financial system and market stability. I think there are some pretty significant issues around these institutions that will be discussed in the very near future. Consequently, I favor alternative B rather than alternative A at this time.

Also, as to additional nontraditional monetary policy measures that we might employ, I agree with the Board staff's recommendation that we retain the option of purchasing long-term Treasury securities at a future date but not engage in these purchases now. I do agree with what President Rosengren had to say about that. Treasury purchases would send a clear signal. In addition to what President Rosengren said, they would clearly begin to acknowledge the monetizing of our deficit. At this juncture, I would prefer that we continue with our previously announced efforts to reduce the spreads of agency and private securities over Treasuries. I would also like to recommend that we think ahead as to how we might provide support to institutions and markets that provide financing to commercial real estate, should conditions in that sector continue to deteriorate. It would be helpful to try to outline a process that does not force us to again go around the intermediation process or find ourselves in a kind of very quick, over-the-weekend approach to things.

I also favor the inflation risk discussion in alternative B. As I indicated earlier, the decline in overall and core inflation in the last couple of months and during the recession is to be expected and represents really no surprise, although it is significant. Although I expect inflation to remain low for some time, I do not feel that deflationary risks have increased to the point that we need to reflect them in our communications. In fact, I think that to do so could only lower

inflation expectations and put pressure on real interest rates. I'll stop at that point. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I favor alternative B. I think it's important to reiterate that we will likely maintain our target range of 0 to ¼ percent for some time. I am certainly open to the idea of buying longer-term Treasuries, but I would not go forward with such a policy today, and I like the wording in B concerning our attitude toward that. I am certainly also very open to the idea of expanding our purchases of mortgage-backed securities and supportive of President Rosengren's views on this. I think I would not go forward with it today, however, given that we have only just begun to buy these securities. We have a long way to go before we ramp up to anything close to our commitment, and right now it makes sense to wait to see what the Administration puts forward in terms of their program to support the banking system, to see if they are willing to collaborate with us in expanding the TALF facility, and in what directions they plan to go and in what ways they may proceed to support the housing market. So just in terms of the timing of a further commitment there, I think I would be tempted to wait.

The one suggestion I would make concerning alternative B is that I would like to add to it the sentence from the end of paragraph 3 in alternative A that concerns the inflation risk assessment. The additional sentence reads, "Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term." I would add that to B because I think it is an accurate assessment of the situation, and commenting on the risk makes our discussion of inflation comparable to our discussion of growth, where we also comment on the risks.

CHAIRMAN BERNANKE. Thank you. President Pinalto.

MS. PIANALTO. Thank you, Mr. Chairman. As you noted, we all agree that the outlook for economic growth is bleak. To be sure, our policy actions so far have been aggressive; but even so, I have a predisposition to provide further monetary stimulus. From a risk-management perspective, there are very few scenarios I can think of that would suggest that further monetary stimulus would be a mistake. But despite my bias for action, I am hesitant about how to proceed.

As I was putting my thoughts together for this portion of the meeting, I recalled the many conversations that we have had around this table about our communication policy. Even when we were operating in a well-defined policy regime, we often experienced great difficulty in determining how best to express our decision and our intentions publicly. Now we are operating in a new policy regime—credit easing—that we understand conceptually but for which no operational handbook yet exists. We don't know how to write down the policy rule for this environment, and we surely don't have any empirical estimates to guide our decisions. Our discussion yesterday about what the effect is of a \$250 billion purchase of MBS or a \$250 billion purchase of longer-term Treasury securities demonstrates that we just do not have certainty around the effects of those actions. Before this crisis began, the public had a fairly good grasp of our policy rule. Now they are trying to find the new rule, and I hope they do not find one before we figure out exactly what it is. [Laughter] I certainly hope that we find it before John Taylor does.

The serious issue is how we can best manage expectations in this policy regime when we are so uncertain about so many things. Alternative A, in my view, conveys a stronger degree of certainty to the public than I have at the moment about our policy rule. I don't know the basis

for selecting \$250 billion more of mortgage-backed securities or \$250 billion additional in the longer-term Treasuries. I do not want to convey or set up the expectations that, by wanting to ease more, we are now going to use the \$250 billion increase in our announcement of purchases, whether they are mortgage-backed securities or longer-term Treasuries, just as the  $\frac{1}{4}$  percentage point change in the fed funds rate had been viewed in our prior policy regime. Alternative B doesn't cite specific quantities, but it does communicate a willingness to step up the pace and to extend the duration of our credit programs, and I think that is the appropriate action for today. The alternative also reminds the public that additional credit easing in the form of the TALF and mortgage-backed security purchases is on the horizon, and I think we will be well served to tell the public as much as we can and then update them frequently as our own views evolve. I think alternative B does that without overstating what we know.

In favoring alternative B—and I am now the fourth person in this go-round—I am going to offer a fourth alternative in terms of the language. I, like President Yellen, would add paragraph 3 from alternative A regarding our inflation outlook. Then given our go-round today and your comments about how you heard the go-round, Mr. Chairman, I think paragraph 2 in alternative A more accurately describes the view that we have had more weakening than we thought. So those changes—paragraphs 2 and 3 out of alternative A but paragraph 4 out of alternative B—are what I would recommend for today. Thank you.

CHAIRMAN BERNANKE. Just to clarify, I think what Brian says is right. The only difference between alternative A, paragraph 2, and alternative B, paragraph 2 is that in A(2) it says “weakened somewhat more than anticipated” whereas in B(2) it says just “remains weak.”

MR. MADIGAN. Right.

MS. PIANALTO. Right, and we were commenting that many of us said that things had gotten weaker. That is the only observation I would make.

CHAIRMAN BERNANKE. Okay. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I am going to counsel essentially a wait-and-see attitude, and then I am going to confuse you by arguing that later we should be very aggressive. I think the wait-and-see attitude would echo a lot of what President Yellen said. We have a new Administration coming in. They are promising to be very aggressive on many dimensions. One of them is a fiscal stimulus package. I think we want to see what that turns out to be and what the provisions of that are at the end of the day. There we have some fairly good expectations, but I think I would still want to see how it pans out.

More critical are the discussions about direct approaches to try to mitigate problems in financial markets, possibly through an aggregator bank. I see this as absolutely critical as to how we might proceed going forward, so I would want to hear more about what is going to happen on that dimension. I do think we will get a lot of information over the next several weeks along that dimension, so that is an argument to wait and see what happens. Also, we have our program of outright purchases of MBS, which is generally regarded as successful, but we are only a bit along on that. We are not up to our \$500 billion target, and so we can let that continue while we try to get information about what the new Administration has in mind. For these reasons, I think my position is most consistent with alternative B, but I do have several comments on the alternatives.

My first comment—and I was talking about this last time—is that I would prefer to get the federal funds rate off the top of the statement. I would move it to the end. This is not projected to change for a long time, maybe four years. What you learn in English class about

writing is that you put your main message first. Your main message is, Here are the things that are different from where we were last time. Obviously the interest rate is not going to change for a long time. You want to be stressing right off the bat that here is the key decision that we made today, and so I would try to rearrange this to put that first. I do not have specific suggestions on this. I think that would go a long way to communicate the nature of monetary policy during 2009, 2010, and 2011. Again, I want to stress that we really have to work hard to get the private sector off the idea that the federal funds rate is the definition of monetary policy. There are many things that we have been discussing that can be done, and we are doing them, so we have to design our statement to reflect that. I think that even our own thinking has not evolved away from the federal funds rate as the definition of monetary policy as much as it needs to.

A central bank that refuses to talk openly about money creation is suspect. If we refuse to discuss the matter or discuss the matter only euphemistically, we will lose credibility. Furthermore, others will discuss it for us, and the private sector will define who we are and what we are doing. So I think we should be more open in talking about our policy, which is direct open market purchases by reserve creation. We should think harder about that, and we should talk more about that.

I think that I have quantitative measures. I know we do not like to talk about money here, but let's talk about money for just a minute. M2 growth was quite rapid in the fourth quarter, and that seems promising to me given the situation globally. But it seems that the staff expects M2 growth actually to moderate in 2009 down to 3 percent. That seems counterproductive to me. We should be more aggressive if we want to get something like a broad measure of money growing rapidly enough that we're sure that we're going to be able to avoid a global deflation trap. That gives you something to shoot for. We recognize that the old debates on money

pointed out that linkages are not tied to ultimate outcomes. We know that, but still, in an environment of zero nominal interest rates, this might be a reasonable way to go. People would understand what we're talking about and would understand that we have our inflation objectives in mind as we are trying to ease here. So that is just a little comment on M2.

I have also come to the conclusion—and maybe all of you were ahead of me—that time may not be a healer here as far as financial market problems. There were a lot of comments around the table that, well, we'll give the financial markets more time—six months—to adjust and so on. Well, we are 18 months into this crisis, and I actually thought when we were a year into the crisis that markets had had enough time to adjust. It did not prove to be the case. So the thing is that these information problems do not go away with the passage of time. I think that is the key thing that we have learned here. Eighteen months along, and this is as bad as ever—this is in the last couple of weeks. So direct approaches to solve market information problems are going to be essential, and that's one reason that we need to see what the new Treasury and the new Administration have in mind on that dimension. But to the extent that a direct solution does not materialize—and it is certainly very possible that something gets proposed, and something gets done, and then it does not work very well—then that may dictate our policy. We may have to be all the more aggressive in that scenario, but I want to wait and see how this stacks up in the next few weeks.

Explicit numbers in the alternatives, as in Alternative A, seem crude and suspect to me. What we would like to be talking about is the growth rate of the balance sheet net of the temporary components or the easily reversible components. We would like to cull out the lender-of-last-resort programs, the ones that we think will go away in a reasonable time frame or will naturally go away if market conditions improve. But we also have more-persistent or more-

permanent components of the balance sheet, such as MBS purchases, which I do not think we will be in a position to reverse anytime soon. That to me is just an increase in the money supply. These individual numbers might also create option values to waiting in the market. You might think that mortgage rates are low today, but maybe the Fed will come out in the spring and announce another \$500 billion, and so you will wait because you think mortgage rates are going to be even lower in the future. In the past when we have talked about quantitative things, it has always been in growth rate terms or some kind of growth rate strategy that extended over the whole projection period, so the explicit numbers at this point seem crude to me.

My sense is that we may have room to do much more in open market purchases than we have right now based on what the Greenbook is telling us. Five years from now we still do not have inflation up at 2 percent, as President Rosengren pointed out. If that is really what we think—and one of the simulations added \$1 trillion to that and we still did not hit our inflation target after five years—possibly we have room to do a lot more and could be a lot more aggressive. But I just do not think at this point we have the right metrics in place, so I just cannot be sure at this point. I think that is where we can improve in the next couple of meetings. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I certainly think the economic outlook is unsatisfactory, and it sure has not gotten any better over the intermeeting period. I am not sure it has gotten materially worse. If I look at the Greenbook forecast, the revisions to Q4 and Q1 are to the right of the decimal point, and we have a lot more fiscal stimulus coming. I am not totally comfortable with President Pinalto's suggestion to emphasize that it has gotten worse, but certainly the outlook remains quite weak. I think we are in a situation where we need to be

looking for everything we can do to ease financial conditions. I would encourage you, Mr. Chairman, to pursue an understanding with the Treasury, which you talked about yesterday, about the division of responsibilities on risk-taking and also about reserve sterilization over time. In particular, if we can get legislation and understanding on the latter that enables the Treasury or, even better, the Federal Reserve to issue bills without debt limits and congressional controls, what you called yesterday the shadow price of our balance sheet space would diminish very, very considerably, and we could play the more aggressive role that President Bullard was talking about. We wouldn't have to worry about how we are going to take it back. If we have another tool to take it back, we would be much more aggressive on our activities.

I think right now the constraints on the financial system are more about capital and worries about future capital, downside risk, than they are about liquidity. I do like the division of labor in the TALF—that the Treasury takes the risk and we supply the liquidity. I think I am uncertain now whether it will be effective. I think there is a good chance, but as we get experience with that, we should be looking very hard at other markets like CMBS that might also be helpful. Also, we should be looking at how we could be useful in other aspects of TARP 2, subject to the constraints about risk-taking and balance sheet space that you had noted yesterday, Mr. Chairman. I think lifting and ring-fencing assets may be very, very valuable to reducing risk and stabilizing the system.

On the Treasury security purchases, I think it is correct not to do that now. I guess I would keep it a little more on the front burner than what I am hearing from some other people. Rates are pretty low now. I would keep my eye on those forward rates. If they look as though they are coming up, I would give it some serious consideration if we thought that the market was

building expectations about future rates that were inconsistent with returning the economy to high levels of employment over time. I would be more in favor of it.

So I think we have a number of things in train right now. We need to see how the Administration is working out. I agree with the others who have said that we are temporarily in wait-and-see mode. I am comfortable with not doing anything now, as we have under alternative B, but working very, very hard on new initiatives as we see where we can be useful.

With regard to other wording issues on alternative B, I agree with President Yellen and President Pianalto that taking that sentence from A about inflation being too low and putting it in paragraph 3 here would be good, especially in conjunction with that “help to preserve price stability” that President Fisher suggested we put in the last paragraph because now we are helping to preserve it from below. I think those two things would work together, and I hope we have the long-term projections coming out, which will reinforce that message. So I agree with that.

President Bullard yesterday and again today emphasized whether the monetary aggregates or reserve aggregates can be useful to us. I guess I start somewhat skeptical about that, but I think we should be doing very hard research about whether broad measures of money or narrow measures of reserves have some relationship to spending even at the zero bound. President Bullard, you said that M2 growth looks a little low to you this year. Under these circumstances, how are we going to raise that? Will putting in more reserves do anything? I am not sure, but I would encourage you and your staff and others around the System to work hard on whether these quantitative measures are more useful to us right now. Thank you, Mr. Chairman.

MR. HOENIG. Mr. Chairman.

CHAIRMAN BERNANKE. Yes, President Hoenig.

MR. HOENIG. Two or three people have mentioned the last sentence in paragraph 3. I would just like to get a bit of reaction from Governor Kohn or President Yellen. My concern with putting that sentence in is that you change expectations toward the thing you are trying to avoid. If we suddenly start saying that we are thinking inflation is getting too low and it is not consistent, people then are going to be convinced that it is getting too low and we are going to put more pressure on it. We ought at least to think about that before we get on a bandwagon here. That is my caution. I do not know if anyone wants to comment.

MR. PLOSSER. I would just reiterate that. I worry about that phrase for exactly that reason. We potentially shape the expectations in a way that we do not want to have them shaped by going too far in that direction. So I share your view.

CHAIRMAN BERNANKE. It is a very difficult question. On the other hand, it also suggests that our policy will be more aggressive. So it is a bit hard. I honestly do not know.

MR. PLOSSER. Or, in fact, it may suggest that, if we believe it, our policies aren't going to be enough to prevent it.

CHAIRMAN BERNANKE. I see. President Lacker.

MS. YELLEN. It is in our longer-term forecasts.

MR. KOHN. Yes. Well, we will be publishing forecasts that have those inflation numbers in them.

MR. LACKER. The spread of views on this is likely to be related to the extent to which we believe our credibility is complete—in other words, if we think that expectations about inflation are so fragile and so changeable that our statement highlighting the possibility of deflation could move them around. On the other hand, you could take the point of view that they are so well anchored that it will not move them around. I find myself in the Hoenig and Plosser

camp on this—not viewing them as as well established as we want. Well, that is consistent with my statement.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. The tension here is that this is probably factually correct, and so the question is whether or not you want to say what is factually correct because you are afraid that it will influence expectations.

MR. PLOSSER. Well, there are a lot of things that are factually correct that we don't say.

CHAIRMAN BERNANKE. That is also factually correct. [Laughter] Others can comment on this. I must admit to not having a strong view myself. I think the coward's way out is to say that we do not know yet. That would be one reason, President Yellen, to delay a meeting or two before putting that in. But, of course, I understand exactly what you are saying, and it may well be the case that this is yet another way of signaling a long-term, aggressive policy. But, President Evans, you are next, so why don't we just go straight to you?

MR. EVANS. Let me ask a question. Has anybody conveyed that thought in speeches or testimony either from you or Governor Kohn, in which case it would be less newsworthy?

CHAIRMAN BERNANKE. I do not think so, and that is why I am a little leery.

MR. EVANS. All right. Thank you.

MR. YELLEN. I have certainly said it in speeches.

MR. EVANS. Right. I may have said something like that, too; I'm not quite sure. Okay. Thank you. I do find myself largely in agreement with the emerging consensus here. In fact, as I was listening to President Yellen's comments, I found them to be wholly satisfactory from my viewpoint. I do have a preference for alternative A today. I think obviously what we would like

to do is to lower the funds rate, but we cannot do that. So we are struggling for the best way to do that, and we do not have a great way to understand exactly the influence of our credit programs on that.

I ask myself what the value of waiting and seeing is right now. On the one hand, we have not implemented the TALF, although we have been talking about it for quite some time, and so it will be useful to have some experience with that and see what the signals are coming from that. I find myself in agreement with Governor Kohn on this, but I am unsure how it is going to work out, and so there will probably be some adjustments. Then I ask myself whether we can afford to wait, given what we are looking at. It does seem as if there is a lot of uncertainty as to fiscal policy—exactly what the size of it will be and how it will play out. In our own forecast we have a stronger role than some others, but uncertainty is there. As I looked at alternative A with the MBS, it mentions that we are not going to complete this until the end of the third quarter, and that by itself has a great amount of delay. I think that is very pragmatic, and that is the way it would actually occur. I am not quite sure whether the cost of putting that off and announcing it at our next meeting, if that is the right way to do it, would be that high. There is also the uncertainty of what the Administration will pursue. As President Bullard and others mentioned, if there is a proposal for a large aggregator bank coming forward from the Administration, what will be the size of that? What are the dimensions of that, and would we need a big action now or how would that play into it? There are a lot of uncertainties, and so I just cannot say I know for sure on that.

In terms of the specifics, I did find myself okay with the language on inflation perhaps as “below rates that best foster economic growth.” But I agree—there is a lot of uncertainty as to how that will be perceived, but it does seem factually correct that there is some risk. So I would

be okay with that. I suppose we have not really discussed—or have we?—your question, Mr. Chairman, about the sentence whether we anticipate a gradual recovery later this year. It does seem to me as though in almost every forecast we see economic growth certainly being positive by the fourth quarter and we hope by the third quarter. I worry a bit that, if we are more pessimistic in our statement about that, it would seem to be some type of vote of no confidence in fiscal actions that are forthcoming. It doesn't seem to be factually incorrect that we are expecting this, and so I would favor leaving that. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you very much, Mr. Chairman. I fully support the expansion that we have engineered in our monetary liabilities. I view our strategy as having expanded them fairly dramatically to provide stimulus now that we are at the zero bound. I think our strategy going forward is going to be focused on maintaining them at a high level and, while the economy is in distress, perhaps varying the quantity and perhaps increasing it should distress increase, and that seems productive. When the economy recovers, begin withdrawing that stimulus; then at some time in the future, lift the funds rate off the floor. I am cognizant that assessing the appropriate magnitude of that expansion is terribly difficult, for reasons that President Bullard and Governor Kohn discussed. We are, in fact, at the limit of our professional understanding of the transmission mechanism, although I think there is a lot that is known that we could fruitfully review and discuss in the Committee on this issue. I am less supportive of the way in which we brought about this expansion in our monetary liabilities, as you all know. As I said yesterday and on many other occasions, I think the case for targeted credit programs is weak, briefly put. They do not address any demonstrable market failure. They channel credit away from other worthy borrowers, exacerbate moral hazard, and set bad fiscal precedents.

Regarding the exit strategy, I do not see anything inherent in the economics that has motivated our intervention into these programs or that links that to the state of the business cycle and where the funds rate needs to be. So I do not see why it would necessarily be the case that, when we want to lift the funds rate, the perceived needs in any of these dysfunctional credit markets will have necessarily gone away. I think that is clear just from the way the case has been made and the fact that credit markets can dysfunction in the way they have been claimed to dysfunction in peacetime, in any part of the business cycle.

The TALF is our next new targeted credit program to be introduced. It is on deck to be implemented in February. I believe that it would be better policy for us not to implement the TALF but instead to expand our balance sheet by buying U.S. Treasury securities. The effect on credit markets will be more neutral. It will avoid distorting credit flows across private borrowing segments. Adverse incentive effects would be minimized, and I think it would maintain more distance between us and redistributive fiscal policies. Concerning buying Treasuries, I think that monetization is something that I am less concerned with because the way I view it is that the choice should be what we buy, in which case we are monetizing the same amount of stuff.

I can appreciate the concern that, coming at a juncture in time in which a large fiscal stimulus is being enacted, there would be a natural risk—and I think it is a risk—that the public would make the inference that our increase in the balance sheet was at the behest of the Administration. I think we should strive to avoid that. If we maintain our monetary liabilities flat across this episode for the next quarter or so, we would be able to do that, but I will admit that is a risk. You have had conversations and will have conversations with the Administration about the idea of a new accord. As I said yesterday, I applaud those. I think that is another reason to hold off introducing any new program that we might ultimately be considering—and I

think we ought to consider—transferring wholesale to the Treasury. For all of these reasons, Mr. Chairman, unless we decide at this meeting to defer the TALF, I would respectfully dissent because I would prefer to expand the monetary base by purchasing U.S. Treasury securities rather than through targeted credit programs. Thank you.

CHAIRMAN BERNANKE. Just a small point. I would view it as unlikely that conditions would be unusual and exigent across a wide span of credit markets simultaneously when we were having a significant recovery in the economy. But of course, that is an empirical issue. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman.

MR. LACKER. Excuse me, if I could just reply—in the TALF as it is envisioned, we are to declare that for three years it is going to be unusual and exigent, as I understand it. Is that correct?

VICE CHAIRMAN DUDLEY. No, not really. The term funding lasts for three years, but the actual program ends at the end of this year.

CHAIRMAN BERNANKE. Right, which is similar, for example, to what the FDIC is doing with the systemic risk exception with the 10-year bond issuance. Also, from a monetary policy point of view, our plan for these programs is to create terms that will automatically extinguish interest at some point as conditions normalize.

MR. LACKER. So the interpretation is that circumstances have to be unusual and exigent at the time it is entered into.

CHAIRMAN BERNANKE. Well, there are some legal niceties here that we can get to another time.

MR. LACKER. No doubt. Thanks.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I think it is clear that we will be keeping the funds rate between zero and 25 basis points for some time to come, although “some time to come” is a bit vague, which obviously has some desirability. I recall last time that we had a significant discussion about making sure that our statements about the fed funds rate had some conditionality to them. I do not know whether the statement the way it is worded is actually sufficiently conditional or conveys that message or not, but I just raise that as an important aspect of communicating. Our plans are, in fact, conditional, and we need to make sure that is included.

Actually, I can live with the language in alternative B. I think it does seem to characterize the current state of the economy, which is clearly quite weak. As I expressed earlier, I am really not inclined to put in the additional sentence that President Yellen suggested for the reasons that I worry about the fragility of expectations, and I think we need to maintain our credibility and our firmness with our view that we are going to maintain those. I am also a little worried. I have two problems with alternative A. One, it sounds too panicky to me. The Chairman and actually Governor Kohn mentioned the fact that things look pretty bleak. But if you look at the Greenbook forecast, it is really not that much different from the one in December. December was a clear shocker, if you want to think in terms of changing people’s expectations about our forecast profile. From December to now, it is not entirely obvious to me that the bad news we have received was that much unanticipated—maybe a little, but not hugely. So I would hate our statement or the minutes to reflect such a gloomy view that the markets read it as another big downward shift in the forecast because I think it may do more to damage the markets and cause concern. So I would like to have the minutes and even the statement reflect a

little more that this was not entirely unanticipated, which is why I like alternative B. This is not that big a change in our view, which was pretty gloomy to begin with.

As I have argued before, and others have mentioned, anchoring inflation expectations, as I alluded to, is central to both our credibility and our success going forward in this environment. I agree with President Bullard, as he said in the earlier go-round, that the Greenbook path—and I alluded to this as well—of a zero fed funds rate for the next four years paired with a 3 to 4 percent real growth rate and essentially no inflation to me seems highly implausible both as a positive statement in terms of a forecast and as a normative one. Somehow those three pieces do not fit together real well in the way I think about the world, in part because I am not sure I understand entirely how the expansion of our balance sheet actually fits into that forecast and perhaps how that affects inflation as well. So I do not find that terribly, terribly plausible.

More important, if we are to retain our credibility to maintain stability of inflation expectations, we must develop or offer a more transparent discussion of the link between our current policy actions and that objective or those expectations. I do not think we have done that yet. In this regard, we do need to think more about sizes, quantities, and evolutions of our balance sheet. As I stressed at our last meeting, and as President Bullard suggested, there are ways to begin doing that. I don't claim to know what those right quantitative measures are. I think we need to do some research. But just because we don't know what the right measures are doesn't mean that they don't matter or that we should ignore them. The clarity of policy demanded by the public for the TARP and the pattern of interventions applies not just to the Treasury but also to our bailouts and our interventions. I think we need to continue to work on transparency in this regard and the way all of these pieces fit together. Otherwise, I do fear that

we would be further contributing to a delay in the recovery, as institutions sit on the sidelines and investors wait to see what next intervention or bailout is likely to come.

So I am not terribly comfortable with alternative A. I don't like naming quantities for some programs and not others. I think that is not a good strategy—it singles out some programs as being more important. I don't think we know enough about the quantities to be able to mention them. I also agree with President Hoenig and others who have suggested that we really don't know how the fiscal policy bailout, the aggregator bank, and our roles in these various things might evolve. We need to wait and see before we make commitments to specific numbers of things in which we are not sure what role we will play. Finally, and related to this, I do have some concerns about continuing to discuss programs or actions that we might choose to pursue. While I understand the intent of that may be to manage expectations and signal our commitment to explore every possible avenue to support the economy, such statements are speculative in some sense and may at times do more to confuse the market than to settle it. Indeed, if we were to talk about things we might do and then decide not to take these actions, how would that affect our credibility and the message that we are sending?

In his discussion, Brian talked about how the phrase about longer-term securities might be interpreted—and this is really what I am referring to. I don't know how it is going to be interpreted, to tell you the truth. I have a lot of uncertainty. But I do worry about our talking, in a statement of policy actions, about speculative actions that we don't know whether we are going to do or not. I worry about what that is going to do to the markets, particularly if at some future time we drop it, and that we may have gotten ourselves into a bind by putting it in there. We need to think very carefully going forward in this regime when we really haven't decided yet

what policy instruments we are going to be using and how we are going to be using them—speculating about that in our statement seems to me to be a bit risky.

So I can support alternative B, Mr. Chairman, pretty much as it stands, with the caveats about not being more negative than we were last time and some caveats about both the conditionality and the forward-looking statements. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. In my view, the worrisome recent developments in the financial markets, combined with the current self-reinforcing interplay of bank news, economic data, and deteriorating public confidence, call for another increment of action in advance of the Administration's proposals with their inherent unpredictability—that is, the unpredictability of the political process. I could or I will accept alternative B, but I support alternative A, which I would characterize as signaling that things are a bit worse, take out some insurance, and do a little more. I think the characterizations of the state of the economy in sections 2 and 3 are appropriate. I actually, to some extent, supported the use of the word “sizable,” but I am certainly okay with the change back to “significant” as a safer term. I also interpret section 3 as saying that at least continued disinflation is a real risk, and I think that is a realistic statement at this time.

I support alternative 1 in section 4 with its action of adding \$250 billion to the MBS program. I am persuaded by the staff argument, which is supported by my own staff, to defer but keep on the table the introduction of a longer-term Treasury securities purchase program. However, I would tinker a little with the words “prepared to” for reasons somewhat similar to President Plosser's. I think “prepared to” may convey too much intentionality. It could be interpreted as “absolutely ready but holding off,” or conceivably someone else might interpret it

as “inclined to but with some hesitancy at this stage.” I think it is, therefore, too ambiguous. I would prefer signaling that the Committee “holds open the option” of such a program, and I would prefer those words over something like “still evaluating.” Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. I favor alternative B, as written. I think it does accurately capture the sense of the discussion here. There are probably other ways of capturing that sense, but for me that does the trick reasonably well. I do think it provides us with ample flexibility—ample leeway in the short run—to pursue our objectives. I don’t worry much that it is going to unnecessarily constrain us in the next few months to do what we think we need to do. So I find that all positive. Finally, I would avoid associating quantities with purchases of mortgage-backed securities and other things. They seem arbitrary at this point, and I think paragraph 4, as written, conveys the message without putting in the numbers. So I am pretty happy with it as it stands.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, I submitted my recommendations in writing. I am pleased with the way they were included. Basically, what I am hearing is that we should take alternative A and append paragraph 4 of alternative B and most parties would seem to be satisfied, at least those that are most worried and expressed themselves. I will use President Yellen as an example, but as others did as well.

With regard to that one sentence that is at the end of paragraph 3—“Moreover, the Committee sees some of risk that inflation could persist for a time below rates that best foster economic growth,” et cetera—I think we offset that by the reference to “help to preserve price stability” at the very end. The reason I wanted that included—and I thank you for its being

included—is that it speaks from both sides of this. We are not going to tolerate deflation, and we are aware of the fact that there are concerns that we are setting the stage for an inflationary backlash. So my recommendation is to use those first three paragraphs in alternative A and the last paragraph in alternative B. I agree with the majority of the sentiment at this table. I would not have specific numbers. My colleague to my left refers to that as crude. I would say that it just puts a target on our chest, meaning that it gives the markets something to shoot at. But if we don't deliver or somehow we are not interested in finally getting those numbers, we have basically set ourselves up for disappointing the marketplace.

I would also, in the interest of being provocative but at the same time sensible, take President Bullard's suggestion with a full heart. I would take that first sentence and change it: "The Federal Open Market Committee will keep its target range for the federal funds rate at 0 to ¼ percent," and I would put it as the second sentence in paragraph 4. The fact is that we are focused on all of the rest. So it would read, "The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. The FOMC will keep its target range for the federal funds rate at 0 to ¼ percent. The focus"—and the operative word is "focus"—"of the Committee's policies," et cetera, et cetera, et cetera.

So those are my recommendations there. I would like to add one other point, Mr. Chairman, and that is when we talk about waiting to see what happens. I think that is a very good point. We don't know what is going to come out from the fiscal side. We don't know what is going to be proposed in terms of the Treasury. President Stern made what I thought a sensible reference today not only to the aggregator bank but also perhaps to the need to close down some operations. I hope that we will bear that in mind.

I would like to leave you with just a simple analogy. In the medical field, the greatest costs are at the very end of life, the last year of life. That is, certain that the sting of death will strike, we spend most of our medical expenses keeping someone alive, knowing that they are going to die. It seems to me that we are doing that with too many institutions. You made a comment in our last conference call that you drew the line at the failure of Bank of America. I think I understand you. But I would not draw the line at letting somebody fail, and I think we need to begin to work our way toward that in order to clear the air and deal with the issues in a forthright manner. That is a separate subject. I have strayed too far.

In summary, alternative A, the first three paragraphs, with paragraph 4 from B, and consider President Bullard's grammatical change as sensible English. Thank you.

CHAIRMAN BERNANKE. My remark about Bank of America referred to a disorderly or uncontrolled failure. Obviously an orderly wind-down that preserves stability is a different matter. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Maybe I will start with a note on the political economy before turning to the statement. I had thought that we would know the situation was improved when the Fed was off the front pages. I think we have been off the front pages not because the situation has improved but because the Treasury is taking over the front pages, and that is a good thing. So I feel pretty comfortable that we are finding ourselves slowly but surely into this week's headlines that we are murky and they don't know. I am not that encouraged, as I think about this statement for us, to try to make news if we don't have it. The baton has been passed to a new Administration, and we should be cautious about stepping up before we know exactly where they are and before we know where we are. That is just an instinct, which maybe pervades and suggests a preference for alternative B.

With respect to a couple of the items that have been debated on alternative B, Mr. Chairman, I would resist the suggestion that we import the sentence in section 3 of alternative A. I prefer to keep it as is. I would rather not, to the point made at the other end of the table, add on additional risk at this point in the public square. My own sense is that the risks haven't changed materially since we last met. But adding that sentence suggests that somehow we are now acknowledging that they have, and at least to my mind it is not quite there. Even though sometimes I also have an instinct to make the statement a confessional of sorts, I think it is dangerous for us to do that until the lust is outside our hearts, so to speak. [Laughter]

I had always been accused by someone who very recently sat at this table of temporizing. But with his recent absence, I suggest that we temporize here on paragraph 3. [Laughter] Though I think it is quite possible that we will include a sentence along the lines that President Yellen suggested, put me in the temporizing camp, but please don't tell him. So what does that mean? I like alternative B as written. Not to add to your burdens, but I am also uncomfortable with the way the sentence reads on the purchase of longer-term Treasury securities. I read it and I think the markets would read it as that we have reached a decision. The way it is written now is that we have reached the decision that we are likely to do it later. I think that is not quite where we are. So given the position we are in, I would make the following minor edits, which I think change it a little. I would say, "The Committee also is prepared to purchase longer-term Treasury securities"—now I change a few words here—"if circumstances were to evolve in a way that such transactions would be particularly effective," because, again, I think as written it says "if evolving circumstances indicate." I think they read that to say, "We presume circumstances will be evolving, and we will take these actions." I guess it may be more conditional and take us slightly out of the box in which we find ourselves. So, again, my

suggestion would be, “If circumstances were to evolve in a way that indicates that such transactions would be particularly effective,” though I think it is ideal that we not find ourselves in the situation of pondering and debating in the public square. Given where we are, I think that is the best alternative we can do at this moment. Thank you.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. I just want to make an observation that, if we are going to have the economic projections come out at the same time, the public doesn’t read the Greenbook, but it does look at our projections. Between now and October the inflation forecast will dramatically change. If we are doing the long-run projections at the same time, the biggest bar is going to be at 2 percent, and our forecast is going to say that virtually none of us thinks we will get there in three years. So in terms of being factually accurate, we should at least think about the implications of our economic projections coming out at the same time.

CHAIRMAN BERNANKE. To complicate this even further, on the one hand this would be a change from December, and there has not been a big change, in our view, since December. On the other hand, Debbie points out to me that the minutes from the December meeting had exactly this sentence about inflation—that some members saw significant risks that inflation could decline and persist for a time at uncomfortably low levels, and then similar language that relates to being below the sustainable level, and so on. President Lacker.

MR. LACKER. I had a friendly amendment to Governor Warsh. “If evolving circumstances were to indicate” seems more parsimonious.

CHAIRMAN BERNANKE. All right. We are going to have to review all of these things in the end here. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I think I am marginally favoring A with B4 or B with A2 and 3. [Laughter]

CHAIRMAN BERNANKE. Let's go through that again.

PARTICIPANT. But only marginally. [Laughter]

MS. DUKE. Marginally. I could be perfectly happy with B. I think the difference is that it is not so much that we don't know yet that we are going to have to do something more. It is that we don't know yet what that something more is likely to be. The uncertainties that are in my mind and those that have been expressed are likely to be resolved by the time of our next meeting, such as the shape and the effect of the fiscal stimulus; the strategy for dealing with weaknesses in the banking system, including whether it is going to be additional capital injections, an aggregator bank, or nationalization; the pace of bank closures; and the strategy for dealing with distressed mortgages and foreclosures and, more important, our role in whatever that strategy is likely to be. If our balance sheet is not required to take problem assets from the bank balance sheets, it may very well be required to provide loans for the subsequent purchases of either those assets or the underlying collateral. Finally, with respect to commercial real estate, I think that we still need to investigate the structure of the commercial MBS and their relationship with servicers to see if we are going to have the same modification issues that we have had with residential mortgages. So with all of those unknowns that are likely to be resolved in the short term, again, I am marginally happier with conveying the rationale for greater action but not yet identifying that action. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. We have been discussing whether we should embark on a long-term Treasury purchase program or whether we should

engage in a greater magnitude or duration of agency MBS purchases. I am not sure these really are the next and best escalation options. Not surprisingly, I agree with the staff memo on long-term Treasuries, since I helped write it. [Laughter] I think the TALF expansion really is probably our next and best escalation option, but we are not prepared to do that quite at this time because we have to do that hand in hand with the Treasury. So I want to agree with Governor Warsh that this is probably a time for temporizing.

It seems clear to me that we do want to continue to expand our liquidity facilities, but to do so we have to satisfy a number of criteria. I would argue that there are five criteria that any liquidity expansion should satisfy. First, the market in question needs to be dysfunctional, and we might measure that by lack of liquidity, higher spreads, and lower volumes. Two, the dysfunction has to be tightening financial conditions. There needs to be a fairly direct link between the market in which we are intervening and economic activity. Also, if there is a clear alternative source of funds, then intervention may not be warranted. Third, we need to be confident that our facilities are likely to be helpful in improving market function and easing financial conditions. The goal should not be to displace markets but instead to provide support that primes markets to function better. I think the CPMF is a good example in that respect. Fourth, we need to be comfortable that we will indeed be secure to our satisfaction. Fifth, we have to be comfortable that exit from these programs can be managed to avoid any conflict with our dual mandate.

The TALF program, especially if the Treasury provides us with some support on the balance sheet exit issue, appears to fit best with these criteria. If the TALF works as anticipated in restarting the consumer ABS market and bringing down AAA-rated ABS spreads, then we may wish, with the Treasury as partner adding additional TARP capital, to broaden it to other

asset classes that are also in distress. In particular, the CMBS market and the nonconforming RMBS market appear to be very good candidates. It is not just the financing related to new activity that matters but also the ability for maturing debt to be refinanced. This is a particularly important issue in both commercial real estate and nonconforming residential mortgage markets. I believe the TALF program is very important because it provides three elements that are not broadly available to private investors right now—(1) term funding, (2) leverage and balance sheet capacity, and (3) protection against tail risk. The TALF would bypass banks and dealers and provide balance sheet capacity directly to risk capital—capacity that today is unavailable because of the deleveraging that is taking place among banks and dealers and making them much less willing to extend such credit. It also provides protection against tail risk. Because the financing is done on a nonrecourse basis, the most an investor can lose is the size of the haircut. In this sense, although the TALF program is a lending program, one can also consider it to be a contingent purchase program. In very bad states of the world in which AAA-rated consumer ABS tranches decline sharply in value, these securities will be put to the Federal Reserve and placed in an SPV capitalized by TALF money.

The second issue I want to talk about is the exit issue. Although I agree that this is a very important topic, I wonder how helpful it is to worry about this publicly, for two reasons. First, anxiety expressed by us about the exit issue may fan fears that we will not be able to exit smoothly and avoid an inflation problem. If market participants were broadly to share this opinion, the result could be higher risk premiums and tighter financial market conditions. Second, the more we express concern with exit and our balance sheet, the more we may alter expectations about how much we are willing to do to support the economy. I think we should err on the side of reinforcing the message that the FOMC will do all it can to ease financial

conditions and stimulate the economy. Worrying publicly about the balance sheet seems to undercut that goal to some degree. At the same time, we should work aggressively to make sure that our balance sheet will not interfere with the appropriate conduct of monetary policy later, and we should clearly explain to the public our ability to do so.

In terms of the statement, I prefer alternative B language generally, but I would suggest two alterations. In paragraph 2, the language that “the outlook for the economy remains weak” seems too mild to me and could be taken by market participants as sounding complacent. I prefer the language from alternative A, which states that “the economy has weakened somewhat more than anticipated,” which I believe is factually correct and provides greater information about how the data are coming in relative to our forecast. I also think it signals greater concern by the Committee about the outlook, which is where the Committee actually is in terms of thinking about policy going forward. The second alteration I would suggest in alternative B is where we are talking about the implementation of the TALF. We say “next month” in alternative B. Given that our ability to enact this program is subject to some degree to the Treasury’s coming along with us in a timely fashion, I think it would be better to change “next month” to “later this winter,” which will give us until March 21, giving us a few more weeks. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. That last thing worries me quite a bit. I don’t know. What did we have in December?

MR. LACKER. “Later this season.”

MR. WARSH. How about “later”? [Laughter]

MR. LACKER. “In the future.”

MR. MADIGAN. Another possibility might be just to say “soon.”

CHAIRMAN BERNANKE. I thought of that as well, but does that satisfy you there, Vice Chairman?

VICE CHAIRMAN DUDLEY. I think “later this winter” does provide an endpoint. I am not sure how long “soon” is.

MR. WARSH. It is always winter somewhere. [Laughter]

CHAIRMAN BERNANKE. We have a lot to go through here. So just to get factual information here, my understanding from the staff was that we were well on track to implement during February, and I have heard nothing from the Treasury to indicate anything other than support for this program.

VICE CHAIRMAN DUDLEY. Yes, I think that is correct, although the Treasury right now is scrambling to get their new staff up and running. So there is some risk that what had been agreed to by the old Treasury now needs to be sort of relitigated with the new Treasury. That could delay our putting out a term sheet to market participants, which they really need to have several weeks ahead of time for this program to get up and operational. I think there is a good chance that we are still going to be able to make February or certainly early March, but we probably want a bit of wiggle room there because we don’t have complete control of the process.

CHAIRMAN BERNANKE. Are you okay with “will soon implement”?

VICE CHAIRMAN DUDLEY. Yes. I would prefer “winter,” but I can live with that. “Soon” is factually correct. If we take a broad view of what “soon” means—yes.

CHAIRMAN BERNANKE. All right. Okay. Brian, let’s accept that one, unless—  
President Fisher.

MR. FISHER. Can’t we just say, “The Federal Reserve will be implementing”?

CHAIRMAN BERNANKE. All right. Is that okay with everybody?

VICE CHAIRMAN DUDLEY. To not specify it.

CHAIRMAN BERNANKE. All right. “The Federal Reserve will be implementing.” Thank you, and thanks, everyone, for the useful comments. Let me try to address a few other things here. I think we are very much in agreement on the substance—that we want to maintain an aggressive stance. I also would just say, as a general point, that I fully agree—and I am sure everyone does—that we want to look for better metrics and better ways of communicating and expressing. As a general invitation to all of you and your staffs, you don’t have to wait until the next meeting, and you don’t have to wait until the week before the next meeting. We are delighted to hear explicit proposals for metrics or communication or statements that you would like to circulate, and we can discuss throughout the entire intermeeting period. There is no need for us to wait until the last minute. So let me just encourage you to follow through with that, and let us see your proposals.

There have been a number of suggestions. In the spirit of temporizing, I do believe that, although we want to convey our concern about the economy and our willingness to be aggressive with policy, there really is a high likelihood that we will learn a great deal in the next intermeeting period about what the Treasury will be proposing, what the Congress will be proposing, and what our role will best be fitting into those overall ideas. Therefore, hearing you, I am a bit reluctant to commit at this moment to a specific increase in either our GSE or our Treasury purchase program. Perhaps we should have made more explicit yesterday what our plan was going to be. So I would prefer to maintain the optionality of alternative B, which talks about standing ready both to expand the GSE program and to purchase Treasuries under the appropriate circumstances, and I will come back to that.

The second set of suggestions had to do with the characterization of the economy and inflation. There are two in particular. One was whether to characterize the economy as weak or weakened somewhat more than anticipated. I am actually a little surprised to hear the support for “weaker than anticipated” in that the Greenbook has not really changed much since December and the thrust of the commentary was that things were weak but not much weaker than anticipated. I am in your hands. I am going to be taking some straw votes in a few minutes, so this is just a question. My sense on that one is that I could consider different language, but it seems as though “the outlook remains weak” conveys our view. I am not sure that I have heard that the outlook itself has changed significantly since our last meeting. That was my sense, but I am willing to be instructed on that. On the statement about inflation being below the level consistent with economic growth and price stability, a number of people suggested that. I think I am okay with that. It was introduced in the minutes. What I am going to do in a minute—let me just warn you—is take a couple of straw votes, and I will ask all participants to tell me whether you would like to add that sentence or not. I don’t know any other way to resolve this, since I personally think we could go either way.

Other issues—I think it is a very interesting suggestion to move the material about the federal funds rate into paragraph 4. I wish that you had sent that in a week ago so we could have thought about it. I think it makes sense, but I guess at the last minute here I am a bit anxious about making that big a change in the structure of our statement. But I reiterate our interest in hearing proposals for statements throughout the intermeeting period.

On the issue about Treasuries—it is difficult in both directions. President Plosser raises the question about raising a possibility and then not doing it, which is certainly an issue. On the other hand, we have also been criticized for calling audibles on the line at the last minute and

surprising people. So it is difficult. Based on the discussion and on things that President Lacker said, and so on, I think it is in fact a possibility that we would take this route. I personally think that we shouldn't rule it out. It is not something we want to undertake yet because we certainly want to find out what the other options are going to be in terms of the other things that the Treasury is proposing and so on.

MR. PLOSSER. Mr. Chairman, on that point—it does concern me that this is a bit of a conundrum about how we do the statements, but I would be more comfortable with the language that Governor Warsh suggested, which gives a little more conditionality to it.

CHAIRMAN BERNANKE. Well, I was diagramming that sentence. [Laughter]

MR. PLOSSER. I am sorry. I didn't even write it down. It just sounded better.

CHAIRMAN BERNANKE. Well, as simplified by President Lacker, it was “is prepared to purchase longer-term Treasury securities, if evolving circumstances were to indicate that such transactions would be particularly effective.” I think that's three subjunctives. [Laughter]

MR. WARSH. I think the Lacker suggestion is “if circumstances were to indicate that.”

MR. LACKER. Right. Oh, I didn't take out “evolving,” but I am indifferent on that. “Evolving” seems to emphasize—

CHAIRMAN BERNANKE. But see, the purpose of “evolving” is the sense that—don't you want to convey the optionality that this is going to take place and will be evaluated over time? The word “evolving” suggests an ongoing process.

MR. WARSH. The delta is, Are the evolving circumstances going to evolve as we presume, in which case we have pre-committed to it? Or is our decision going to be based on whether the evolving circumstances change in one way, which then triggers our “yes”?

CHAIRMAN BERNANKE. So, Governor Warsh, there is an “if” here. I mean, that certainly implies that our action is conditional on certain things happening that may or may not happen.

MR. WARSH. May I use a life line? [Laughter] Brian, do you read it, as written, to say that we have reached a decision and our decision is contingent upon facts of the world in the future or that we have reached a decision and, if the world proceeds as we expect it will, then we will do this? I am not sure I picked up from your introduction which you think you and markets would read.

MR. MADIGAN. I read this as saying that we don’t know how the circumstances will evolve, but if they evolve in the way that indicates that this would be particularly helpful, then we are prepared to purchase.

CHAIRMAN BERNANKE. Well, for example, one possible theory would be that we will respond only if there is a big backup in rates and that seems to be an effective approach. That would be an example of evolving circumstances. My guess is—though it is always foolish to make guesses—that this will be viewed as slightly negative news, not positive news, for the Treasury market. We will have to see.

MR. WARSH. I would say that Treasury markets are sort of 50/50 on when we are going to go forward. So this is really the question: Does it go 55/45 or vice versa? It is hard to know. I think the sense is that the more they read the “if” to be an “if,” the more conditional it is and the more consensus there is around the table, Mr. Chairman. So it is really just whether we think that there is sufficient conditionality as written or whether the Lacker–Warsh thing adds to the conditionality.

CHAIRMAN BERNANKE. Well, I fear that taking out “evolving” actually reduces the clarity because “evolving” implies an ongoing process. Without the word “evolving,” it suggests that we are still evaluating the current situation and then trying to assess whether the conditions are met to take the action. President Fisher.

MR. FISHER. Mr. Chairman, the action words are “prepared to purchase.” Are we going to maintain those in there, or would we change it, keep “evolving,” and put “will consider purchasing”?

CHAIRMAN BERNANKE. Again, we already have a number of subjunctives.

MR. FISHER. I think it is the “prepared to purchase” that indicates a decision made, and that is the phrase that bothers me.

CHAIRMAN BERNANKE. One reason that I was comfortable with this language was that I do think that we will not be maintaining the world in suspended animation indefinitely. We will have much more clarity, I believe, by the next meeting, and at the next meeting we would be able to say something like “the Federal Reserve will be focusing its attention on X, Y, or Z.”

MR. KOHN. Mr. Chairman, I think putting the “particularly” in there actually steps us back a little, despite the “is prepared to.” It is an “if” clause already. I don’t see how “if circumstances were to indicate” is different from “if evolving circumstances indicate,” particularly with the “particularly” in there.

CHAIRMAN BERNANKE. And I don’t want to pull back completely because I do think there is a realistic possibility—and I realize that there are different views—that it is going to evolve over time. We still have a lot of discussion and further thinking to do, not only about the

specific types of purchases and programs but also about how we are going to evaluate the overall thrust of policy, and so on.

MR. WARSH. To conflate game shows, I don't want to be voted off the island.

[Laughter]

CHAIRMAN BERNANKE. All right. Have I addressed the major questions? I don't know. Okay. What I would like to do is propose alternative B with two issues that we will now take a straw vote on. The one change we have agreed on so far is "the Federal Reserve will be implementing the TALF." The other two possible changes have to do with the characterization of the economy. The first one would be in B2, to replace the first sentence with the first sentence from A2, "suggests that the economy has weakened somewhat more than anticipated."

MR. EVANS. Mr. Chairman, it is the "anticipated." Couldn't we just say, "The economy has weakened further"?

CHAIRMAN BERNANKE. Well, there is a distinction between the outlook and the economy itself. The outlook remains weak.

MR. EVANS. In this case, it doesn't say "outlook."

CHAIRMAN BERNANKE. All right. Well, do you want to say, "The economy has weakened somewhat further"?

MR. EVANS. That would be okay with me.

CHAIRMAN BERNANKE. President Pianaalto, do you have a view?

MS. PIANALTO. That sounds fine.

CHAIRMAN BERNANKE. How about "suggests that the economy has weakened further"?

MR. KOHN. What do we have about the outlook then?

CHAIRMAN BERNANKE. No one seemed to object to the last sentence, which gives a recovery but with downside risks.

MR. KOHN. But it doesn't have a sense that the outlook is weak until that recovery. I have to think about this. The outlook remains weak, and there is—

CHAIRMAN BERNANKE. I think “weakened further” is not dangerous.

MR. KOHN. Okay. So it's the economy rather than the outlook that has weakened further.

MR. EVANS. It is as mild as saying we have stepped from the fourth quarter into the first quarter, which is going to be a contraction.

MR. LACKER. I'm sorry. I missed what's on the table. Is it that the economy has weakened further or that the outlook has weakened further?

CHAIRMAN BERNANKE. The economy.

MR. LACKER. The economy. Okay. That makes sense.

CHAIRMAN BERNANKE. Okay. So I hear a slight preference for—okay, Brian—“suggests that the economy has weakened further.”

All right. The last question, then, is whether or not to add or replace B3 with A3. That would add the sentence that “the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability.” I propose to take a straw vote of all of the participants—not just members but participants. All those in favor of making the change? One, two, three, four, five, six, seven, eight, nine. All opposed? One, two, three, four, five, six. All right. I think it is a reasonable change. I don't think it is dramatic. Any other comments?

All right. I guess we have made three changes now. I propose alternative B. I think it conveys the sense of the Committee. It maintains, as much as possible, our optionality while suggesting that we are going to be aggressive. Again, we will be looking both to the Treasury and to the government for their actions over the next intermeeting period. Once again, I invite members and other participants to submit their suggestions for communication and measurement over the intermeeting period.

I probably should mention that there will be opportunities for us to communicate about our views further. In particular, I have a testimony on February 10 on our transparency and our communication. I have a speech at the National Press Club, which will have more of a press conference type of flavor, sort of between a speech and a press conference, on February 18. Then, I have the Humphrey-Hawkins hearings, followed by Budget Committee hearings, so you will be seeing a lot of me on television. My complexion is not usually green but probably will be by then. [Laughter] So we will have a chance to communicate. And I hope that each of you, in your own speeches and other interactions with the public, will take as much of the opportunity as you can to try to explain what we are doing, how we are thinking about the economy, and how we are thinking about our policy in this unusual environment. Any other comments? President Fisher.

MR. FISHER. I just want to thank you, Mr. Chairman, for the spirit in which we have conducted these conversations in this meeting. As you know, at least of some of us felt that we might be disenfranchised. You may be enfranchising us too much. [Laughter] But we appreciate it. At least speaking for myself, I want to thank you.

CHAIRMAN BERNANKE. Thank you. All right. If we are ready for a roll call vote.

MS. DANKER. Would you like me to read the statement, as amended?

CHAIRMAN BERNANKE. Why don't you?

MS. DANKER. Okay. "The Federal Open Market Committee decided today to keep its target range for the federal funds rate at 0 to ¼ percent. The Committee continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

Information received since the Committee met in December suggests that the economy has weakened further. Industrial production, housing starts, and employment have continued to decline steeply, as consumers and businesses have cut back spending. Furthermore, global demand appears to be slowing significantly. Conditions in some financial markets have improved, in part reflecting government efforts to provide liquidity and strengthen financial institutions; nevertheless, credit conditions for households and firms remain extremely tight. The Committee anticipates that a gradual recovery in economy activity will begin later this year, but the downside risks to that outlook are significant.

In light of the declines in the prices of energy and other commodities in recent months and the prospects for considerable economic slack, the Committee expects that inflation pressures will remain subdued in coming quarters. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. The focus of the Committee's policy is to support the functioning of financial markets and stimulate the economy through open market operations and other measures that are likely to keep the size of the Federal Reserve's balance sheet at a high level. The Federal Reserve continues to purchase large quantities of

agency debt and mortgage-backed securities to provide support to the mortgage and housing markets, and it stands ready to expand the quantity of such purchases and the duration of the purchase program as conditions warrant. The Committee also is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. The Federal Reserve will be implementing the term asset-backed securities loan facility to facilitate the extension of credit to households and small businesses. The Committee will continue to monitor carefully the size and composition of the Federal Reserve’s balance sheet in light of evolving financial market developments and to assess whether expansions of or modifications to lending facilities would serve to further support credit markets and economic activity and help to preserve price stability.”

This vote will also encompass the directive from page 48 of the Bluebook.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
Governor Duke	Yes
President Evans	Yes
Governor Kohn	Yes
President Lacker	No
President Lockhart	Yes
Governor Warsh	Yes
President Yellen	Yes

CHAIRMAN BERNANKE. Thank you very much. A couple of other small items.

Item 11 is the longer-run projections. Many of you commented. I heard no concerns about it, so why don’t we go ahead and—President Lacker.

MR. LACKER. I pointed out yesterday that the distribution of the numbers for inflation had shifted notably. I understand that people’s views about the appropriate inflation rate—the steady-state inflation rate that they would put in a Taylor rule or some other reaction function—

might change from quarter to quarter. I also pointed out that I thought the motivation for doing that was dissatisfaction with the extent to which the third year of our forecast inflation changed from quarter to quarter and that it diminished the extent to which that report of our forecasts served as a proxy for our Committee's agreed-upon numerical inflation objectives. At our last meeting, we discussed adopting an explicit numerical inflation objective. That hasn't appeared on the agenda today.

CHAIRMAN BERNANKE. I was about to report.

MR. LACKER. Oh, okay. I guess my attitude toward the longer-run projections is that I remain unconvinced, as I was in our October discussion, that the benefits exceed the costs, and I wanted to use the opportunity here to ask about the status of adopting a numerical objective for inflation.

CHAIRMAN BERNANKE. I agree with you that this has disadvantages and advantages relative to a formal target. Absolutely. I wanted to thank everybody for the very useful discussion that we had in the videoconference, and I promise not to have a full discussion of inflation targets any time soon because I do think we do have a pretty good sense of people's views. What I took from the conference call, among other things, was that the Committee was willing to grant me some discretion to try to discuss with the political bodies what their views would be on going forward with an explicit objective.

As I mentioned to you even before the meeting, I had spoken to the Administration, and I have had some follow-up discussions there. My sense is that there would not be any serious opposition from that side, although I need to continue to talk with them. But the more difficult question is on the congressional side, and I have a meeting with Barney Frank on Monday, in which I will raise this issue among other issues. My sense of the meeting was that it was worth

doing some socializing and some exploring of these issues but that we wanted to be very careful and very sensitive at this difficult juncture about not creating new political problems for ourselves but only if we can persuade the leaders of the country that this is something constructive. So I will continue to try to do that and continue to work on this. I do think, frankly, that this continued expansion of our projections actually makes it much easier to sell because it creates a context in which the Congress can see that this is only part of a program that involves meeting both parts of our mandate.

MR. LACKER. I see. Mr. Chairman, do you view it as feasible, likely, or very unlikely that consultations could result in your Monetary Policy Report to the Congress this season involving a revelation of an objective? Or is that too much to hope for?

CHAIRMAN BERNANKE. I don't know. I will have to see. It will depend a lot on the reaction I get from a few key people.

MR. LACKER. Okay. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. Vice Chairman, did you have a comment?

VICE CHAIRMAN DUDLEY. Yes. I guess I am somewhat less than fully enthusiastic about publishing long-term projections at this time. I could support it, but I just want to make a couple of points. First, I think it is a somewhat awkward time to introduce long-term projections. Our forecasts are almost certainly going to be very wrong, given the level of uncertainty. Moreover, long-term projections may be viewed by market participants as off point. The economy is sinking rapidly, yet the FOMC is spending its time constructing forecasts for 2011 and beyond.

Second, if the goal is to introduce long-term projections to communicate the Committee's views about parameters such as the NAIRU, the potential growth rate, and the desired level of

inflation, wouldn't it be better to simply proceed and publish those measures rather than long-term projections, which are just an approximation of those parameters?

Third, I think the individual long-term projections are difficult to link back to the projections for 2011. If one of the primary objectives of the long-term projections is to provide some background for how the projections past 2011 will converge to the Committee's goals, you might want to consider different ways of constructing the central tendency forecast.

Fourth, I worry a little about what happens when the composition of the FOMC changes. The long-term projections that result might change because of changes in the composition, not because of an underlying change in view by individual members. I think it would be hard for market participants to know how to judge those changes over time, quarter to quarter, as the projections evolve.

So I can support it, but I am not enthusiastic.

CHAIRMAN BERNANKE. Okay. Thank you for that. Again, I think we see that there are both advantages and disadvantages of doing this. I guess I would disagree only slightly on the issue of timing in that, to the extent that this does give some sense of what the Committee's preferences are on appropriate monetary policy over the longer term, certainly an issue that has come around the table quite a bit is the need to stabilize inflation expectations in a situation where they might be quite potentially unstable in either direction. So that is one consideration. President Evans.

MR. EVANS. May I make just one quick point? President Lacker mentioned that there was some concern about changes in the inflation long-term projection on a quarter-to-quarter basis. I don't interpret the distribution that way. It seems to me as though it was probably importantly influenced by our discussion at the videoconference, and it was a one-off type of

change. I know I changed my forecast from  $1\frac{3}{4}$  to 2 percent. I had previously felt constrained that  $1\frac{3}{4}$  was pretty much a Committee consensus midpoint, and so I figured we would be acting that way. But now, with more people thinking it was 2, that was how I changed it. I get a sense that others around the table may have done the same thing.

CHAIRMAN BERNANKE. It seemed to be noted that the mode is 2, and so the majority believe that 2 is the right number, and there are arguments for allowing a slightly higher target given the recent experience. Other comments about the projections or inflation targets? Well, with the caveats that were raised, I still believe that there was a general view that we ought to go ahead with the longer-term projections as part of the summary that will be published along with the minutes. So why don't we do that. I have updated you on inflation targets, which is still really at just the discussion stage.

Let me just ask you quickly—this was our first experiment with the somewhat modified meeting structure—either now or in the intermeeting period, give us your feedback or comments about the effectiveness of this structure. Also, if we are going to have an issue in a one-day context, we are going to have find ways to condense parts of the discussion some way or another, perhaps by sending out materials in advance. Is there anyone who would like to comment at this point about the meeting structure or make suggestions? President Rosengren.

MR. ROSENGREN. I wonder if we should have two-day meetings until we get into a more status quo situation. Rather than shortening the meetings, I think it was actually quite productive to have the discussion. We might want to think about whether two-day meetings, until we get more clarity as to what policy should be going forward, would be helpful.

CHAIRMAN BERNANKE. Is that a widespread view? All right. We will investigate. We will make sure that it works with people's schedules and see if it is feasible. But I agree that

it would be very difficult to do what we did in this meeting in one day. Other comments or feedback? All right. Hearing none, the next meeting is Tuesday, March 17. That's St. Patrick's Day, isn't it? Very nice. [Laughter] We have a lunch available. There is no briefing planned, so our work is done. I hope you will have a safe trip through the weather back to your home cities. Thank you very much.

END OF MEETING