

**Meeting of the Federal Open Market Committee on  
November 3–4, 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, November 3, 2009, at 2:00 p.m., and continued on Wednesday, November 4, 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. Tarullo  
Mr. Warsh  
Ms. Yellen

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

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

Mr. Madigan, Secretary and Economist  
Mr. Luecke, Assistant Secretary  
Mr. Skidmore, Assistant Secretary  
Ms. Smith, Assistant Secretary  
Mr. Alvarez, General Counsel  
Mr. Baxter, Deputy General Counsel  
Mr. Sheets, Economist  
Mr. Stockton, Economist

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

Mr. Sack, Manager, System Open Market Account

Ms. Johnson, Secretary of the Board, Office of the Secretary, Board of Governors

Mr. Frierson, Deputy Secretary, Office of the Secretary, Board of Governors

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

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

Ms. Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Ms. Edwards, Messrs. Levin and Nelson, Senior Associate Directors, Division of Monetary Affairs, Board of Governors; Messrs. Reifschneider and Wascher, Senior Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Leahy,<sup>1</sup> Associate Director, Division of International Finance, Board of Governors

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

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

Ms. Ihrig, Section Chief, Division of Monetary Affairs, Board of Governors

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

Mr. Williams, Records Management Analyst, Division of Monetary Affairs, Board of Governors

Ms. Holcomb, First Vice President, Federal Reserve Bank of Dallas

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

Mr. Barkema, Mses. Mester and Mosser, and Mr. Waller, Senior Vice Presidents, Federal Reserve Banks of Kansas City, Philadelphia, New York, and St. Louis, respectively

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

Mr. Burke and Ms. Yucel, Vice Presidents, Federal Reserve Banks of New York and Dallas, respectively

Ms. Sbordone and Mr. Sill, Assistant Vice Presidents, Federal Reserve Banks of New York and Philadelphia, respectively

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

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<sup>1</sup> Attended portion of the meeting relating to financial developments, open market operations, and System facilities.

**Transcript of the Federal Open Market Committee Meeting on  
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**November 3, 2009—Afternoon Session**

CHAIRMAN BERNANKE. Good afternoon, everybody. As has been our custom recently, this is a joint Board–FOMC meeting. Can I get a motion to close the meeting?

MR. KOHN. So moved.

CHAIRMAN BERNANKE. Thank you. We would like to welcome to the table President Kocherlakota from Minneapolis. Narayana is a very distinguished scholar. Everyone who is familiar with modern economics would know his name and his work. He is new to the FOMC but not to the Fed. You have been a staff member and a research consultant in Minneapolis for more than a decade. So we look very much forward to working with you and getting the benefit of your insight. Welcome.

MR. KOCHERLAKOTA. Thanks a lot. I am honored to be here.

CHAIRMAN BERNANKE. The first item on our agenda is financial developments, open market operations, and [laughter]—

MR. PLOSSER. Actually, Ben, this is for you.

CHAIRMAN BERNANKE. Let the record show that President Plosser is wearing a Phillies hat. [Laughter] We don't take sides here in Washington. All right.

MR. PLOSSER. I thought we have all Red Sox fans and all Mets fans with us.

[Laughter]

CHAIRMAN BERNANKE. Okay. Let me turn to Brian Sack for a report on financial developments, open market operations, and System credit facilities. Brian.

MR. SACK.<sup>1</sup> Thank you. The surge in the prices of risky assets that has taken place since March cooled off over the intermeeting period, as investors took note of the economic risks that remain and the ongoing difficulties facing the financial sector. As shown in the top left panel of the first exhibit, broad equity indexes declined modestly, on net, since the last FOMC meeting. That is a notable downshift from the gains posted over the previous four intermeeting periods, which averaged over 8 percent per period.

The drop in equity prices occurred despite favorable earnings surprises for the third quarter. As shown in the top right panel, more than 80 percent of the firms in the S&P 500 index beat expectations—an unusually high portion by historical standards. However, investors also focused on the growth of revenue, which was generally less impressive, and questioned the sustainability of profit growth. Moreover, equity prices no longer benefited from the substantial upward revisions to the economic outlook that had propelled earlier gains. Indeed, recent economic data have been seen as mixed, and the GDP forecasts of most market participants were essentially unchanged from the previous FOMC meeting, as indicated in the dealer survey responses in the middle left panel.

One factor weighing on stocks was a growing concern among investors about prospects for financial firms. Banks' earnings reports continued to highlight many of the problems facing that sector, and investors also became increasingly concerned about how pending regulatory changes would affect those institutions. As a result, financial shares lost ground over the intermeeting period, as shown in the middle right panel. Nonfinancial firms continued to be seen as relatively healthy. Indeed, yield spreads on corporate bonds narrowed further over the intermeeting period, although at a less rapid pace than earlier in the year, as shown in the bottom left panel.

Overall, despite their sharp gains from earlier in the year, we do not see equity or corporate bond prices as stretched well beyond fundamental values. This can be seen in the Board's equity premium measure, shown to the right, which is wide by historical standards. It is also reflected in recent work by the New York Fed staff on high-yield bonds, suggesting that those yield spreads are near the levels expected given the outlook for defaults. Our assessment is that, overall, the levels of U.S. asset prices appear reasonable. Nevertheless, this assessment could change if the very rapid gains from earlier in the year were to continue. In this regard, the flattening out of asset prices since the last meeting could be regarded as a favorable development, as it suggests that those prices are still connected to fundamentals.

As shown in the next exhibit, Treasury yields were little changed, on balance, since the last FOMC meeting. In part, this pattern reflects that the incoming economic news has been mixed and has not provided any clear direction for yields. Investors also took note of the considerable volume of commentary by Fed officials. As shown in the top right panel, FOMC members gave no less than 30 speeches in the month of October. I'm all for Central Bank transparency, but this may be going a bit

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

far. [Laughter] Many of those speeches were seen by the markets as containing directional information about the likely course of monetary policy, and investors saw some of those messages as conflicting with one another. In part for this reason, investors marked down the grade they gave you on communications in our dealer survey. Despite all of the focus on these speeches, the implied policy path was little changed, on net, as shown in the middle left panel. Investors continue to expect policy to remain on hold until at least the middle of 2010.

This accommodative policy stance is one of the factors that market participants see as contributing to the decline in the dollar from earlier this year, as shown in the middle right panel. The degree of angst about the dollar seems to have been building in recent months, as its weakness has been widely discussed among market participants. A key policy question is whether the dollar movement reflects an appropriate response to the outlook for the economy and policy or whether it is the beginning of a more abrupt decline that could ultimately produce a problematic increase in inflation or inflation expectations. We lean toward the former explanation. The decline to date has been smooth and orderly—at a pace not much different from that seen before the fall of 2008. In fact, over this intermeeting period, the dollar was essentially flat against our major trading partners. Moreover, some of the recent weakening reflects an unwinding of the surge in the dollar that took place during the financial crisis. It is also worth noting that currency options markets do not seem to be pricing in considerable odds of an abrupt dollar decline, as indicated in the pricing of risk-reversals against the euro, in the bottom left panel. These do not show a premium for protection against sizable dollar depreciation, and in fact, are now pointed in the opposite direction.

That said, we are mindful of the risks that are present, given the widespread focus of investors on this issue. Moreover, the Treasury market is pricing in a bit more inflation protection than was the case at the last FOMC meeting. As shown in the bottom right panel, some measures of forward breakeven inflation rates have turned higher of late, though they are still within historical ranges. In any event, we will closely monitor these markets for any signs that a more definitive correlation between dollar weakness and inflation expectations is developing.

As covered in your next exhibit, the Desk completed the last of its scheduled Treasury purchase operations last week. I thought it would be useful to provide a summary of the program and to discuss its effects. In total, the Desk conducted sixty outright purchase operations in Treasury securities, bringing the cumulative total purchases to \$300 billion on the nose. The top left panel shows the pace of purchases that we implemented over the program, including the tapering of the purchases at the end of the program. The top right panel shows the distribution of the securities purchased across maturities. As was announced in a Desk statement at the start of the program, the purchases spanned all outstanding maturities beyond a year, but the majority of securities purchased were in the two- to ten-year sector. With these purchases, the Desk removed a considerable portion of the duration that was issued to the market over that period.

The middle two panels indicate that market functioning has improved over the period covered by the purchase program. The left panel shows the amount of dispersion across Treasury yields relative to our smoothed yield curve, which could be taken as a proxy for the degree to which balance sheet constraints and extreme risk aversion prevented relative value trading in the market. This measure has come in notably, with many attributing some of that pattern to our purchases. Liquidity measures for the Treasury market have also improved. Bid-asked spreads have also come in from the high levels earlier this year, and the depth of market quotes, shown to the right, has risen. Overall, the Treasury market has recovered notably from the strains during the crisis, and there are no signs that our pullback from the market is causing that improvement to reverse.

The other key issue is whether the Treasury purchases, along with the other LSAP programs, were successful at lowering longer-term yields. Some have pointed to the fact that the 10-year Treasury yield has risen since the onset of purchases and have used that fact to argue that the program was not effective. We do not find that argument particularly compelling. The problem is that it fails to define the counterfactual of what would have happened to yields in the absence of the purchases. In fact, many regression models of longer-term yields would have predicted them to rise over this period. This can be seen from a modification of the Backus–Wright yield model from their 2007 Brookings publication, shown in the bottom left panel. The fact that yields remain below the model’s prediction is at least suggestive that the asset purchases have had some effect. A different approach to measuring the effects of asset purchases is based on event-study. As was presented to the Committee earlier in the year, this exercise takes a list of dates on which important announcements were made about LSAPs and aggregates the movements in yields on those dates. The updated results, shown in the bottom right panel, indicate that the yield movements around LSAP announcements were substantial. Together, the regression and event-study evidence suggests that LSAP programs have had notable effects in lowering Treasury yields. We associate these effects primarily with changes to the stock of securities, arising through a portfolio balance channel, and hence we would not expect them to unwind as purchases end. To date, that appears to be playing out. Indeed, the market barely noticed the end of the Treasury purchase program—which is what we had hoped would happen.

As I noted in the last briefing, we are somewhat more worried about how the markets will react to the winding down of the agency debt and MBS purchase programs. Even in those markets, however, the basic message is “so far so good.” The top panels of exhibit 4 show the pace of purchases for agency debt and MBS. As can be seen, the Desk has begun to follow the tapering program that was decided at the last FOMC meeting. This strategy will slowly reduce the pace of purchases while still getting to total levels consistent with the Desk directives. For MBS, the projected path takes total purchases to \$1.25 trillion. For agency debt, the Desk directive had given us some flexibility, but we were following a path aimed at a total purchase amount of \$175 billion.

As could be seen in the event-study results, the effects of the LSAPs appear to have been even greater on agency securities and MBS than on Treasury securities, causing those spreads to narrow. The middle panels show the history of spreads on the two asset classes. As we have noted before, spreads relative to Treasury securities appear unusually tight. Part of the concern of market participants is that the purchase programs have driven spreads to these narrow levels and that the end of the programs will cause them to move back to historical norms, pushing agency securities and MBS rates higher. However, it is hard to judge the magnitude of this risk. In that regard, it is worth noting that the MBS spread does not look unusually narrow when measured relative to swaps, as shown to the left.

MBS purchases may have an additional effect on MBS rates beyond their influence on option-adjusted spreads. Purchases of MBS not only remove duration from the market; they also remove prepayment risk. Investors generally find it challenging to hold the negative convexity of MBS associated with prepayment risk, and hence they demand an extra return to bear that risk, which keeps MBS rates higher than they would otherwise be. The removal of a considerable amount of this risk by the Fed's purchases could therefore work to lower MBS rates by offsetting this effect. Accordingly, it might be useful to watch the pricing of instruments that markets use to hedge this risk, such as the implied volatility from swaptions shown in the bottom left panel, to see if they come under any upward pressure as the Fed backs away from its MBS purchases.

Lastly, I would like to make a note about the distribution of our MBS purchases. There was a period earlier this year when refinancing activity led to a greater amount of production of new MBS with coupons of 4 and 4.5 percent. The Desk strategy taken at that time was to concentrate purchases in those coupons in order to soak up the new supply and facilitate this refinancing. This can be seen in the current distribution of our MBS holdings, the dark blue bars in the bottom right panel. More recently, we have begun to spread out our purchases into higher coupons and plan to continue to do so. This strategy is reflected in the distribution of holdings that we project for the end of the program, shown by the light blue bars. The purpose of this shift is to achieve greater diversification in our holdings across coupons. The higher-coupon securities will be relatively more liquid than the lower-coupon securities in the event that mortgage rates increase, which could prove useful if the Committee wants to engage in larger amounts of dollar rolls or to conduct outright sales.

These asset-purchase programs have pushed the total size of the balance sheet up to about \$2.2 trillion, as shown in the top left panel of the last exhibit. Outright asset holdings now account for about \$1.7 trillion of that total. It is this component of the balance sheet that presents the most significant exit challenges, as those holdings will run off only slowly on their own and will therefore keep reserves in the banking system for a long time. The staff's work on developing tools for draining reserves and for raising short-term interest rates is advancing well, as Jim Clouse and Chris Burke will cover in their briefings. And the market seems generally to accept that we

have sufficient tools to exit. However, market participants are increasingly looking for guidance on how the tools will be used—for example, what will be the timing of reserves draining relative to increases in the IOER rate and what quantity of reserves will be taken out of the system.

As shown to the right, the Desk asked dealers about the likelihood of various tools being used to drain reserves. Not surprisingly, respondents placed high odds on the FOMC using reverse repurchase agreements and term deposits. What was more surprising was that the respondents put about 50 percent odds on using outright asset sales as well. However, there was considerable disagreement about the likelihood of asset sales, with the responses ranging from 5 percent to 100 percent odds, as indicated by the line.

In contrast, the exit from liquidity facilities is already well along toward completion. Those facilities were priced to facilitate their wind-down. As shown in the middle left panel, that process has worked well, as the improvement in money market functioning and the abundant supply of reserves have made our programs unattractive to most borrowers, leading to a dramatic shrinking in the volume of activity at those programs. Currently, only four of the programs have any outstanding volume, with the total amount of credit totaling about \$200 billion.

Although the exit design has worked well overall, it might require some effort to get the remaining balances to shrink to zero in an orderly way. Indeed, as I pointed out in my last briefing, the Fed faces an adverse-selection problem in which the remaining firms are the ones with more-limited opportunities to obtain outside financing. With this in mind, the Federal Reserve staff has begun to engage the firms remaining in the facilities on a bilateral basis to encourage them to plan for transitioning away from the Fed's facilities. These discussions have already helped this process notably. The remaining firms have received a clearer signal that such a transition is necessary and have made progress toward developing alternative liquidity plans. As indicated in the middle right panel, the number of firms remaining in the facilities has declined, and we will continue to engage those remaining firms to ensure a smooth exit.

I will close by discussing another issue in money markets—the approaching year-end. The bottom left panel shows the estimated effect of the year-end on the two-month LIBOR rate and compares it with the levels observed at this point during past year-end periods. Unlike previous year-ends, we are not seeing much upward pressure on the LIBOR rate. This observation could reflect the fact that the demand for unsecured credit is fairly limited given the abundance of reserves and liquidity in the system.

Where we may see some unusual behavior over the year-end is in the Treasury market. It is possible that the heightened demand for safe assets will cause Treasury bill yields and GC repo rates for Treasury collateral to turn negative over year-end. Indeed, the implied forward rate for bills for the week spanning year-end is already at



around minus 15 basis points, as shown in the bottom right panel. This is not an unusual degree of softness relative to other short-term interest rates; however, it is notable because, given the low absolute level of rates, this softness pushes the yield into negative territory.

This consideration raises a policy question of whether the Federal Reserve should use its balance sheet to offset such a development. We could do so by supplying more Treasury collateral to the market, either by a special TSLF operation over year-end or through reverse repurchase agreements. As for now, we are inclined to think that mildly negative Treasury yields are not problematic and would not require such a policy response. However, any signs that the rates are going more deeply negative and are causing disruption to market functioning could change that assessment. Thank you.

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

MR. FISHER. Brian, there has been an enormous amount of chatter and some articles written about the carry trade, and I wonder from a Desk perspective, being more market-oriented, and less from a theoretical standpoint, if you could give us your views on the arguments put forward by Roubini and others. Is this a problem, or is it a non-issue?

MR. SACK. There is a lot of talk about the carry trade, and I think when we talk about the carry trade we need to be careful to distinguish whether we are talking about a fundamental story that we would expect to take place or whether we are talking about something beyond that. The fundamental story would be that low financing rates in the United States should make it attractive to borrow and to go long other assets. And you should evaluate the return on those other assets relative to the return that investors could get on a risk-free asset, which is quite low. To the degree that the carry trade reflects that activity, I think it is perfectly reasonable and desirable. The question is, “Do we see so much activity that it goes beyond that, where the low financing rates are causing asset prices to go up too far because there is too much leverage and too much risk-taking?”

That is what I tried to focus on, in the context of U.S. assets, in exhibit 1. I think the only way to answer that question is to turn to the models and try to make an assessment of fair value. And for U.S. assets, we do not see a problem at this point because, as I said, we think they are fairly priced. I do think there are greater concerns regarding assets outside the United States, in particular emerging market assets. We don't look at those in detail, so I don't have as detailed an answer, but we have certainly heard quite a bit of concern being expressed about the prices on those assets being pushed up too far. So I think it is a concern, or it is a risk to be aware of, but I would think at this point it is directed toward emerging-market asset prices.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Any other questions? President Bullard.

MR. BULLARD. Yes. I'm looking at exhibits 17 and 18, which show the effects of large-scale asset purchases. And we have some pretty substantial effects here, which I can see and I agree with. But there are no measures of uncertainty around these. So I wonder if you could comment on how much confidence you would put in these estimates because they are probably very difficult to estimate. Now, the one on the left maybe looks as though some statistical significance is there.

MR. SACK. The short answer is that there is a lot of uncertainty about calibrating the effects. Absolutely. And the uncertainty in these two panels comes from different sources in some way. In the one on the left, like any model of fair value, the results have only a certain degree of statistical significance and can depend on the type of model that you write down. This model actually includes a supply variable directly, which it does find is statistically significant, and then we can use that to back out, in the context of the model, what it thinks the effects of the

LSAPs would be. The point estimate is something around 50 basis points, but it has a confidence interval that certainly spans easily from 20 to 80 or so.

The uncertainty on the right is a bit different, but equally important. The advantage of the event-study exercise is to zoom in on the LSAP events, so that we can be sure we are isolating the effect of the LSAPs. Of course, the downside of event-studies is that they give you no perspective on whether those effects persist and what the dynamics are thereafter. If you have an efficient-markets hypothesis, you might expect them to persist. I mean, it would be odd, in the context of efficient markets, if they predictably reversed in a timely way. We have some confidence that some of this effect persists, but I guess I wouldn't want to hang my hat on saying absolutely that this entire effect persists. So that is the source of uncertainty there. I take this evidence together to suggest that the LSAPs have worked. There has been some effect, but it is very difficult to quantify, no doubt.

CHAIRMAN BERNANKE. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Brian, in panel 19, you have plotted a possible path for the tapering down of the MBS purchases. If that is the path that you indeed follow, do you have some, even intuitive, sense of a point along that path at which you would begin to feel relatively more confident that you weren't going to see a significant effect on the markets from the tapering off of our purchases? I know that is tied up with the degree to which this is a flow effect.

MR. SACK. I think it is useful, regarding that question, just to relate what we hear from the market participants who come through our door and talk to us about this. Almost everyone thinks that MBS spreads are too low and are too low because of Fed purchases. There is disagreement about the size of those effects, but if you ask me to give you a range, I would say

that the range we hear is 25 to 100 basis points. My own view is that it is going to be much closer to the lower end of that, but certainly that is hard to pin down.

The logical next question is to ask, “Well, if you think that, why aren’t you shorting this and trying to take advantage of that?” And the answer almost as uniformly is, “We are going to, but we are just afraid to get into it yet, while the Fed is still so sizable.” So it is a very strange situation from a market perspective, especially from those of us who think about the efficiency of markets. Everyone is kind of waiting for this adjustment to take place and kind of waiting to jump in to try to take advantage of it. There is just a sense that it is too early.

My guess is that we are not talking about waiting until the end. There will be some arbitrage that, if there is a flow effect, is going to bring it forward. It would be a wild guess, but I would say that it wouldn’t be surprising to see something start to develop within the next two months, as we get closer to that exit. I think when people assess their risks, we haven’t heard anyone come and express the view that mortgages are cheap and that the spread is likely to go down. So that kind of leaves you with this one-sided opportunity that I think can’t persist for that long.

MR. TARULLO. Okay. Thanks.

CHAIRMAN BERNANKE. Other questions? Okay. Seeing none, we have three staff presentations on our liquidity programs and reserve-management tools, and I will turn to Bill Nelson to lead off.

MR. NELSON. Thank you, Mr. Chairman. I will briefly update the Committee on the TAF, primary credit, and the TALF. The staff is not seeking views at this time, but we would be happy to answer the Committee’s questions.

Credit extended under the term auction facility peaked near \$500 billion in March and has declined steadily since. Over the intermeeting period, TAF credit declined further to just under \$140 billion. Of that amount, about three-quarters is extended to branches and agencies of foreign banks. On September 24, the Board announced a

phase-down schedule for TAF amounts through January, and it also indicated that auctions of credit with maturities longer than 28 days would be phased out. In yesterday's auction of 70-day TAF funds, the amount auctioned was cut to \$25 billion, half the October amount. Only \$13.2 billion was requested even though \$43 billion is maturing. By January 11, 2010, only \$75 billion of 28-day credit will be offered.

We do not expect to ask the Board to make any decision about the TAF in the near term. Later this year or perhaps early next year, the Board will be asked to consider whether to further reduce the amount provided in TAF auctions, perhaps to zero. Reducing TAF auction amounts to zero in the intermediate term would be consistent with the ongoing gradual normalization of Federal Reserve liquidity operations, would ensure that no bank currently using the facility remained reliant on TAF funding, and would help reduce reserve balances during a period in which the FOMC might be tightening policy. If auction amounts were reduced to zero, the staff would work to preserve operational readiness by periodically conducting simulated auctions. I'd emphasize that reducing TAF credit to zero for a period would not imply that TAF credit would necessarily be zero in the future steady state. The options that policymakers might consider for a permanent TAF currently seem likely to include using TAF only as a tool for contingencies with no credit outstanding in normal times or conducting monthly auctions of relatively small amounts of credit to preserve readiness. Whether to have a permanent TAF and, if so, in what form is an issue we expect to raise once the financial crisis has fully subsided.

Turning to primary credit, prior to the financial crisis, the primary credit rate had been consistently set at a level 100 basis points over the target federal funds rate, and the maximum available term of primary credit was overnight except for the smallest institutions, which could borrow for up to one month. Over the past two years, the Federal Reserve narrowed the primary credit rate spread to 25 basis points and lengthened the maximum maturity to 90 days. The total amount of primary credit outstanding peaked near \$115 billion in October 2008. It has since fallen to \$23 billion, of which more than 90 percent is to branches and agencies of foreign banks and two-thirds is extended to a single foreign bank that is prohibited from term borrowing and is rolling overnight credit. About \$4.5 billion in primary credit had an initial maturity greater than 28 days, and nearly all of that is to another foreign bank.

Later this week, the Board will be asked to consider whether the maximum maturity on primary credit loans should be reduced to 28 days in January 2010. In this way, the terms on primary credit would not be tightened until after year-end, but then the maximum maturity of primary credit would be aligned with the maturity of TAF loans. The Board and Reserve Banks could evaluate early next year the appropriate time to adjust the spread of the primary credit rate over the target rate and possibly to reduce further the maximum maturity on primary credit loans. If Reserve Bank Presidents have comments on the proposal to reduce the maximum maturity of primary credit loans to 28 days, please convey them directly to the Board staff or to a member of the Board in the next few days.

Lastly, I will provide a brief update on the TALF. On October 5, the Board announced two changes to the procedures for evaluating asset-backed securities pledged to the TALF. First, the Board requested public comment on a rule that would establish criteria for determining the credit rating agencies whose ratings on ABS would be accepted at the facility. The proposed criteria will most likely result in ratings from one additional agency being accepted starting with the January subscription. Second, starting with the November subscription, which takes place today, the New York Fed is conducting a formal risk assessment of all ABS pledged to the facility. The new risk-assessment process has gone smoothly, and eight ABS with a total value of about \$6 billion will be issued in conjunction with the November subscription.

In recent months, spreads on most triple-A auto and credit card ABS have fallen well below the 100 basis point TALF spread, and ABS are increasingly being funded by non-TALF sources. Whereas in May through August, TALF lending equaled about two-thirds of ABS issuance, in September it fell to one-third and in October to one-quarter. The proportion appears likely to fall further in November, with less than \$1 billion in TALF loans for ABS expected today. Investors have now repaid over 20 percent of TALF loans backed by ABS, contributing to a 10 percent decline in outstanding TALF credit over the intermeeting period.

Conditions in the market for commercial mortgage-backed securities are more mixed. Spreads on CMBS in secondary markets have narrowed significantly but are still somewhat elevated, and TALF lending to finance purchases of legacy CMBS continues each month at fairly low levels. The new-issue CMBS market remains closed, but it now appears likely that a security, which will be eligible for TALF financing, will be brought to market later this month. Nathan will now continue the staff presentation.

MR. SHEETS. With the Federal Reserve's temporary liquidity swap lines expected to expire on February 1, the staff has assessed the case for putting in place a set of standing swap lines. Based on this examination, and as discussed in our background memo, we recommend that the Committee establish standing dollar-liquidity and foreign-currency-liquidity swap lines with the European Central Bank, the Bank of Japan, the Bank of England, and the Swiss National Bank. Standing dollar-liquidity lines would allow these central banks to access dollars, while foreign-currency lines would give the Federal Reserve the capacity to provide euros, yen, sterling, and Swiss francs to U.S. institutions. These lines would be precautionary in nature and would be designed to serve as a backstop during times of stress. We would expect that during normal times the lines would not be used.

We propose that the limits on the new dollar lines be much smaller than those for the temporary lines—\$30 billion each for the ECB and the BOJ and \$15 billion each for the BOE and SNB. This significant reduction in the size of the swap lines and in the number of counterparties (from fourteen central banks to four) would seem to provide a reasonable balance between the broad thrust of the Committee's exit

strategies and the potential utility of these lines in periods of stress. For the standing foreign-currency lines, we propose that the sizes be comparable to those for the dollar lines, which would also represent a significant downsizing.

As envisioned, the lines would include sufficient governance features to ensure that any use of swap line resources was consistent with the objectives and intentions of the FOMC. For example, the Federal Reserve could deny drawings to fund intervention in foreign exchange markets. Establishment of the swap lines would require an initial vote of the FOMC, with each line requiring re-authorization by the FOMC on an annual basis. Initial disbursements under the lines could occur either under the supervision of the Foreign Currency Subcommittee or require an additional vote of the full Committee.

We see the case for a small set of standing lines as quite convincing. First, through the rigors of the crisis, the swap lines have proven useful in combating financial stresses. Maintaining a small set of standing swap lines is the best way to ensure that the lines are fully operational when they are needed. The routine maintenance of standing facilities requires that technical expertise and operational apparatus—both at the Federal Reserve and at foreign central banks—be ready to activate at short notice. In addition, coordinating policy decisions with foreign central banks has the potential to be complicated and time consuming, so it's preferable to have as many as possible of these decisions negotiated in advance. Thus we see the establishment of standing lines as being superior to just having documentation "on the shelf." Second, even if the lines are never activated, they should help foster confidence in the robustness of the international financial system and thus contribute positively to market functioning. Third, the swap lines have been a powerful symbol of central bank cooperation. The decision to create standing lines would be seen as a signal that central banks intend to continue to work closely together. Fourth, the crisis has dramatized the remarkable extent to which financial markets have become globally integrated. The dollar swap lines expand the Federal Reserve's capacity to address funding pressures abroad and thus help to prevent those pressures from spilling over to domestic markets. Finally, the swap lines foster an expectation that home central banks will be called on to make judgments about the financial health of their domestic institutions during times of stress. This should enhance central banks' incentives to keep careful tabs on the activities of their large global institutions.

The rationale for establishing dollar swap lines with the ECB, the Bank of Japan, the Bank of England, and the Swiss National Bank is compelling, given the large dollar funding markets and globally active financial institutions in their economies. And while we cannot perfectly foresee where or when U.S. institutions might face foreign-currency funding pressures, extending the Federal Reserve's capacity to act as a lender of last resort in euros, yen, sterling, and Swiss francs strikes us as prudent insurance against a range of potential adverse scenarios.

The decision to establish standing swap lines with only these four central banks will no doubt disappoint some of our other existing central bank counterparties. But

our recent experience indicates that maintaining a larger network of swap lines exposes the Federal Reserve to recurring “boundary problems.” Over the past year, many foreign central banks have petitioned the Federal Reserve to establish temporary swap lines with them. Given that we value our relationships with these central banks, turning down such requests has at times put us in a difficult position. Our proposal sets a very high bar for the establishment of standing swap lines, which should minimize such difficulties in the future.

We propose that these lines be structured broadly—as the temporary lines have been—with short-maturity draws and safeguards to ensure that the credit risk to the Federal Reserve is nil. In addition, the pricing structure for the swap lines would be negotiated with an eye toward mitigating moral hazard by providing funds to institutions at a rate that is attractive during times of stress but not attractive during normal times. Notably, the pricing of the temporary dollar lines appears to have satisfied this objective: Total outstandings under these lines surged to over \$580 billion in December 2008 as the crisis intensified but have since dropped to less than \$35 billion as conditions have improved. We expect that the high bar for central bank counterparties and the smaller sizes of the lines will also limit the extent of moral hazard. Of course, if stresses emerge, additional swap lines could be put in place and the size of the lines could be scaled up, but there is no guarantee that the Federal Reserve and other central banks would actually choose to do so in any particular case.

The staff proposes that the standing lines become effective on the day that the temporary lines expire, thus providing a seamless transition between the two types of lines. Given the continued healing in funding markets, our working assumption is that the temporary swap lines will expire on February 1 as scheduled.

If the Committee supports moving forward with standing swap lines, the staff would immediately begin to negotiate the details of these arrangements with the foreign central banks. The staff would then ask the Committee to vote on a formal resolution at either the December or the January meeting, depending on the pace of those negotiations and other developments. We anticipate that the creation of the standing swap lines would be publicly announced shortly following the meeting in which the resolution was approved. We would, of course, keep the Committee apprised of developments influencing this timetable as they evolve.

Finally, I turn to a brief discussion of our standing swap lines under the North American Framework Agreement (NAFA). These lines are relatively small, sized at \$3 billion for Mexico and \$2 billion for Canada. The staff sees two broad approaches for dealing with these lines. The first is simply to leave them in place in their current form. Given their relatively small size, these lines are largely vestigial, so the benefits and costs of maintaining them “as is” are both minimal.

Another option would be to modernize these lines—changing their structure and legal documentation to match more closely those of our other standing lines. Notably, the NAFA lines were established with the explicit purpose of promoting



orderly conditions in foreign exchange markets, and they have a relatively rigid pricing structure. We would suggest refocusing the lines more directly on countering dollar funding pressures. This could be done by making their pricing more flexible, consistent with the broad principles discussed above, and by increasing the sizes of the lines to, say, \$8 billion or \$10 billion.

The following points argue for modernization: First, the extent of North American integration provides a special justification for these lines and a rationale for treating Canada and Mexico differently from other countries. Second, our sense is that officials in these countries would welcome this approach, and not enhancing the lines might strain our relationships with them. Third, it seems more orderly and transparent to have all our lines—both with the four foreign central banks and with our NAFTA counterparties—structured in a broadly similar way. Fourth, Mexico already has an arrangement under the IMF’s flexible credit lines, so the swap line would not be substituting for a relationship with the Fund.

However, we also note some reservations. First, financial institutions in Canada and Mexico are not globally active in the same sense as institutions in the economies of our other four counterparties. Second, seeing that Mexico has a swap line, other emerging market economies might request lines as well. Our substantial integration with Mexico should provide persuasive responses to these requests, but it might be better not to open this door at all. Third, the quality of Mexico’s economic and financial policies and the stability of its underlying institutions are not yet comparable to those of our four other counterparties or to Canada’s. On balance, the staff leans toward a recommendation to modernize the NAFTA swap lines, but this is admittedly a close call. We envision that any enhancements to the NAFTA lines would be implemented on the same timetable as that for the other standing swap lines. Chris Burke will now continue our presentation.

MR. BURKE. Thank you, Nathan. Jim Clouse and I will now update the Committee on staff work on reserve collateral accounts, reserve repurchase agreements, and term deposits. I will start with reserve collateral accounts.

Under a reserve collateral account, or RCA, a pair of institutions—a purchaser of funds, generally a depository institution, and a seller of funds, typically a GSE—would set up a special-purpose account at the Federal Reserve. The seller would have control of the movement of funds into and out of the account. The buyer would be required to hold the funds in the account, and those funds would both collateralize the transaction and earn interest on excess reserves. The RCA would eliminate the credit risk that would have been present in a fed funds sale transaction, allowing lenders such as GSEs to deal with a greater number of counterparties and theoretically earn a higher interest rate. With line limits becoming less of a constraint on GSEs’ funds sales, the linkage between the interest rate on reserves and shorter-term rates should be tightened.

Since the last FOMC meeting, we have discussed RCAs in detail with two GSEs, several depository institutions, and the FDIC. Extrapolating from the feedback from

Freddie Mac and the Federal Home Loan Bank of San Francisco, there may be broad interest from GSEs in lending funds using these accounts. The ability to mitigate counterparty risk and engage a wider range of counterparties to attain higher interest rates is understandably attractive to them. On the other hand, the feedback from the depository institutions was mixed: Some were interested in creating RCAs, some were indifferent, and some were not in favor of the accounts. Based on their collective comments, the staff believes that it is possible that some banks would seek to purchase funds using these accounts, primarily those banks that currently have higher-than-average equity-to-asset ratios and that do not now borrow from the GSEs. The estimated range of interest rates that would likely be negotiated for sales into RCAs varied from a high of 5 basis points below the interest rate on excess reserves to a low of 18 basis points below the IOER rate, though one large money center bank expressed the view that it would not participate for a spread of less than 50 basis points.

One significant outstanding issue with RCAs is how the FDIC would treat funds in an RCA in the event of a borrower's insolvency. In order for RCAs to be viable, sellers require clear guidance about the disposition of funds in an RCA in this situation. Staff members at the FDIC understand that point but have stated that further review is necessary. We expect to hear back from the FDIC this week.

At this point, while it is likely that RCAs could provide some benefits, the effectiveness of this instrument in tightening our control of short-term interest rates is difficult to forecast. Moreover, fully developing this instrument would divert staff members from critical work on term deposits and reverse repos. Because the FOMC has placed a strong emphasis on the development of those two tools, the staff recommends that efforts on RCAs be put on hold until the other tools are closer to fruition.

Turning to reverse repos, given the successful testing of triparty reverse repos with the primary dealers and clearing banks that has taken place over recent weeks, the Desk now has the capability to settle reverse repurchase agreements in the triparty system with primary dealers using SOMA Treasury and agency debt securities as collateral. That said, the Desk recommends that this tool be used in a series of small, real-value operations to have full confidence that all operational details have been addressed before reverse repos are deployed in size. The reason is that the tests run to date, while effective, do not allow for complete end-to-end testing. One possibility would be for the Desk to conduct a \$360 million operation the week of November 16, and a series of operations the week of November 30 that would not exceed \$1.4 billion in aggregate at any one time. It would be very important to communicate to market participants that these small-scale operations are merely an aspect of the ongoing testing and do not signal that a firming of monetary policy is imminent. Such communication could come from the Desk rather than the FOMC to sharpen this distinction. In particular, the Desk could announce the small-scale operations in the form of an operating statement, similar to the one issued on October 19.

The work just described applies only to reverse repos with primary dealers using Treasury and agency debt securities as collateral. Work continues on establishing the triparty reverse repo capability using agency MBS securities, as that has several complicating dimensions to it. We are still some weeks away from finalizing a plan with the clearing banks, our MBS custodian, and our investment manager, and it may then take some months to implement the plan. A second set of real-value tests may prove useful in early 2010, when the capability to reverse out agency MBS securities is expected to become available.

A broader issue regarding reverse repurchase agreements is determining the appropriate set of counterparties for the Desk. The primary dealers tend to be net borrowers of funds rather than net providers, which makes them unnatural counterparties for reverse repos. Moreover, there is currently no means for dealers to borrow collateral from the Fed and then reverse out that collateral to cash providers without grossing up their balance sheets and affecting their leverage ratios. As a consequence, the current capacity of the primary dealer community to enter into reverse repos with the Fed is limited. Based on a Desk survey of all the primary dealers and a survey conducted by the Treasury Market Practices Group (TMPG), system capacity appears to be in the range of \$100 billion to \$250 billion.

The staff continues to explore options to expand reverse repo capacity, either by enabling the dealers to participate to a greater extent or by expanding our counterparties. Dealer capacity might be expanded in a number of ways, including the use of a netting facility such as the Fixed Income Clearing Corporation's general collateral finance repo facility, which would allow the dealers to net their reverse repos with the Fed with their matching repos with the cash investors and thus keep these transactions off their balance sheets. It is too soon to tell if any of these approaches will bear fruit. In terms of providing regulatory relief for balance sheet concerns, the news is not encouraging: Dealers have identified a host of constraints, meaning that there is no single solution. For example, seven dealers have bank holding company tier-1 leverage ratio concerns; nine dealers have home-country constraints (including France, Switzerland, the United Kingdom, Canada, and Japan); and most dealers noted concerns regarding how credit rating agencies and market analysts would perceive an increase in balance sheet assets and leverage. Although solutions to these constraints may exist, many agencies, both foreign and domestic, would have to coordinate responses. As a result, this avenue does not appear to offer much hope of relief in the short term.

While we continue to pursue primary dealer capacity enhancements, we have also begun to explore issues surrounding expanding reverse repo counterparties beyond the primary dealers. We have performed an initial survey of the major cash providers, the largest of which include the money market mutual funds, securities lenders and custodians, banks, government-sponsored entities, and foreign central banks. Several of these types of firms have characteristics that make them appealing counterparties. The main issue, however, may be related to the number of Desk counterparties and the logistics of putting a system in place in a timely manner.

For practical reasons, the Desk prefers to set up a system in which it interacts with a limited set of large firms. This would allow us to expand capacity significantly and relatively quickly. For example, based on our very preliminary exploration, we can identify two dozen firms spanning the categories listed above that currently lend more than \$1 trillion in funds on a short-term basis, with a sizable portion of that taking place in repo markets. It would be feasible to set up fairly quickly the systems and arrangements needed to transact with those firms, giving us all the capacity we need.

If the Desk must instead provide an opportunity for small firms to participate in these operations, the logistics of counterparty vetting and trading would likely become overwhelming, as the Federal Reserve has neither the systems nor the manpower to reach out to hundreds or thousands of potential cash investors. Thus, before continuing work on the subject, the Desk would like to solicit guidance from the Committee on the approach to expanding counterparties. With such guidance, we will be able to continue to explore potential counterparties with a greater degree of specificity. I'll now turn it over to Jim to discuss term deposits.

MR. CLOUSE. Thanks Chris. I will be discussing progress on the term deposit facility, or TDF, under which the Federal Reserve would have the capability to offer term deposits to depository institutions as a means of reducing the quantity of reserves in the banking system. Work on the TDF has been proceeding along three important dimensions—further developing systems and preparing for implementation; drafting key documents, including a *Federal Register* notice and a legal agreement for term deposits; and evaluating alternative designs for the TDF. I'll briefly summarize progress in each of these three areas in turn and conclude with a discussion of next steps.

The implementation workgroup—which includes Reserve Bank representatives from various System communities including legal, reserves, accounting, credit-risk, and customer support—has been overseeing the steps necessary to position the System to implement the TDF in the first quarter of next year. Last weekend, the automation development team—after months of hard work—deployed a web-based application that allows depositories to submit bids or subscription orders for term deposits via a secure Internet connection. The application supports both posted rate offerings and auction offerings. In coming months, the implementation team will be coordinating work across the System on the remaining steps necessary to implement a term deposit facility, such as formulating procedures for issuing electronic credentials to access the TDF and developing a communications plan.

The staff has also made substantial progress in developing two key documents that will be necessary before a term deposit facility can be implemented. A system legal group has produced a draft agreement for term deposits that would be signed by participating institutions. In addition, the staff has developed a draft *Federal Register* notice that provides background on the proposed TDF and seeks comment from the

public on a number of key design features. The *Federal Register* notice could be published this month if desired.

The design workgroup has developed some basic structures for a term deposit facility. The core design issues involve the type of deposit to be offered—fixed rate versus floating rate—and the mechanism by which deposits would be offered—through an auction or simply by posting a rate or rates. Beyond these key design parameters, there are a number of related technical questions, such as the appropriate maturities of term of deposits; whether to allow an early withdrawal option and, if so, at what penalty; and whether deposits can be pledged as collateral at the discount window. At present, the staff's sense is that term deposits would have relatively short maturities, likely ranging between two weeks and three months. Our current thinking is that early withdrawal would not be allowed, given that the objective of a TDF is to drain reserves. On the other hand, it seems appropriate that banks should be able to pledge term deposits as collateral at the window, especially if early withdrawal is not allowed, and the staff is working to ensure that such pledging can be done in an automated fashion. The proposed *Federal Register* notice would seek public comment on all of these basic design questions.

The staff anticipates that it will propose going out for public comment on the term deposit facility with a 30-day comment period. The results from the public comments would then inform decisions about the final structure for a term deposit facility. On a parallel track, the implementation group will be coordinating work with Reserve Banks and various System groups to be in position to implement any of several potentially desirable structures for the TDF in the first quarter of next year.

CHAIRMAN BERNANKE. Thank you. We are open for questions from the Committee. Please hold your comments and input just for a few more minutes, and we will have a chance for that as well. But any questions for the staff? President Lacker.

MR. LACKER. I was going to ask Mr. Sheets about the rough magnitude of the dollar reserves held by the four central banks that you are proposing we establish swap lines with.

MR. SHEETS. We don't have a precise number, given some reporting issues for the euro system, which would include all of the NCBs plus the ECB, but those dollar reserves are somewhere on the order of about \$150 billion to \$160 billion. For the BOJ, it's a bit over \$800 billion. They were very, very substantial holders of dollar reserves. For the Bank of

England, it's roughly on the order of \$15 billion, and for the Swiss National Bank it's around \$23 billion.

MR. LACKER. Okay. Is a lot of that held with CBIAS in New York, or do they have their own arrangements for buying assets?

MR. SHEETS. I'm not quite sure.

MS. MOSSER. Most central banks have accounts with us. Very few central banks hold all of their reserves—for very few central banks, we are the custodian for all of their reserves. They almost all have additional custody relationships in addition to CBIAS.

MR. LACKER. So, operationally, how would a foreign central bank selling dollar reserves in order to lend dollars to one of their banks compare with the operational requirements of obtaining dollars through one of these swap lines and lending them on? For operational convenience, how would those two compare?

MR. SHEETS. It seems to me that the major difference is that, in the one case, they would have to sell off their holdings of government securities, which if you are thinking that this might occur during a period of stress could be unsettling to the government securities market. What these swap lines do is allow these foreign central banks to have access to dollar liquidity without actually asking them to liquefy their reserves.

MR. LACKER. And these are dollar reserves. So if they are selling off government assets, these are probably Treasuries?

MR. SHEETS. These are probably Treasuries. That's what I was referring to. It may be that during a period of stress you don't want them to be selling off their Treasuries. That could be disruptive to the market.

MR. LACKER. Don't Treasury security prices usually go up during times of stress?

MR. SHEETS. That has been our experience over the last crisis, absolutely. But do you want to bet that in every state of nature that's the way it's going to be? You know, there are risks, and we don't know which way foreign preferences will go toward Treasuries at some future time.

MR. LACKER. We heard earlier that a huge amount of the primary credit facility borrowers are foreign banks. Does the borrowing through these swap lines occur by banks that don't have access to our primary credit facility?

MR. SHEETS. My understanding is that it's some of both.

MR. LACKER. So there are some institutions that could borrow from us directly, and they borrow either instead or also through—

MR. SHEETS. Through the swap lines. Given the pricing structure of the swap lines, getting funds through the swap lines has been relatively expensive. So if they have had a choice, they haven't gone to the swap lines.

MR. LACKER. So one of these banks that is borrowing directly from us could lend it on to one of these others banks, couldn't they?

MR. SHEETS. Through the interbank market?

MR. LACKER. Okay.

MR. SHEETS. I would assume so.

MS. MOSSER. I don't believe that, certainly during the crisis, that was actually what happened in practice. What I think is particularly true of European institutions is that they were borrowing in the United States and then moving the cash to their homes. The U.S. subsidiary was sending it basically to the parent, and they were not lending it on to other institutions in Europe. They were using it in their own parent institutions.

MR. LACKER. I see. One final question. When you refer to funding pressures, you are not talking about the overall supply and demand of reserves. You are talking about individual institutions that have to pay up in the market?

MR. SHEETS. That's right. Their capacity to be able to go into the market and access reserves. Obviously, there is a price component to that. But as we saw through the last crisis, as the interbank market came under stress, the volume of transactions also dried up. So I think that, in addition to a price component, there was a rationing going on in the market as well.

MR. LACKER. But I guess my point was that this doesn't do anything for the overall supply of reserves in the market that discount window lending or open market operations wouldn't do. It just facilitates channeling those reserves to particular institutions that would otherwise face high counterparty credit-risk premiums.

MR. SHEETS. Right. And in particular, maybe some institutions that may not have access to our domestic facilities. Nevertheless, as you recall early on in the crisis, these guys were coming into the money markets in New York and creating volatility through their demands for dollar funding. In particular, early in the day they were demanding huge quantities of liquidity and driving up the rate, and then the rate would crash at the end of the day. But it was making Vice Chairman Dudley's job extremely difficult. So there are important spillover effects for us, and we point to this as one of the major reasons that it is important to maintain the capacity to provide dollar liquidity to foreign markets.

MR. SACK. Another dimension, from the perspective of policymakers, is that, even though some firms can substitute between getting dollar funding here through our facilities and getting it abroad, by providing a dollar swap and allowing the foreign central bank to provide the dollar liquidity, they rather than the Fed are bearing the credit risk of the facility.



CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. That is what I was going to say.

CHAIRMAN BERNANKE. All right.

MS. MOSSER. One final comment—I also think about the realities of collateral. The fact is that large global financial institutions have collateral at almost all the large central banks. Moving that collateral on short notice, particularly in the midst of a crisis, from one central bank to another in order to make sure that you have collateral and you can borrow in the right currency is very time-consuming. It does not happen quickly. There is work afoot to make that movement of collateral around the world smoother, but it isn't there yet. And the swap arrangements, like the comparison of moving collateral around, basically put the counterparty risk, as Brian noted, frankly, where it belongs, and also allowed the collateral to be used at the central bank that is actually bearing the counterparty risk and not moved around and needing to be reevaluated by another central bank.

MR. LACKER. Just one more little follow-up: Do we know whether the difference between rates paid last fall in the early part of the day by foreign banks and rates paid after they ceased participating in the market, which were lower, reflected market segmentation across the day or higher credit-risk premiums if they were paid?

CHAIRMAN BERNANKE. Vice Chairman, do you want to answer that?

VICE CHAIRMAN DUDLEY. I think our feeling at the time, President Lacker, was that it was due to the fact that there was a structural dollar shortage in Europe. So there was a strong time-of-day effect. It wasn't just a counterparty-risk issue.

CHAIRMAN BERNANKE. President Lockhart, you were next.

MR. LOCKHART. This is not on this particular question, but to—is it Chris Burke? Did I hear that correctly?

MR. BURKE. Yes.

MR. LOCKHART. Help me with connecting the dots at a high level here. I took your overall discussion of the reverse repo market to be sort of discouraging on net—near term at least—that we have obstacles, various technical challenges that are building up, and that it is far from certain that this is going to be a large-capacity drainer of excess reserves. Then I look at the market's view of this question in exhibit 26, and it appears that they are ranking the reverse repos as the largest possible drainer of reserves. Are we building here to a disconnect between the reality of this tool and what the market thinks this tool can do and, therefore, a schism between public views of our ability to drain and what we can really accomplish?

MR. BURKE. I think it is a sense of timing. We have collateral. We have the ability to reverse out our Treasury and agency collateral today. Even without agency MBS, we could have a program of \$800 billion from a collateral perspective. The primary dealers, though, as noted, are limited to something maybe more in the \$200 billion range. But that does mean that today we have \$200 billion in capacity, and I think it's going to depend on the Committee's answer to the counterparty discussion. If we can deal with a small number of large firms, in very short order I think we can bring the capacity of this tool to at least match the level of collateral that we have to reverse out.

MR. LOCKHART. If we gave you an answer today, how long do you think it would take you to be in a position to do a large-scale program that approaches that collateral level of \$800 billion?

MR. BURKE. A very preliminary guess might be somewhere in the year-end time frame. We have the legal infrastructure in place. We have the authority to deal with the counterparties. So it's a question of logistically arranging—doing the vetting of the individual counterparties I think would be the biggest chunk of work there. We can already identify a super-large, well-known money fund as having a lot of cash to invest. They already deal with triparty. We can already work in triparty. We have the authority to deal with that firm, so it is getting in and doing the credit review, the regulatory review, and saying, "Okay. We are good to go." And then we can be investing or taking money from them in reverse repo transactions. So I think in fairly short order. If we have to cast a wider net for counterparties, though, it's going to be a very different ballgame.

MR. LOCKHART. This may not be a question for Chris, but is this coming to a question soon?

MR. BURKE. Well, I think the intent in my presentation, at least at my level, was to put the question on the table. I am not sure of the formalities.

CHAIRMAN BERNANKE. We will make a list of what input is desired, and then we will ask everyone. President Plosser.

MR. PLOSSER. I just had a follow-up to the answer that Nathan gave on the intraday volatility that you referred to in terms of reserves. To what degree was that also the creation of our own operating procedures—that we were going into the market only once a day and we were reluctant to be players on a continuous basis? Could we have solved some of that problem by our own operating procedures and being in the market more continuously?

VICE CHAIRMAN DUDLEY. Part of the problem is that we never have had knowledge of how much reserves we actually did need to add during the day because we don't have a real

sense of whether the banking system has the appropriate amount of reserves. So you could respond multiple times during the day but end up adding way too many reserves or adding—

MR. PLOSSER. Is that because we were targeting quantities rather than prices? Once again, could we have been closer had we been more frequent?

VICE CHAIRMAN DUDLEY. There was also an operational issue—late in the day, the market gets much thinner. So there is also a timing issue in that, the later you go in the day, the less—you know, the money market business is a morning business. But, yes, you could have conceivably tried to do more.

MR. PLOSSER. I was just reacting to your saying that was one of the major reasons we want to have this. In some ways, we could have done some things on our own to help mitigate some of that, I guess.

VICE CHAIRMAN DUDLEY. I think our feeling at the time was that we were not confident that multiple interventions during the day would have actually helped us hit the target better.

MR. LACKER. A two-hander?

CHAIRMAN BERNANKE. President Lacker?

MR. LACKER. These observations are from pre-IOER. The operation he is talking about is soaking up reserves late in the day, which is exactly what the interest rate on reserves has done. It is not clear that this would be a big problem.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. On the TALF, as we go through more auctions, more subscriptions, is there any incidence of refinancing previous TALF loans? And if so, how much and what does it tell us?

MR. NELSON. We do extend some TALF loans for seasoned ABS. I guess it's conceivable that those ABS had previously been borrowed against and then resold into the market or they were issued as TALF-eligible and not taken up in the first round. However, off the top of my head, I do not know the amount that is being extended against seasoned ABS.

MR. FISHER. Do you think it is significant? Can we find out?

MR. NELSON. Certainly. Yes, I'll get that to you.

MR. FISHER. It may just be that rates are increasingly attractive. I don't know, but I would be curious as to how much recycling is taking place.

CHAIRMAN BERNANKE. Vice Chair.

MR. KOHN. I thought the trend was that people were actually paying back the TALF loans.

MR. FISHER. No, that's true in the aggregate. So I'm just asking the question.

MR. KOHN. Rather than refinancing them, they're actually paying them back and doing better in the market than they can do at the Federal Reserve.

MR. FISHER. That's true in the aggregate.

MR. NELSON. They're not refinancing their loans, but they're paying them back. That collateral is freeing up and conceivably could come back into the facility, which is what I thought you were asking.

MR. FISHER. Right.

MR. NELSON. But the overall amount of lending is just dropping very rapidly. This month it's going to be between \$600 million and \$1 billion, I think. So there just is not a lot of scope for very much activity along those lines, given how quickly activity under the facility has quieted down.

MR. FISHER. Thanks.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. This is a question about swap lines. I like the memo, and I like the approach. The policy of discontinuing the swap lines with certain central banks—I'm not quite sure where that leaves us because it seems as though now that, when we get into another crisis, the presumption would be that we would reestablish those lines with those banks since we did so this time around. So I'm not quite sure how to place your description of what we are doing here in that context because I think that there would certainly be overwhelming pressure in another crisis of this magnitude to reestablish those swap lines. Then you would have the difficulty of having to, as you say, renegotiate and set up the details, as you did this time. So I'm wondering what you think about that as opposed to the idea that we are pulling back and we're maybe implicitly saying that we may not reestablish with, say, South Korea or other countries like that in the future. What's your thinking on that?

MR. SHEETS. A couple of thoughts. Your general point is well taken. On the first point in terms of the pulling back, the scaling, and so on and so forth, our view is that we need to have a certain small number of swap lines in order to have the operational capacity to understand how they work, to have thought through all of the legal issues, and also to have a good sense from the Committee and from other central banks as to what the appropriate policy objectives of these things are. But from that relatively small set, if conditions require, it's usually fairly easy to scale it out. So I'm not worried about—if we only have four and then the world blows up and we want to have fourteen again—whether it is going to be harder to go from four to fourteen. No. I would be worried about going from zero to four, however. Ten years from now, the folks in New York who did all the work may be onto other things or other positions, and just as was the case in this last

episode, we had to run around and pretty much figure these things out from scratch. I actually think that Trish has a few purple hearts that she earned in that process.

Now, the flip side of this is that we gave them a swap line once, and if things get bad, we're going to give them a swap line again. I think that is a very reasonable presumption if a crisis erupts in a year or two years. But if the next crisis is eight or ten years out, there is a lot of water under the bridge. The world looks a lot different, and it's not clear to me that there is the same presumption. Now, the Committee at that point may want to look at it and come to the conclusion that, yes, we want to give Korea another swap line, but I do not think there would be as strong a presumption as if they actually had a swap line with us.

So I do think there is some meaning in where we draw this set of counterparties. As I mentioned in my remarks—but it is an important point—it is also very helpful to us in managing our relationships with foreign central banks from here until the time of the next crisis. on Yes.

MR. NELSON. Could I add another piece of information for President Fisher? The repayment of TALF loans has been concentrated in the plain-vanilla, short-maturity ABS where secondary market spreads have come down the most: autos; credit cards; equipment ABS to a lesser extent. Because those spreads are now well below the TALF loan rate—and for example, in the current subscription that is going on today, there was no request at all for TALF loans against the auto ABS that were issued—it strikes me as pretty unlikely that a very large part of the TALF lending that's going on now is going to finance ABS that have already been paid back. Those would have appreciated in price, and their spreads would now be too narrow to be attractive to finance under the TALF.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Other questions? President Lacker.

MR. LACKER. Yes, about the liquidity swap lines that would enable us to lend foreign currency to our institutions and some other countries. My recollection is that those were motivated—I won't say "primarily," but largely—by one large institution. At the time it seemed—correct me if I'm wrong, if the reasoning goes in a different way—preferable to the long and arduous task of encouraging through supervisory means that the institution find other foreign currency liquidity sources on which it could rely and reduce the extent of maturity transformation that it conducted in foreign currencies. So I was wondering if progress has been made on supervisory efforts to encourage that institution to reduce its vulnerability to maturity transformation in other currencies.

MR. SHEETS. I don't have specific information about that institution. The motivation for this proposal, however, is much broader and more generic than a single institution. Our expectation is that these lines wouldn't be used anytime soon. We do not have a single institution in mind. But we do have a generic class of problems in mind in which you have a U.S. institution that is operating abroad that for some reason has either difficulty in mobilizing its collateral to use at the foreign central bank's window or a real possibility that the foreign central bank is unwilling to lend to an institution with legitimate collateral. We have had conversations with various central banks—one in particular—when they have said that, under certain circumstances, they wouldn't be willing to lend to our institutions. So these are very precautionary in nature, but I think that they respond to a real class of problems that it makes sense for us to take out some insurance against.

CHAIRMAN BERNANKE. Other questions? Trish.

MS. MOSSER. May I make one more comment to President Lacker? Although not mentioned specifically in the memo, it is probably worth remembering that the first time that liquidity swaps were used was on September 12 and September 13, 2001. So there are other



circumstances for having these kinds of facilities in place, and in the case of the reverse lines particularly, should there be some sort of catastrophic event in another large financial center where our ability to basically do broad distribution of foreign currency, not just to specific institutions, might be useful. We didn't really discuss that here, but we know that it has been done at least once the other way.

CHAIRMAN BERNANKE. Okay. The next item on the agenda is billed as an opportunity for interaction—[laughter] a way of saying that we don't necessarily want to have a go-round. We do have two subsequent go-rounds. Everyone will have a chance to give their views. However, this is an opportunity both to interact with each other and to give comments and feedback to the staff on the issues that they've raised. So that people know what you would like to hear, let me just go through that quickly. As I understand it, there are no formal actions proposed for today; is that right?

MR. SHEETS. That's right.

CHAIRMAN BERNANKE. Okay. But, Mr. Burke, you would like to hear some views on the counterparty issue. Anything else that you would like to hear from the Committee?

MR. BURKE. Actually we want to affirm, if we can, the plan to put RCAs on hold until we get the reverse repos and term deposits more fully squared away. We would like approval to do some small, real-value test operations of the reverse repos and, if we are going to do that, maybe the ability to issue another operating statement similar to the one on October 19.

CHAIRMAN BERNANKE. That would be, I think, implied.

MR. BURKE. But the last one, as you mentioned, is on counterparties, whether we can create a system by which we can select a small number of large firms to transact with or whether we need to cast a wide net and allow small firms to participate.

CHAIRMAN BERNANKE. Mr. Clouse. Anything from you?

MR. CLOUSE. The staff is proposing a *Federal Register* notice, potentially this month for design input on the term deposits. It would be helpful to hear whether that's a desirable thing or not.

CHAIRMAN BERNANKE. Bill, anything?

MR. NELSON. The only near-term decision that we're asking of the Board in the next few days is on the maximum maturity of the primary credit rate. But if the Presidents have views on that issue, if they could convey that directly to a staff member or to a Governor over the coming days outside this meeting, that would be best. The other issues are ones for coming months or early next year, and I suppose that views expressed on those as well would be valuable now. Those have to do with, in the intermediate term, the scaling-back of the TAF to possibly zero in the first half of next year and also the eventual adjustment to the return to normalization of the terms of primary credit. Again, both of those things are decisions that would be made next year.

CHAIRMAN BERNANKE. Okay, and, Nathan, you want comments on the swap proposal.

MR. SHEETS. Right. Particularly the counterparties, the size, and how to handle the North American swaps with Mexico and Canada.

MR. KOHN. Mr. Chairman, Scott is straining at his chair there.

MR. ALVAREZ. Yes. The matters that Bill Nelson just brought up and the matters that Jim Clouse brought up on the *Federal Register* are matters that will eventually come to the Board for its decision. So if the Presidents want to express some views that the Board should consider when the Board is formally presented with those matters, that could be helpful; but they are not matters for the Board to discuss in today's meeting.

CHAIRMAN BERNANKE. All right. There are too many items here. We are not going to have a quasi-decision process here. Okay? So we will poll the Committee—can we do that?—and

get feedback from everybody. If you haven't had time to think about these issues, we will get back to you after the meeting and get feedback on the relevant issues, and we won't take a decision until we hear. But I would still like to have an opportunity for people who would like to make arguments or comments on any of these issues to do so now. President Hoenig.

MR. HOENIG. Just a suggestion. It would be helpful to me, given the breadth of choices among us, if there was following this meeting a one-page summary of each list of questions, and then I'd feel much more comfortable responding to that after some thought than to try to give an answer at this point.

CHAIRMAN BERNANKE. Brian, would that be possible?

MR. MADIGAN. Yes.

CHAIRMAN BERNANKE. All right. Nevertheless, we could have any interaction, discussion, comments, or input anyone would like to have at this point on any of these issues. Anyone? Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. A couple of points— not on the Board matters, Scott. On Chris's points, I think the small number of large firms is consistent with the way we do primary dealers, but I do think it is important to have criteria that can be easily justified about why we are doing a small number of large firms. I mean, in this case we are borrowing money, right, rather than lending it?

MR. BURKE. Right.

MR. KOHN. Right. So it's not clear that the risk of the counterparty is the right criterion, but it could be the size that you can execute in and the speed with which you can execute. I think you just need to be very clear on the criteria so that it's easily defensible when people say, "Why aren't you doing it with every small person who wants to lend us money?"

I think putting the RCAs on hold is a good idea. They always seemed very complicated to me and potentially bifurcating the fed funds market, and I think that, if we can get it done without that change, we should. Maybe we need them, but I think putting them on hold is a good idea and concentrating on the reverse RPs and the term deposits is the right way to go. I would be fine with a small real-value test with the rate thing.

On the swaps, this is more difficult. I think the swaps were a very, very useful instrument in the recent crisis, and it wasn't just about particular institutions. It has come down to that, I think, as the crisis unwinds. It has come down to that both in our domestic facilities and in our international facilities. But at the height of the crisis, there was a generalized demand for dollar funding that the markets were unable to meet because there was segmentation. There was a lack of arbitrage. There was a hoarding of liquidity. And the swaps—particularly once they got to be open ended—were very, very important in both relieving pressure on the markets and building confidence.

I like the idea that the home country central bank is in charge of the lending for the most part. That's where the problems are going to be. That's where the fiscal issues are going to arise. So to the extent that the home country central bank can do the lending, that's a benefit. And I think the point implied by President Lacker about reserves is a good one, but the problem with relying on reserves is that there is a limited amount of reserves that any particular central bank has, and I know in talking to people from the ECB, a problem they had was mobilizing the reserves in the various national central banks.

So I think the idea of this swap facility was very, very useful. It's important that we have something that is ready to activate on short notice and that we keep the machinery oiled at least for a small number of central banks, the Big Four that Nathan talked about. And I guess in theory that standby lines will do that. There could be some sort of contingency facility that you also tested on a

periodic basis. In some sense I'm indifferent about how it is done, but I think it is important to have it there.

I am much more torn about the Mexican swap line, to tell the truth. I worry about emerging market swap lines. I worry that we'll have to get into the business of judging whether the underlying policies in that country are good. In this case, we had a generalized demand for dollars all over the world. So smearing the dollars all over the world was a good way of dealing with that. The next crisis could be more particular to an individual economy. President Hoenig and I were in Mexico about two weeks ago, and it was quite striking, I think, Tom, that the Mexicans as well as the visitors thought that it was a pretty troubled economy with lots of problems. I guess I'm worried that we'll get involved in something that is particular to Mexico rather than a general dollar liquidity shortage. I recognize that the Mexican economy, as well as the Canadian economy, is deeply integrated with ours—it is in our interest that it not be destabilized in some sense.

It would be important, as I think Nathan mentioned in his briefing, to come back to the FOMC before any of these swap lines are activated for the first time. I would not delegate it to the three of us on the subcommittee. I would want the FOMC to do it, and I think we need to be careful about how we specify the criteria under which the swap lines would be activated in the material that backs it up, that somehow we make it clear that, if there is a very specific problem keyed to the specific economy, other ways of dealing with it—through the IMF, the Administration, the Congress, if the United States is going to provide support in that case—are more appropriate than using the Federal Reserve, bypassing those other channels. I am still a little concerned about the Mexican part of this thing.

CHAIRMAN BERNANKE. Vice Chairman, you had a two-hander?

VICE CHAIRMAN DUDLEY. I had more than a two-hander.

CHAIRMAN BERNANKE. Oh, okay. One moment. I just wanted to say on the counterparties that there's not any particular reason that this can't be done in stages. I think it's important that we have an open process and criteria and so on, but given the exigencies of trying to get this up and running in a reasonable amount of time, why can't we just do the ones that meet certain criteria in terms of size and capacity and so on first, and then as we did with the TALF, for example, go on to a broader set of counterparties? I just raise that possibility. Okay. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you. On the counterparty issue, I guess the question I have would be, Will there really be much interest by smaller counterparties given that giving funds to us is not really different from giving funds to the U.S. Treasury in the T-bill market. It's not as though we have a very special thing here that's going to be particularly attractive to small investors. So it seems to me that we want to find out how much interest there is before we design a very complicated mechanism that might or might not be of interest to them. And I would reinforce the Chairman's view that there's no reason, if there is an interest, that you couldn't go to the large ones first and then broaden it out over time. I think it's very clear that you want to be able to have the capacity to go large—to President Lockhart's point earlier—and if you can't do a lot of money, then this is really a bit of an illusion in terms of its effectiveness.

Let me just go through the other ones very quickly. RCAs on hold, I agree with that. I think cash operations, real-value operations, make sense. We just have to be very clear that it's just a test. As far as Mexico is concerned, I share a lot of Governor Kohn's concerns about going from generalized market problems to country-specific problems. One way to get around that might be to require that Mexico continue to be rated investment-grade. I think they're triple-B plus. So if they were to drop below that, then you could argue that you're really morphing from something that's

more into a country-risk issue. Obviously the issue I think you are raising, Governor Kohn, is the issue of our getting involved in true credit risk with a sovereign entity, and that's something that I think we should be very uncomfortable about if we really think that is above a meaningful threshold. Other than that, I think the four counterparties—the ECB, the SNB, the Bank of Japan, and the Bank of England—make perfect sense to keep in practice, and I think the counterparty-risk issues there are pretty negligible.

CHAIRMAN BERNANKE. President Fisher, did you have a two-hander?

MR. FISHER. Well, on the subject of Mexico, I think it is a difficult subject when you include Canada in the equation. Clearly, Canada is a higher-grade economy and would have a higher investment grade. But, again, we think of them all as North America. I have no problem with the four. If we think through this NAFTA issue, there are delicate politics when you deal with Mexico because you are also dealing with Canada simultaneously. So I would just ask you to bear that in mind. I think Vice Chair Dudley's proposal may be a way to slice that, but the answer may be to leave it untouched, the \$3 billion and the \$2 billion. Right now we have \$3 billion to Mexico and \$2 billion to Canada. And I would just point that out.

Like Tom Hoenig, I would like to have time to think about the other questions. But I just wanted to point that out. It is a very delicate issue, not because I am a Texan but just because of the nature of the agreement that we forged with these two countries as trading partners. So maybe the answer there is to leave it alone. But you can't treat one without offending the other.

CHAIRMAN BERNANKE. You will have time to think about the issues. Governor Warsh.

MR. WARSH. Sure. Let me just add to what sounds like maybe a growing chorus on the currency swaps. I certainly favor the currency swaps. With the four central banks, in terms

of the size, it strikes me that it should be just big enough to be a useful, well-practiced engine on both sides. And frankly, I don't know whether it needs to be as big as in the proposal to accomplish that objective. If we found ourselves in a crisis, we could always amplify those to a greater extent. So in some ways I wonder whether the numbers that were proposed were, in an ambiguous world, large enough that it is certainly more than some kind of testing program but not large enough to make a huge difference in the context of a global financial panic. I don't have better numbers in mind, but I think the idea of being operational with those four makes sense.

With respect to the NAFA issue, I think it would probably make the most sense for us to let the temporary swaps extinguish on their own accord in February and put the new swaps in accord with the four, and then sometime later, after we are done hearing pleadings from the Singaporeans and the Koreans, then decide what we want to do in the context of this NAFA piece. But I wouldn't want to conflate that issue with the swap line because that in some ways begs the question, with the Koreans in particular, from whom we hear quite a bit.

With respect to the reverse repo issue and the small banks, I guess this is really a question for Chris Burke and for Bill Dudley and the team, which is, Would there be a large financial institution that would be willing to do the work on this for us? To see whether they would be responsible, for a fee, for aggregating the small institutions, verifying their interest in whether they, in aggregate, could be of some real use, given what we are trying to accomplish. Because if I think about the relative scarcity of our resources, it could potentially be a good piece of business for someone, and that someone might not be us.

CHAIRMAN BERNANKE. President Lacker.



MR. LACKER. Yes. On the swap lines, I have never been a real big fan of these. My affection rose slightly earlier in the year, but it was a transitory rise. [Laughter] I find my enthusiasm waning. Basically, I don't think they solve an economic problem worth solving. We have dollars out there, and maybe I am just really sanguine about the ability of the system to move dollars around. I guess at the end of the day that might be where we differ. It has the disadvantage of our having to police other central banks' use of the funds and not let them do foreign exchange with them and all. So, broadly speaking, I wouldn't favor it because I think we can maintain the operational capability without the authorization for these things. I think we can practice these things some way or another. I think we can manage to maintain our human capital.

On the foreign currency swaps, where we borrow a foreign currency in order to lend to one of our institutions, I think at this time horizon, nine months down the road, the vulnerability of any of these institutions, because of maturity transformation in a foreign currency, is entirely endogenous. It is entirely the choice of how they run their business, and I don't think there is any excuse at this horizon not to have pushed them out of the nest. I don't know the details of these institutions, but I think we ought to be working toward pushing them to run their business in a way that they are not so vulnerable to that.

As for the NAFA things, I think those are classic foreign exchange. It's a vestige of our classic foreign exchange currency swap things that we have always opposed. They are really fiscal policies—the same reasons that Vice Chairman Dudley articulated.

I am glad to hear that RCAs are on hold. I didn't think they were worth pursuing, and they seemed to benefit mainly the GSEs. As for the other things, I think a question we want to ask ourselves before this is, What sense of urgency do we really feel about reverse RPs and term

deposits? I was struck by that chart that Brian showed us and the new section at the end of the Bluebook that discusses a sequence of potential statements that we could use for the exit. I was struck that they placed primary reliance on these two mechanisms for draining reserves and held asset sales in abeyance. I would like to have the Committee really grapple with that. I don't know why we wouldn't go to asset sales first. If our balance sheet were as small as it would be, let's say, nine months from now without these deposits, would we issue a bunch of deposits to buy MBS? I don't think we would do that. I don't know why we would avoid selling MBS over the near term as we want to scale back reserve balances. I think we ought to grapple with just how much urgency these things require before we go public and get everybody all excited about them.

CHAIRMAN BERNANKE. Well, it seems as though more tools are better than fewer tools.

MR. LACKER. I understand the more tools part, but here we are at the threshold where—I mean, we have already tickled their fancy in the financial markets. And before we go too much farther down the road, I am not sure we shouldn't think of these as the backstop and asset sales as the primary tool.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. I just had one very quick interjection. One of the values of the whole foreign exchange swap program during the crisis was not the swaps per se or the dollars that were extended but was the international policy coordination signal that was sent. It is really hard to quantify the value of that, but I think it was actually very helpful to perceptions that central banks around the world recognize that this is a global crisis and responded collectively. I think that actually was helpful.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. I guess I will start with swaps because that seems to be popular. I share a lot of the concerns, actually, that Governor Kohn had. Don, I thought I understood you to say that your inclination, which I would agree with, is that it is fine to keep these things on the shelf, but you don't necessarily want to delegate it to the Foreign Currency Subcommittee to make the decisions each time that it really ought to come back.

MR. KOHN. For the first draw.

MR. PLOSSER. For the first draw. I found the argument in the memo a little strange about the transparency issue—that we wouldn't want to have it appear in the minutes that this was voted on. And I find that sort of anti-transparency, which I wasn't sure I found very compelling.

The other thing I think about the swaps is that, as President Lacker was asking, many of these banks do have lots of dollars at their disposal. Okay? Given that, I would think one proper way to think about this may be that we would like them to use their own dollars as their first line of defense, rather than coming to us. I don't know whether that really makes sense, whether we could price this in a way that would make that a sensible strategy, or whether it is even a desirable strategy in some sense, because if these things were operational on a continuous basis, would this be a kind of “no questions asked” way for them to request dollars? Or is it only reserved for crises? So I'd like to put their dollars on the line first, and I'm not exactly sure how we would do that. I don't mind having these things on the shelf and ready to go and operationalized. I am a little concerned about the usage and whose dollars come first. And I think putting the RCAs on hold is fine.

The other aspect is something that President Lacker returned to, which is the term deposits and the RPs. I kind of share his view in that I am not sure we have the tools in the right order, at least as suggested by some of the staff discussion. But one question I had about the term deposits was, if the term deposits are eligible for collateral at the discount window, a bank could have a term deposit and turn around and post it as collateral at the discount window and borrow, taking out short-term reserves again. It seems as though they would undo the term deposit by doing that. So what is the point of having the term deposit if they can turn around and undo it this way?

CHAIRMAN BERNANKE. The discount rate is higher than the term deposit rate.

MR. PLOSSER. So that interacts with how much that discount rate varies. But they would be willing to pay something to get that reversed. It almost makes these things tradable at a fixed price for short-term reserves. Right? And so how do we control, or would we control, that in terms of this conversion? It seems as though we are defeating part of the purpose by doing that.

MR. CLOUSE. Yes. I'm sorry. There are lots of complications, obviously. I think, to your point, if they were eligible for collateral, that would presume that the primary credit rate was substantially above the IOER rate, for example, so that there wouldn't be an incentive for them to use these particular classes of assets as collateral at the discount window to undo exactly the operation. And, of course, they have to worry not only about the spread, but also any nonpecuniary—

MR. PLOSSER. Well, suppose they did it today, posted the collateral at the discount window, and went to the TAF auction and borrowed 28-day money for reserves in the TAF auction at the minimum bid.

MR. CLOUSE. Of course, in doing so, they would be suffering a 25 basis point cost in that operation, so it wouldn't be an incentive.

MR. PLOSSER. Well, they are borrowing at less than the primary credit rate, right? That is what they would be doing today.

MR. BURKE. I think the context for these tools is that we are in an exit strategy with rising rates. The spreads are much larger than they are now when everything is compressed. The other side of that is, if we want banks to use the facility and be interested, our feeling was that you need to allow them either to break the trade if they needed funds or to be able to pledge it as collateral at the discount window if they needed funds.

MR. PLOSSER. Well, but at the end of the day, that kind of undoes the purpose of the term deposits to begin with. Right? I guess here is my point. I think this is maybe part of what President Lacker may be getting at—a lot of these tools interact with each other in how you would design them and how you structure them. So rather than doing them on a one-off basis, we need to think of them in the context of how we are going to manage the discount window going forward. Are we going to have term primary credit? Are we going to go back to overnight money? I think these things are interrelated. And to get a sense of how they will play out, we need to think of them collectively in how they interact with one another, rather than on a one-off basis. I guess that is really what I am thinking about.

CHAIRMAN BERNANKE. Yes. We will just have to make sure that all of the pricing works. So, for example, there could be a prepayment penalty or something to take out the deposits. Governor Duke.

MS. DUKE. Just a response to President Plosser. I think from the standpoint that the smaller banks would be the ones that would tend to use these term deposits the most, and they

would be unlikely to use them if there were no way to get out of them in an emergency situation. So they just need some way to reverse it. It wouldn't necessarily be a pricing piece—in other words, there is a penalty to do it. But as long as they know they could reverse, then they would be likely to use it.

MR. PLOSSER. I am just saying that is fine, but then that undoes the purpose that we have for the term deposit, which is to reduce reserves or hit our target.

MS. DUKE. Yes. I think the difference is the decisionmaking of an individual institution versus the aggregate, and so you have to set up something whereby the individual institution can make that choice.

CHAIRMAN BERNANKE. I'm sorry. Vice Chairman, did you have something?

VICE CHAIRMAN DUDLEY. Yes. What was interesting as we went through the crisis was that, for the foreign central banks, there was clearly a very high threshold against using their own dollar reserves, liquidating their Treasury securities or whatever, to fund their domestic banks. We know that because they didn't do it, and they told us that they didn't want to do it because they thought it would be very confusing to the market in terms of what they were up to. Was this some sort of foreign exchange intervention? Or was it a sign of distress particular to their country? We also know that there was a pretty high threshold because we actually charged them quite a bit for the foreign exchange swap lines relative to the fact that they are basically virtually a risk-free rate, yet they chose that rather than to liquidate their dollar reserves. So I think you have to recognize that there is something special about the dollar reserves holdings that they have that they don't want to mess with. There was a cost for them to engage in dollar reserves sales that seemed to be fairly significant as we went through the crisis.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I want just to explain how I understand something and ask the question whether I understand it correctly. It is really a comment in support of moving quickly, with a sense of urgency, counter to what President Lacker said, on the reverse repo counterparties and all of the other tools. I think we need to address any uncertainty about our ability to drain. As I understand it, if we are going to make a decision to tighten or even signal in our statement that we are moving in the direction of tightening through the rate mechanism, we need to be able to execute an operation to move the federal funds rate, and that is going to require the draining of lots and lots of reserves.

If we find that it is not feasible, realistically, to drain reserves in a time frame that is going to allow us to execute rate policy, then we are probably opting for an interest on reserves policy rate that is somewhat independent of the level of excess reserves. And if we are going to opt for that, then we need to begin to educate the market that our implementation of monetary policy is through interest on reserves. So that is what I am thinking. Tell me what I am missing or whether I don't understand something.

MR. MADIGAN. President Lockhart, I think our view is that the primary tool will be the interest on reserves rate. But the experience to date leads us to have some doubts as to whether that will put a hard floor on the federal funds rate. So we're presuming that we will, in order to harden that floor, need to take at least some reserves out of the system. Whether or not we will have to take a whole lot out at this point isn't clear, but it is possible we might have to. That is why we have been working on a number of tools.

MR. LOCKHART. In the old federal funds rate system, we used to operate with essentially about \$30 billion to \$50 billion, did we not, of excess reserves in order to create the supply to meet the demand that allowed us to hit that? We are a long way from that, so that

suggests to me that we are going to have a hybrid system. Is that it? We bring excess reserves down by \$300 billion or \$400 billion and operate in that territory?

MR. MADIGAN. That's possible. Well, of course, pre-crisis, obviously, we didn't have interest on reserves. And so we have only very limited experience as to what the parameters will need to be in terms of the excess reserves rate and draining reserves to hit a particular fed funds rate target.

MR. SACK. As I noted in my briefing, however, market participants are asking a lot of these same questions about the strategy. I think right now the strategy is not well defined or well laid out. So the questions they are asking are, "Will the reserve drains take place ahead of the increase in the interest on reserves rate or concurrent with it? Even if you are relying at least partially on the interest on reserves mechanism to work, how, then, will the appropriate level of reserves be decided? So just how big will the drain be?" There is obviously a lot of room between where we are and where we were in the old regime, and I think they are not sure in terms of reserves where the Committee intends to end up in that range.

MR. LOCKHART. Mr. Chairman, just to beat a dead horse here, many of us have been out reassuring the market that we have the tools. If there is uncertainty about that, I think we need to smoke that out and get as clear as we can as fast as we can. I think there is a big sense of urgency around these issues.

CHAIRMAN BERNANKE. I agree. But I feel reasonably comfortable. We think the interest on excess reserves could almost probably do the job by itself because, even if there is some gap, it is hard to imagine that, if you raised the interest rate on reserves high enough, it wouldn't bring up money market rates along with it.



The ability to drain reserves, sort of a belt-and-suspenders thing, is a second dimension of tightening. And if you look at Brian's sequence of exit statements, the first statement of actual tightening combines an increase in the interest rate on excess reserves with a \$200 billion drain or something like that. And I am actually, I would say, moderately encouraged by what we have been hearing. The staff has been extremely effective in getting these things up so that they can operate at large scale by the end of the year or early next year. So I think we are in pretty good shape.

Now, of course, we are in a new world, but I think we are in a pretty good shape. It would be good to give more clarity to the markets, but my own sense is that what we want to do is to state policy in terms of our tools. You know, the federal funds rate target is not going to be particularly informative. What we are probably going to want to do the first time that we tighten is to say that we have agreed to do this to the interest rate on excess reserves, to do this to the primary credit rate, and to drain x hundred billion dollars of reserves. And we can see what that does, and we can fine-tune it. I think that, clearly, we have the ability to tighten policy. But what is not firmly complete is a sharp correspondence between our actions and money market rates. Obviously we know the direction, but we need to get some experience with that. Then, I think the market is maybe a little overfixated on the question of sequencing and so on. When we have more control of the timing and more understanding of these tools, it would probably pay us, in a speech or some other context, to lay out more clearly both what the sequencing would be and what the regime is going to be. I mean, how are we going to express tightening and so on? But in terms of the fundamental ability to tighten policy, nothing I am hearing makes me think that we don't have that capacity.

MR. LOCKHART. That is very helpful to me, just to hear your views on it.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Just a quick comment on the unintended consequences of lists.

When we came up with the primary dealer list, I don't think anybody could have guessed that we would have a primary dealer credit facility. So when I think of coming up with lists of counterparties, I just worry about the unintended consequences. If we select firms based on size of institution, it might quickly be inferred that there is a broader reason to have the list constituted the way we have it. So when I think about that, it does seem that Governor Warsh's suggestion that, to the extent that we can broaden it but make it manageable for the Desk to do, we avoid the unintended consequence of making it look like a list that was based on size that may be misinterpreted for other purposes. I know it is much easier to deal operationally with fewer counterparties; but just given the perceptions that can be created by that, we might want to give some thought as to whether there are ways to broaden it so that we don't give that misperception.

Then the second list is the list of countries. We spend a lot of time thinking about stigma, and President Yellen and I were talking about this on the elevator coming up. But to the extent that we could come up with a size criterion that made it very clear that, if a market got to this size then we would entertain—it's kind of the opposite. It seems like having a much clearer criterion. One reason all of these other central banks want to be our counterparty is that we are signaling something. If we have a swap line with Mexico, people are inferring a signal that we are comfortable having them as a counterparty. I worry about stigmatizing the countries like Mexico and Korea and other countries that want potentially to be a counterparty in part for the signaling benefit. The way we get around that is if we have a very clear criterion that says, "If you get to this size, then maybe we will think about having a swap line." Maybe size isn't the

right metric, but coming up with some metric other than country-specific choices would make me more comfortable with that list as well.

CHAIRMAN BERNANKE. The North American location is hard to change. [Laughter] President Yellen, you had a two-hander?

MS. YELLEN. Yes. I just wanted to support that point. We were discussing this, and I agree with President Rosengren's comments. I do think we should think about, if we stigmatize this larger group of countries, what their response might be. For example, they might not feel so happy about having unfettered capital flows or having subsidiaries or branches of U.S. or European-based multilateral banks in their countries. They might change the way in which they supervise and regulate those operations, if they thought it was not automatic that they would get access to dollar liquidity in the same way they did in this crisis.

If I could just—this is the only thing I want to comment on—respond to President Plosser's comment on this, that ideally they have large stocks of reserves and we should want to encourage them to use those reserves first before drawing on us. I am not sure that is actually true. I think that the distinction here is similar to the old one between inside and outside money. The reserves that they hold are equivalent to inside money. When they sell dollar reserves they have in a crisis situation to provide liquidity to their banks, it is a propagation mechanism for causing exchange rate movements and international transmission of the disturbances that they are suffering. In contrast, when we provide liquidity, we are printing money. We are adding to the stock of outside money, and we circumvent those repercussions. So, in a crisis, the dynamics aren't the same. There is a good reason to have this kind of facility.

MR. TARULLO. Janet, I think your comment may have answered my question about your first observation. So you would favor a broad range of permanent swap facilities?

MS. YELLEN. You know, I don't know what the right answer is, but I am worried about restricting it to these four. President Bullard mentioned this concern as well, and I think President Rosengren is suggesting one way to use criteria to maybe broaden the group. But I am quite concerned about singling out these four and not making it larger. I understand there are political issues around that and boundary problems and so forth. But I am concerned about limiting it to these four. And there could be economic consequences. If you take a country like Korea and you say, "Well, we are not putting you in the same category as before," beyond what they might do with our banks, they may decide they need an even larger war chest. They may be more reluctant to have current account adjustments. It could have implications for—

MR. TARULLO. So you are kind of for swaps but are leaning toward more rather than fewer.

MS. YELLEN. Right.

MR. TARULLO. Okay.

CHAIRMAN BERNANKE. The four big ones clearly have far bigger banking sectors than any other countries in the world. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I just wanted to follow up and echo the points that President Yellen was just making. We have talked a lot here about swaps, and it has always been a very intuitive thing about what countries are included and which are not and why not. I think what we need is to lay out a policy for why countries are in and why countries are out, and then we would have something to say when Singapore comes to us as to why we are making the decision that we are making. I understand it is wrapped up with other sorts of geopolitical considerations. But there should be some sort of basic criteria that will delineate why certain countries—I can imagine Asian countries being moderately upset that the Swiss are

in, for instance. When I say Swiss, “It’s a small country, come on. This is an old club that you guys have been fostering for years.” And “You just don’t like us because we’re in Asia.” I can imagine that that is sort of the attitude. So if we could delineate a clearer policy about why we are doing this, that would also help us a lot on the Mexican situation and Canada, which has been inherited from the NAFTA treaty. But you guys all know this. It is all very sensitive because of the difficulties of assessing country risk and really saying, “Hey, your economy is not up to this.” So that is where I think we should go.

CHAIRMAN BERNANKE. I have two-handers from Presidents Plosser and Lockhart.

MR. PLOSSER. Yes, I had a quick comment. Janet, I think we’re talking about two different things. My support for the swaps early in the crisis is exactly the point you were making of the difference between inside and outside money, and I understand that. I was more concerned about having these lines of swaps continuously open in normal times whether we really wanted them used or whether, as Vice Chairman Dudley suggests, we price them in a way that prevents their usage except when a crisis might occur. I think that was where I was going.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Nathan, aren’t these facilities to four central banks effectively providing liquidity facilities through the central bank to at least three and maybe four major Eurodollar markets that would operate just as we did? They have foreign bank organizations that can get liquidity in a time of crisis. So South Korea or Thailand or whatever would be going to market conceivably in one of these places to get their liquidity; is that right?

MR. SHEETS. Yes, absolutely. The memo that we put forward didn’t have a lot of quantitative indicators for these economies. We’ve gone down that path in the past, and the problem we have is that there is a whole range of different things—comparing apples and oranges.

That makes it very difficult to compare. But in this particular case, one of the reasons we came up with the recommendation that we did is, as the Chairman mentioned, the large size of the financial institutions from these four, and then the dollar funding markets in these economies clearly set them apart from other potential counterparties. You really see a qualitative difference between the folks that we are recommending and the ones that we aren't. Given that there is such a gap, my sense is that it's not creating stigma in saying that the dollar funding needs and the size of institutions for these four are different from those for the Koreans or the Mexicans. I think they very much agree with that.

Now, the justification for the North American ones is a little different. As the Chairman mentioned, that has to do with the extent of our integration. If Mexico blows up, there is a high probability that we're going to feel some effect from that, or if the Canadians have some sort of financial tension, there's a high probability we're going to feel that. That is a different kind of relationship than exists with some of the Asian economies, even though we also very much value those relationships.

The other point that I think is worth making here, which also helps with the stigma point, is that, over the last year, the stable of IMF facilities has expanded. In particular, they now have a very attractive facility, the flexible credit lines, which Mexico has received, which is geared for top-tier emerging-market economies and is designed to give them significant access to liquidity, frankly, on more-generous terms and longer horizons than our swap lines would. So there are other mechanisms out there in the global financial system to address these issues of stigma, including what the IMF has to offer.

CHAIRMAN BERNANKE. President Lockhart, in one of my previous comments to you about our ability to tighten, I should have mentioned this. The backup to all of that is the Lacker strategy, of course, of selling the assets, which we can always do if necessary. Anyone else?

MR. LACKER. Potentially a primary strategy. [Laughter]

CHAIRMAN BERNANKE. I'm just saying in terms of having some assurance that we can respond if necessary. Okay. Thank you for very useful input. We will try to get something to you to get more comments shortly. We do need to quickly ratify domestic open market operations. Could I have a motion?

MR. KOHN. So moved.

CHAIRMAN BERNANKE. Any objection? Okay. Coffee is ready. Why don't we take about fifteen minutes for coffee.

[Coffee break]

CHAIRMAN BERNANKE. Okay. Why don't we recommence. Next on the agenda is the economic situation. Let me turn it over to Dave Stockton to begin the presentation.

MR. STOCKTON. Thank you, Mr. Chairman. With the incoming data having been unusually kind to us and changes in conditioning assumptions having only small and largely offsetting effects, the broad contours of the Greenbook forecast have changed very little since September. As we had anticipated, real GDP turned up last quarter and appears to be on track to expand again in the current quarter. On average, we project real activity to increase at an annual rate of about 3 percent in the second half of this year. Roughly speaking, we expect the economy to expand at a similar pace through most of 2010 before picking up more noticeably in 2011. The main drivers behind our forecast of continued moderate growth are an accommodative monetary policy, an easing of tight credit conditions, a gradual waning of negative wealth effects, and an accompanying improvement in household and business sentiment.

While these same factors have been a feature of our forecast since last spring, we now have some tangible evidence of their influence on financial and economic conditions. The stock market has moved well above its earlier lows, house prices appear to have flattened out, bond spreads have come in dramatically, and household and business confidence has rebounded. These improvements have been

accompanied by upturns in real GDP, industrial production, and importantly, final sales. In the household sector, consumer spending has been increasing at a moderate pace, even after accounting for the fluctuations induced by the “cash-for-clunkers” program, and home sales and housing starts have been trending up. And in the business sector, equipment spending appears to be stabilizing after declining steeply for a year and a half.

Of course, while the overall improvements that have occurred in financial conditions, spending, and production are supportive of our outlook, these developments far from ensure the continued steady gains in output that we are projecting. Indeed, if you view current conditions as inconsistent with the tenor of the recovery that we are projecting, we would agree. Our forecast is predicated upon a further narrowing of the equity premium, an additional decline in bond spreads, some easing of currently tight credit conditions, and further improvements in household and business sentiment.

While, in broad terms, events have been unfolding much as we had expected, there have been some surprises with which we have had to contend. Once again, the incoming data on spending and production have been somewhat stronger than we expected, whereas the data on employment and hours have been weaker. As a result, we now estimate that labor productivity increased at an average annual rate of about 5 percent through the first three quarters of this year. With both our statistical filtering models and the anecdotal reports suggesting that some of these increases will be permanent, we raised our estimate of the level of structural productivity in this forecast.

Given this higher level of structural productivity, we now think businesses will have less need to increase labor input in order to meet rising product demand. As a consequence, we postponed the projected bottoming-out of employment until early next year, with noticeable job gains not expected to be evident until the spring. Accordingly, the unemployment rate is now projected to peak above 10 percent in coming months and to recede to 9½ percent by the end of next year and to 8½ percent in late 2011—a path that is about ¼ percentage point above that incorporated in our September Greenbook.

Beyond dealing with the crosscurrents in the incoming data, we confronted only small and largely offsetting changes in the major factors conditioning our forecast. A slightly weaker dollar, somewhat faster growth in foreign activity, and a gradual spur to demand from the higher level of potential output were pluses for projected growth of real GDP. But these favorable influences were more than offset by a weaker stock market and higher oil prices. On net, we edged down projected growth of real GDP a tenth in both 2010 and 2011—to increases of 3.4 percent and 4.4 percent, respectively.

Because the basic contour of the forecast and its rationale are so similar to our previous projection, I thought I would organize the remainder of my remarks around



four questions that could be raised about our projection, especially in light of recent developments. First, are we giving too little signal to the recent strength in the readings on spending and production? Second, are we giving too much signal to the recent weakness in the data from the labor market? Third, and in the opposite direction, are we headed for an extended jobless recovery? And fourth, with fiscal impetus likely to fade and the inventory cycle providing only a transitory lift to production, why are we forecasting a sustained acceleration of activity?

Let me start by addressing the question of whether we are reading too little signal into the unexpected strength in the recent data on spending and production. As you know we revised up again our estimate of the growth of real GDP in the third quarter—in this forecast about 1 percentage point, to 3½ percent at an annual rate. But rather than propagating forward any of that impulse to growth, as might be suggested by some models of real GDP, we have actually revised down the growth of real GDP in the current quarter about ½ percentage point, to an annual rate of 2¾ percent. We think that there are a few reasons to believe that the third-quarter GDP figures overstate the underlying pace of the expansion.

For one, we are skeptical of the BEA's outsized estimate of the positive contribution of motor vehicle inventories to third-quarter GDP. In my experience, most folks would rather have bamboo shoots placed under their fingernails than have to sit through an explanation of light truck inventory valuations. [Laughter] So perhaps this will be a painful introduction for President Kocherlakota to some of the more arcane aspects of the forecast. While models of truck inventories are found infrequently in the *American Economic Review*, these types of models are a mainstay where most of my important results appear, the "*Journal of Obscure and Largely Useless Facts*." [Laughter] We do a fairly detailed accounting of motor vehicle inventories by make and model, and we don't see in the data the massive shift in the composition of inventories toward higher-valued vehicles that is implied by the BEA's figures. To be sure, we miss from time to time, but rarely by the ½ percentage point of real GDP implied by the published data. In the forecast, we assume that a more normal composition of motor vehicle inventories will be established in the fourth quarter, with a corresponding deduction from the contribution to real GDP growth.

A second reason to discount the strength in third-quarter GDP is that some of the gain reflected a surge in defense spending. Because outlays are constrained by the level of appropriations, some of last quarter's spending probably came at the expense of spending this quarter.

Finally, we have also discounted some of the recent strength in consumer spending. Here, however, I'll admit that we are on more uncertain terrain. Real PCE excluding motor vehicles increased at annual rate of 2 percent in the third quarter, about ¾ percentage point faster than we had projected, pushing the saving rate down to 3¼ percent. With income so weak, consumer credit conditions tight, and

confidence still at a low level, we have responded to the unexpected strength by marking down our estimates of the change in real PCE for the next few months.

The bottom line is that we do read the incoming data as suggesting that the economy is stronger in the second half of this year than we had previously thought, but not by as much as the upward revision to the third-quarter increase in real GDP might suggest.

The second question I posed is whether we are taking too much signal from the recent weakness in the labor data. After all, the decline of 210,000 in private payrolls in September was only about 100,000 jobs weaker than our expectation, and the rise in the unemployment rate to 9.8 percent was in line with our forecast. Yet we weakened employment appreciably in coming months and raised projected unemployment.

As I mentioned earlier, in light of continuing upside surprises in labor productivity, we felt a balanced reading of the data would include ascribing some of this strength to permanent increases in the level of structural productivity. Many of you have reported stories from your contacts suggesting that, under enormous pressure, firms are finding ways to innovate to cut costs. Moreover, the recession has probably led less-efficient capacity to be taken offline, with positive consequences for average labor productivity. In the short run, given our forecast for aggregate demand, these changes result in a weaker projected labor market.

Indeed, some of you may be concerned that we didn't move far enough in this direction and might wonder why we aren't forecasting a more protracted period of jobless recovery. In our forecast, we raised our estimates of the increase in structural productivity for last year and this year but have just carried that higher level through to 2010 and 2011. Implicitly, we are assuming that businesses have already achieved most of the outsized efficiency gains available to them. But it is certainly possible that they could have a lot further to go on this front.

We illustrated a productivity-driven jobless recovery in an alternative simulation in the Greenbook. According to that simulation, if increases in actual labor productivity were to average about 3 percent per annum over the next few years rather than the 1 percent pace we are projecting, the unemployment rate would still be above 9 percent at the end of 2011. We acknowledge that this is a distinct risk. But we see this possibility as balancing the risk that, by raising structural productivity in the baseline forecast, we may have overreacted to what will ultimately prove to have been a cyclical pop in output per hour. In those circumstances, once the uncertainty about the durability of the recovery recedes, firms could well move more aggressively to increase hiring. I should note that, in defense of the baseline forecast against these two alternatives, our employment projection is consistent with initial claims continuing to drift down at about the same pace that they have in recent months.

The fourth question I posed was, Why do we think that there will be a gradual acceleration of activity, especially in 2011, even as the stimulus from fiscal policy fades and the boost from the turn in the inventory cycle plays out? One reason is that, in contrast to some outside forecasters, we see the contribution to growth from inventory investment, at least outside motor vehicles, as likely to be a fairly steady positive through 2011, adding about  $\frac{3}{4}$  percentage point to the growth of real GDP next year and about  $\frac{1}{2}$  percentage point to growth in 2011. These inventories have been liquidated at an increasing pace in recent quarters, and thus their eventual contribution to the growth of real GDP still lies ahead. We are forecasting the inventory cycle to be stretched out because we anticipate that business caution and constrained credit availability will fade only slowly.

As you know from reading the Greenbook, fiscal policy is expected to provide an impetus to real GDP growth of about 1 percentage point both this year and next and then to be a neutral influence on growth in 2011. But this fading impetus is offset by an accommodative monetary policy and generally improving financial conditions, which are stimulating demands that are further amplified by positive multiplier–accelerator forces. By 2011, these influences should be making their clearest mark on spending for durable goods, housing, and business investment, all of which are the components of demand most sensitive to the cost and availability of credit and capital. Even so, our projected rebound in these categories of spending still leaves investment shares low by historical standards. For these reasons we continue to see the baseline forecast as the best bet in an admittedly wide range of possible outcomes.

The major news of note on the inflation side of our forecast has been the further upward shift in the path for crude oil prices. The corresponding upward revision that we have made to consumer energy prices has led us to mark up our projection for total PCE inflation by nearly  $\frac{1}{2}$  percentage point in the current quarter and in the first quarter of next year, to 2 percent and  $1\frac{3}{4}$  percent, respectively. Beyond that, our forecast is virtually identical to the one in September, as the indirect effects of higher energy prices are offset by the wider margin of slack in this forecast.

Core PCE prices, which increased at an annual rate of 1.5 percent in the third quarter, are projected to gradually slow to a 1.1 percent pace in 2010 and a 1 percent pace in 2011. Given the considerable slack that we expect to prevail in product and labor markets over the next two years, this disinflation is relatively muted owing to our view that longer-run inflation expectations will remain reasonably stable. For headline inflation, the current and expected rise in energy prices results in an acceleration of total PCE prices from a 1.1 percent increase this year to an increase of 1.4 percent in 2010. With a much shallower rise in energy prices projected for 2011, headline inflation falls back to a 1 percent pace, the same as that of core prices. Steve will continue our presentation.

MR. KAMIN. Since your last meeting, there hasn't been enough time to complete the playoffs and the World Series, much less to significantly alter our outlook for the world economy. We feel more secure that a global recovery is under

way, and we've notched our forecast of overall foreign GDP growth a bit higher for the near term. Thereafter, however, our outlook is little changed, and we continue to grapple with some pretty thorny questions about how the recovery abroad will play out.

As Nathan has reported to you in past meetings, the bounceback from recession has been strongest in those regions that were least implicated in the initial financial turmoil. We had already judged that economic growth in emerging Asia—which soared at a 14 percent annual rate in the second quarter—risked being too hot not to cool. Assuaging our concerns somewhat, incoming data suggest that emerging Asian GDP decelerated in the third quarter, but to a still-strong 9 percent; we have already received GDP numbers for China, at 9.8 percent; Singapore, at nearly 15 percent; and Korea, at 12.3 percent.

In Latin America, as well, a strong recovery appears to be in progress. The Brazilian economy had already grown nearly 8 percent in the second quarter, and indications are that a solid expansion has continued on the back of government credit programs, expansionary fiscal policies, higher commodity prices, and improvements in financial markets. In Mexico, where GDP had plunged again in the second quarter as a result of swine flu and auto-industry cutbacks, recent increases in industrial production and exports—much of them tied to the reviving U.S. market—point to a sharp rise in activity in the third quarter. All told, we now estimate that Latin American GDP, after falling 2 percent in the second quarter, rebounded nearly 7 percent in the third.

Going forward, we anticipate that overall growth in emerging economies will step down to a more sustainable 5 percent pace over the next two years. Such solid but unspectacular expansion is by no means assured. The ongoing rebound may be more dependent than we've assumed on extraordinary fiscal and credit stimulus in China, which has generated important spillovers via higher imports and commodity prices, but this stimulus cannot last forever. Additionally, the current surge in production in China and elsewhere may in part involve inventory restocking predicated on overly optimistic anticipations of export sales to the advanced economies. But even so, the fundamental underpinnings of recovery in emerging markets seem fairly strong: Their financial systems are in reasonably good shape; they are regaining access to international credit markets; and in most cases, they have scope for further stimulus of domestic demand if conditions warrant.

We are, frankly, less confident about the prospects for the advanced foreign economies. Data for the third quarter have been mixed. In Japan, recent readings on industrial production, consumption, and trade have been quite positive and suggest another solid rise in GDP. And in the euro area, further increases in purchasing manager surveys, industrial production, and new orders suggest expansion. However, GDP in the United Kingdom surprised us by dropping 1½ percent in the third quarter, despite survey indicators pointing to moderate growth. And Canada's monthly GDP series moved down in both July and, as we learned after the Greenbook projection

was put to bed, August as well. All told, we estimate that GDP in the advanced foreign economies grew 1½ percent in the third quarter, its first positive reading since the first quarter of 2008 but a touch below what we'd written down in September.

Although we expect the recovery in the advanced foreign economies to quicken in the current quarter, we continue to struggle with the longer-term outlook. On the one hand, financial stresses and balance sheet problems point to an unusually slow and prolonged recovery. In both the United Kingdom and the euro area, bank loans have been declining in recent months. While these declines may reflect weak demand for loans as well as weak supply, the stresses in the banking sector are worrisome, particularly given the bankcentric nature of intermediation in Europe. On the other hand, deep recessions historically have given way to sharp recoveries. Moreover, future economic growth should receive important boosts from the inventory cycle, the expansion of exports to the United States and emerging markets, and continued policy stimulus.

Balancing these forces for recovery with the headwinds from the financial sector I described earlier, we continue to project economic growth through the forecast period of some 2½ to 3½ percent, a pace that only slowly erodes the extent of resource slack. Partly as a result, headline consumer price inflation, which currently is running negative on a 12-month basis in most foreign advanced economies, picks up only gradually over the next few years. Accordingly, we continue to believe that major foreign central banks will wait until the second half of next year or early 2011 to start tightening policy. Anticipations of this extended period of low rates and ample liquidity appear to explain why long-term government bond yields throughout the advanced economies have remained low since this summer, even as the accelerating global economic recovery has supported increases in equity prices, declines in credit spreads, and upticks in a wide range of commodity prices. Notably, WTI oil prices have risen some \$8 per barrel over the intermeeting period, apparently reflecting optimism about future demand.

Unlike the price of oil, the value of the dollar ended up little changed over the intermeeting period, but it garnered an awful lot of attention on the way. A number of points are worth noting here. First, although the broad dollar index has fallen 11 percent since its recent peak last March, it had risen about 20 percent since the summer of 2008 and so remains above that previous low. Second, we continue to believe that much of the prior upswing in the dollar was due to flight-to-safety flows and dollar shortages in funding markets and that, as Brian Sack suggested earlier this afternoon, the fall in the dollar since the spring has principally reflected the reversal of those developments as financial stresses have abated. The contained nature of U.S. Treasury yields might seem to contradict this narrative of rising appetite for risk, but as I noted earlier, foreign bond yields have also remained quiescent, likely anticipating a long period of monetary accommodation. Furthermore, we have seen little evidence that foreigners, particularly in the official sector, are shifting out of dollars to a significant extent or that any other sort of disorderly conditions are materializing.

Finally, the decline in the dollar to date will lend important support to U.S. economic activity. At present, we anticipate that U.S. net exports, having added some 2 percentage points to U.S. GDP growth during the first half of this year, will have a roughly neutral influence thereafter as the stimulus from a sharp recovery in exports is about offset by a similar expansion of imports. An alternative simulation included in the International Developments section of the Greenbook, which shows the effects of a 10 percent decline in the real broad index of the dollar, provides some sense of the implications for the outlook had the dollar remained at its March peak: Export growth would be some 2 to 3 percentage points lower, import growth about the same amount higher, and U.S. GDP growth as much as 1 percentage point lower by the second half of next year. As well, inflation would be about ½ percentage point lower. Accordingly, the depreciation we've seen to date has helped to reflate the economy while avoiding becoming disorderly. Going forward, we project much more gradual dollar depreciation, as is our wont, but we will be monitoring exchange markets carefully for any more-abrupt shifts. Brian Madigan will now continue our presentation.

MR. MADIGAN.<sup>2</sup> I will be referring to the package labeled “Material for Briefing on FOMC Participants’ Economic Projections.” Exhibit 1 depicts the broad contours of your projections for 2009 to 2012 and over the longer run. Most of you continue to project a protracted economic recovery, with the unemployment rate declining slowly and inflation remaining subdued over the next few years. Based on your accompanying narratives, most of you anticipate that about five to six years will be needed for the economy to converge fully to its longer-run path. However, some of you stated that the convergence process might well require seven or eight years, while a few of you expect inflation to reach its longer-run rate in just a few years but anticipate that the convergence process for the real economy could take somewhat longer.

Exhibit 2 reports summary statistics regarding your projections for 2009. Your previous projections—collected in conjunction with the June FOMC meeting—are provided in italics, and Greenbook forecasts are included as a memo item. Your current projections for real GDP growth this year have a central tendency of about minus ½ percent to zero, around a percentage point higher than in June. The GDP decline during the first half was a bit sharper than most of you expected at the time of the June meeting, which took place a few weeks before the BEA’s publication of its preliminary second quarter release and its substantial downward revision for first quarter. Regarding the second half, most of you now anticipate 3 to 3½ percent real GDP growth, a couple of percentage points higher than the central tendency of your projections last June. Some of you noted that the recent pickup in economic activity was importantly influenced by transitory government programs such as “cash-for-clunkers” and the first-time-homebuyer tax credit.

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<sup>2</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 2).

Your projections for the fourth-quarter average unemployment rate are about the same as those made in June, and your forecasts for inflation for the year as a whole are also little changed. However, for the first half of 2009, overall and core inflation came in somewhat lower than most of you had anticipated. For the second half, most of you revised up your forecasts for overall inflation, probably reflecting at least in part the recent increase in energy prices, and many of you shaded up your forecasts for core inflation.

Exhibit 3 tabulates the central tendencies and ranges of your projections for calendar years 2010 through 2012 and over the longer run. The broad contours of these projections are much the same as in June. Most of you anticipate that real GDP will increase  $2\frac{1}{2}$  to  $3\frac{1}{2}$  percent in 2010 and then accelerate by about a percentage point to about  $3\frac{1}{2}$  to  $4\frac{1}{2}$  percent in 2011, with growth remaining brisk in 2012. A few of you made modest revisions to your estimates regarding the longer-run sustainable rate of GDP growth, but the central tendency of longer-run growth projections is virtually unchanged at  $2\frac{1}{2}$  to  $2\frac{3}{4}$  percent.

Most of your unemployment rate projections for 2010 and 2011 moved down a notch since June, perhaps reflecting stronger near-term growth, but nearly all of you still expect the unemployment rate to remain above 8 percent in the fourth quarter of 2011. Moreover, nearly half of you made upward revisions to your projections regarding the rate of unemployment that is sustainable over the longer run; the central tendency for these projections now stands at 5 to  $5\frac{1}{4}$  percent, roughly  $\frac{1}{4}$  percentage point higher than in June.

As in June, most of you see the outlook for inflation as subdued over the next several years. Your projections for total PCE inflation next year have a central tendency of about  $1\frac{1}{4}$  to  $1\frac{1}{2}$  percent, a bit above the central tendency of your core inflation forecasts, perhaps reflecting lingering effects of increased energy prices. Most of you see total and core inflation next year running noticeably below the  $1\frac{3}{4}$  to 2 percent central tendency of your longer-run inflation projections, shown to the right for total inflation. Over 2011 and 2012, your inflation projections exhibit considerable dispersion, with a central tendency of roughly 1 to 2 percent and, by 2012, a range of about  $\frac{1}{4}$  to  $2\frac{1}{4}$  percent. This dispersion apparently reflects substantial differences in your views of the determinants of inflation and, to a degree, differences in your estimates of economic slack. Perhaps the staff briefing on inflation dynamics at the December meeting and the subsequent Committee discussion will further elucidate the reasons for these divergences.

The left panels of exhibit 4 indicate that nearly all of you continue to view the degree of uncertainty surrounding your projections of both output growth and inflation as high compared with historical norms. In your narratives, some of you cite continuing vulnerabilities in the financial sector as reasons for this elevated uncertainty, while others highlight the uncertainties associated with fiscal stimulus and persistent budget deficits. As shown in the right-hand panels, nearly all of you now judge that the risks to output growth are roughly balanced, with a sharp drop

since June in the number who see the risks tilted to the downside. Most of you also continue to view the risks to the inflation outlook, the lower right-hand panel, as roughly balanced. However, a few of you see the prospect of protracted economic slack as tilting the inflation risks to the downside, while a few others point to the challenges in managing the Federal Reserve's balance sheet, and possible adverse effects of fiscal policy on inflation expectations, as skewing those risks to the upside. That concludes our presentation, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much. Questions for our colleagues? It must be a very good briefing.

MR. STOCKTON. As we used to say in Little League, Mr. Chairman, a walk is as good as a hit. [Laughter]

CHAIRMAN BERNANKE. I'm detecting a theme here. Okay. Then we're ready to begin our go-round. President Lockhart, you're lead-off hitter.

MR. LOCKHART. Lead-off hitter [Laughter]. Singles and doubles, Mr. Chairman. Despite better-than-expected economic growth in the third quarter, the sentiment of my Sixth District directors and business contacts has neither improved nor deteriorated substantially since our last meeting. The current tenor of business activity is flat to moderately more positive, but where it is more positive, there is uneasiness that improvement may not be sustainable.

Several directors reported conversations citing uncertainty about the future policy environment, including health care policy, as retarding hiring and investment. We also heard skepticism about the durability of private spending absent stimulus programs. A number of my contacts said that orders and top-line revenue would have to grow a great deal and be sustained for many months before new full-time hiring or capital expenditures would be undertaken. Firms reported that they have ample ability to expand their business with their existing labor force and temporary labor if needed. However, few expect a significant upturn in orders in the near term.



Our inquiries about capital expansion got more than a few incredulous looks. Capital spending for business expansion does not seem to be a realistic consideration for most of our contacts.

I continue to hear that small businesses are struggling to find adequate financing to support any expansion and rehiring. Work done recently by the Atlanta research staff on the makeup of job losses points to the unusually large concentration of job losses in the small business sector.

Through the end of 2008, businesses with 50 or fewer employees accounted for about 45 percent of net job losses in the recession. Firms of this size accounted for only about 9 percent of job losses in the 2001 recession. Our contacts also broadly confirm the view that a major commercial real estate problem is developing. We have the view, along with others, that commercial real estate will have a sizable downside impact on regional and small banks. I am concerned that the interplay of the commercial real estate correction and weak job growth due to constrained credit is shaping up to be a serious headwind.

To sum up, anecdotal feedback from our recent contact cycle does not validate any reliable trend in the stronger GDP numbers and paints a picture of highly cautious and extremely reluctant business actors. That said, I think it is reasonable to incorporate solid near-term growth in second-half estimates, but I remain skeptical about the medium term. I remain to the pessimistic side of the Greenbook forecast, and I am not inclined to make too much of improved recent and near-term expected data in thinking about exit timing and communication.

As regards the inflation outlook, incoming price data suggest a little more disinflationary pressure than I had assumed in June. In the forecast submitted with this meeting, I marked down my core inflation projection a little, and I judge the inflation–deflation risks to be roughly balanced.

In preparation for this meeting, I and my staff had a number of conversations with financial market participants. There was uniform satisfaction with the continuing normalization of financial

markets. Contacts expressed more confidence and reported that they believed the markets, in general, have confidence in the idea that the Fed has the tools to execute an exit strategy. A universal concern, however, is the strategic approach to and timing of the exit. My contacts see some risk of a premature exit, a concern I share. But what was most notable in my recent conversations was concern about premature communication of exit intentions and the market reaction to changes in the Committee's statement wording. I won't venture any further into tomorrow's discussion. So I will stop there. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I guess I'm up second. So I don't know what that means I'm supposed to do as a baseball player. Get on base, right?

MR. TARULLO. Advance the runner.

MR. PLOSSER. Advance the ball? [Laughter]

PARTICIPANT. Sacrifice.

CHAIRMAN BERNANKE. Hit to the right side. [Laughter]

MR. PLOSSER. Hit to the right side behind the runner, right? That should be easy. [Laughter] Thank you, Mr. Chairman. Business conditions in the Third District remained sluggish in September and October. While regional business contacts continue to anticipate a recovery in the months ahead, expectations of the recovery's strength seem to have moderated somewhat, and uncertainty abounds. So let me touch on a few highlights.

Our manufacturing survey's general business activity index fell from 14.1 to 11.5 in October. However, I am not too concerned about this slight drop. The index has been positive now for three consecutive months. The last time that occurred was in November 2007. The index of future activity remains high, although it was down a few points from September. It is well within

recovery ranges from past experience. Payroll employment continues to decline in the region and at a slightly faster pace than reported six weeks ago, but the rate of decline still is less negative than that of the nation as a whole. The average unemployment rate in the three states in the District rose 0.2 percentage point, to 9.2 percent, but still remains below the national figure. The District's commercial real estate market continues to be weak, as it seems to be everywhere. Our contacts tell us that they are not expecting any improvement there until 2011.

At the national level, recent data on the economy continue to point to an emergent recovery. Financial market conditions continue to improve, but the labor market remains under severe stress, and I anticipate further modest increases in the unemployment rate. Nevertheless, the pace and character of real activity appears to be consistent with employment growth turning positive in the not-too-distant future. I have become more confident rather than less that the emerging recovery will be a sustainable one even after the effects of fiscal and monetary stimulus begin to wane.

On balance, the recent data on third-quarter growth came in somewhat stronger than I expected in our last forecast submission. This has led me to revise up slightly my own projection for growth in 2009, compared with that in June. But the basic structure and shape of my forecast for 2010 and beyond remains largely unchanged from my June forecast. I anticipate that the recovery will gain more solid footing as we move into 2010 and real growth will average about 3 percent in 2010 through 2012. This is somewhat weaker growth in output than in the Greenbook. I suspect the differences between our forecasts reflect different assumptions about the magnitude of the impact of the fiscal stimulus and the evolution of natural or potential output. Indeed, if there is a risk to my GDP forecast, it is likely to be to the upside—that is, economic growth could easily turn out to be faster than the 3 percent average that I am predicting.

My forecast for inflation continues to differ from the Greenbook's. In the near term, I expect inflation to remain rather benign, but I expect it to drift up over the next couple of years. In contrast, the Greenbook anticipates disinflationary pressures over the forecast period based on low levels of resource utilization and large output gaps. I believe that we will ultimately maintain a moderate rate of inflation, but to do so will require a significantly higher path for the fed funds rate than is in the Greenbook.

My view of optimal policy, therefore, assumes that the fed funds rate will reach 2½ percent by the end of 2010, still very low by historical standards. Associated with an increase in the funds rate, I assume that we will begin reducing the level of excess reserves in the banking system through our various tools that we've been discussing.

My inflation forecast is shaped by my views about the fundamental drivers of inflation dynamics. I concur with the broad thrust of President Bullard's memorandum on output gaps. I have been arguing for some time now that I am skeptical that low resource utilization and large negative gaps as typically measured are generically useful concepts for thinking about the structural determinants of inflation dynamics. Aside from the difficulties of measurement surrounding gaps, the current state-of-the-art empirical models of inflation dynamics, such as the New Keynesian DSGE models, do not give clear guidance on the appropriate role of traditional output and employment gaps. That is not to say that we cannot build models where such gaps might matter. We clearly can. But it means that the nature of our debate is about the models and, just as important, about the nature of the shocks we are facing.

We should remember that these newer models were developed, in part, as an outgrowth of the failure of earlier models to capture the instability in the inflation–output dynamics. Like President Bullard's, my reading of the empirical evidence—for example, Stock and Watson's recent

work on Phillips curve forecasts—is that gap or activity measures are not reliable predictors of inflation for the post-1970s U.S. economy. Indeed, recent work by the Philadelphia staff looked at Phillips curve forecasts of inflation over the last six recessions. Outside the double-dip recession of 1980 and 1981, gap-augmented inflation prediction equations would not have led to significantly better forecasts than benchmark autoregressive models. Notably, this was also true in the 1974–75 recession, in which a fairly large unemployment gap opened up, and it is also true for the current recession.

I am more persuaded by the theoretical and empirical evidence that indicates that inflation outcomes depend importantly on inflation expectations, which in turn depend significantly on our own credibility and commitment to price stability. Philadelphia has its own New Keynesian DSGE forecasting model in which inflation dynamics are governed primarily by expected inflation and marginal costs, as these models tend to imply, and it suggests much greater inflationary pressures than in the Greenbook, especially when one conditions on the Greenbook funds rate path. In that conditional forecast, inflation runs at about 5 percent by 2012. The unconditional forecast from the model calls for a funds rate path that looks more like that embodied in the current futures market, but even in that forecast, inflation rates drift up noticeably over the forecast period. Admittedly, different specifications of such models will likely lead to different inflation forecasts, but a key element of all these equilibrium models is the interplay between monetary policy actions, expectations, and economic outcomes. They suggest that, if we respond in an appropriate and predictable manner to the shocks in the economy, inflation expectations will remain anchored, and inflation will remain stable.

Fortunately, measures of medium-term and longer-term expectations of inflation have largely remained stable. However, inflation uncertainty seems to be rising. The Philadelphia staff

examined the cross-sectional dispersion of inflation forecasts from our SPF respondents since the 1980s. To the extent that the forecast dispersion is lower when monetary policy is more credible, we can take comfort in the fact that the forecast dispersion today is quite a bit lower than it was during the 1980s. However, dispersion measures such as the standard deviation or interquartile range have been trending up since 2005 and have risen noticeably since 2007. This trend, I think, bears watching as it may be an early signal that the stability of inflation expectations may become fragile.

The concern that I've been expressing for the last several meetings is that we are creating a narrative that overemphasizes resource utilization as a determinant of monetary policy. A key question we will face in the months ahead is when to begin the policy-tightening cycle. The extraordinary monetary and fiscal policy actions taken to date raise the possibility that policy may have to be recalibrated at a time when potentially mismeasured gaps suggest that a combination of actions should remain in place. The message we continue to drive home in our statement that stresses gaps and slack make this transition or recalibration more difficult and/or more disruptive than necessary, or it may even lead us to inappropriately delay action.

More generally, I believe that the timing of our recalibration will mean that we will need to pay attention to more than just gaps and measures of expected inflation. Given the extraordinary nature of our actions and the consequences for our balance sheet and the fact that we are de facto with a zero lower bound, we will need to focus on various quantities, such as the mix of required reserves to excess reserves, new loan creation, and general portfolio positions of banks as they seek higher returns for the massive reserves that we have forced them to absorb. As banks begin to seek higher returns, excess reserves will be transformed into required reserves as the traditional money-multiplier mechanism begins to recover. We may not be exactly sure where these funds are going.

They may be used to purchase short-term Treasuries, guaranteed government debt such as MBS, or some other duration-lengthening asset, or they may go into loans as risk appetites grow. As a consequence, we may find it hard to identify the early stages of such transition by monitoring only prices, but it will be occurring nonetheless. Thus, I believe that quantity measures should become an important and routine part of our policy discussions going forward and as we contemplate the timing of our exit strategy. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. The Eighth District economy has generally performed better than the U.S. economy as a whole during the last two years. Payroll employment nationally has declined about 5.4 percent since 2007, since the recession began. In the District, for 16 metropolitan statistical areas, payroll employment has declined only about 3.7 percent—bad to be sure but considerably better than the nation as a whole. This generally extends across two-digit SIC codes. One exception is education and health, which has actually grown 3.7 percent nationally during the same time period but has grown only 2.8 percent in the District metropolitan statistical areas. Very recent data on employment in the District, however, have been worse than in the nation as a whole, and we're watching this very closely. But the District data tend to be more volatile, as you might expect, and it is not clear at this point how meaningful they are, but I will report on that in the future. Eighth District unemployment is just over 9 percent in our sixteen MSAs. Anecdotal reports indicate—as many of you have noted and, I'm sure, will note—that commercial real estate is a key concern. The near-term outlook for this area is quite grim indeed. Businesses are very reluctant to hire, and we are in an environment of continued business caution and continued caution on capital expenditures, in particular.

Nationally, I thought it was heartening to see the positive GDP growth number after four consecutive declines. I have actually seen only two positive numbers since joining the Committee. [Laughter] I have seen four negative ones. So I hope that this is one in a long string here. I was also heartened. I take this as hard evidence that the recession is ending and that we are in a position to recover from this very deep and very severe recession. We certainly had an equity market rally through the spring and summer, but that was based on an expectation of actually better performance in the fall of 2009 and, I think, also the marking down of the probability of a very severe depression-like outcome during the spring. That was an expectation of good numbers coming in. So it was heartening to see a good number actually come in. I expect that the economy will continue to grow in the fourth quarter and into the first half of 2010 and that the probability of returning to recession at this point is small. I think history shows that the double-dip recession is actually not that common an outcome. It could happen, but it is not that common.

Based on both business contacts and models, I expect that labor market outcomes will continue to lag behind the rest of the economy, and I continue to be encouraged by growth globally, on the whole. I was one who was very worried about the global nature of this downturn. I thought we might get stuck in a new reality that we did not understand completely and that we had not faced in the postwar era. That has turned out to be unwarranted. We have a lot of growth globally, and I find that very encouraging.

I continue to believe that there is a near-term deflation risk and a medium-term risk of higher-than-desired inflation, and that is how I have continued to describe the inflation outlook. I do think the near-term deflation risk is fading. I am not quite ready to give it up completely; maybe if we make it all the way into 2010. For instance, year-over-year CPI headline inflation is actually still negative. So I am still a little worried that, if we got some bad data over the winter, you could



get into a deflationary scenario. But the risk of that is fading. The medium term—say, two-to-three-year—inflation risk is rising because of large fiscal deficits and a very accommodative monetary policy, which may, in fact, overwhelm all other considerations.

Inflation expectations are relatively stable, indeed; but in my opinion, it is a bit of an illusion. I think expectations are more at risk of becoming unmoored today than at any time in the 25 years prior to this crisis. If we were a smaller, emerging-market type of economy pursuing the policies we are pursuing today, we would not do very well. Investment would flee our country, and our currency would depreciate a lot. We do not see those outcomes in the United States partly because we're the big kid on the block. We have a lot of size, and we have a reservoir of credibility on our side. But those advantages do not guarantee success and should not lull us into complacency about the types of outcomes that can materialize when you put these types of policies in place.

The Greenbook policy path for the fed funds rate seems unlikely to me. I think we may be forced into a tightening action well before 2012, even though the 2012 date is actually consistent with the past behavior of this Committee. In the past the Committee has not started a tightening cycle until two and a half to three years after the recession was over. That was the case in 1994 and again in 2004. Our quantitative easing program as envisioned in the Greenbook looks suboptimal to me. It is unclear to me why we should take a large position in agency MBS arguing that it influences long-term interest rates and then not adjust on that margin in reaction to incoming data on the economy. This is a tool that we can and should use to carry out stabilization policy for the United States during the period when our preferred short-term interest rate instrument is near zero. The Greenbook does not do this so far, as the key assumption is buy and hold for agency MBS with no change in purchases beyond those currently scheduled. That sounds to me like a suboptimal

policy. It should be a state-contingent policy, and I would like to see more along these lines. But I will reserve the rest of my comments on policy for tomorrow. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. Incoming data seem consistent with third-quarter and fourth-quarter GDP growth averaging roughly 3 percent—a welcome change after several consecutive quarters of decline. However, although I expect the economy to continue to recover, it will likely grow much more slowly than previous recoveries. I remain particularly concerned that, as the monetary and fiscal supports subside, there will be insufficient private spending to make much progress in labor markets. Growth in consumption and housing tend to be drivers in recoveries, and although both grew in the third quarter, they were supported by a variety of government programs, which are now in the process of winding down. As a result, I expect that, by the end of next year, unemployment will not be much lower than its current level, an outcome quite similar to the Greenbook forecast. I expect that, even by the end of 2012, the unemployment rate will be well above our estimate of the natural rate of unemployment.

The Greenbook assumes that credit conditions will ease, making credit more available for businesses and households. I am concerned that banking conditions over the next year may well deteriorate. For many banks, nonperforming loans are rising and rising faster than they are reserving for problem loans. Thus I expect that capital constraints will not ease over the next year. In fact, they might tighten.

Research at the Boston Fed has found that forecasters tend to underpredict unemployment when the percent of bank assets in banks with a poor CAMELS rating is elevated. Currently, the percent of bank assets in banks with a CAMELS rating of 3 or worse is high and climbing. Supporting this concern is the decline in lending in the Call Report data, which are continuing to

worsen. In fact, if one splits the lending between banks with a CAMELS rating of 1 or 2 with those of 3 or worse, the declines in lending are much larger at institutions experiencing problems, in part because they are likely shrinking to improve their capital ratios.

In light of the substantial excess capacity in the economy and given that credit is likely to remain constrained, I expect a gradual disinflation over the forecast period. The Greenbook forecast for core CPI and core PCE looks like an annual step function bounded below by 1 percent. My concern is that the inflation rate may not be bounded by 1 percent, and we may experience more disinflation than in the Greenbook forecast. In part, this is the result of forecast equations in Boston, but in part, it reflects the incoming data on wages, salaries, and benefits. The continued decline in the rate of growth of wages and salaries, especially in the context of rapid productivity growth, makes it quite unlikely that core inflation will reach my 2 percent target over the forecast period. As others noted at the last meeting, this outlook represents continued poor outcomes for both aspects of our dual mandate. I hope, but do not expect, that growth will be faster than most of us forecast. This would at least diminish the length of the other extended period, the period for which unemployment remains severely elevated.

In turn, while we can hope that anchored inflation expectations will keep inflation from falling more than the Greenbook envisions, even in a protracted period of significant excess capacity, I am concerned about the risks that expectations will move down or that they will not sufficiently offset the downward pressure from resource slack. While potential output may have fallen and the natural rate may have risen as a consequence of the crisis from which we are emerging, it is difficult to imagine a shift so dramatic as to materially change the size of these resource gaps. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, at our last meeting I portrayed our economic outlook from the Dallas perspective for the nation. It resembled a checkmark, as you may remember, with a snapback in the third and fourth quarters, in the 3-plus percent range, before settling into a lower-shaped grade on the elongated side of the checkmark. And you asked, I presume at the time only partially tongue in cheek, whether I was talking about that or a square root sign. So I have given that a great deal of thought in the interim. [Laughter] And I have explored with my colleagues and our business contacts the dynamics surrounding 2010, and that is what I want to talk about this afternoon.

Now, the near-term outlook seems to have improved measurably because of the stabilization of inventory investment and a leveling-out of consumer demand; the effects of the fiscal initiative, like “cash-for-clunkers” and the tax initiatives surrounding housing; and the strengthening of demand for U.S. exports. Certainly, the securities markets are healthier. The cost of money for those who have access to the securities markets—large businesses, not small businesses—has declined; levels have declined to very palatable levels.

Despite these short-term improvements, we are, in my view, very far from being out of the woods. I am going to reflect some of the comments that have been made by others, starting with President Lockhart. Wage and salary increases have fallen sharply. Household finances are still under severe strain. The deteriorating performance of consumer and CRE loans are still exerting new pressures on the financial system. And the plethora of new economic and regulatory initiatives is creating uncertainty among business decision makers as referred to by President Lockhart—uncertainty that appears to be retarding commitments to expansions of the workforce and to a commitment to cap-ex in the United States. I think that the Greenbook baseline forecast underestimates the continuing drag on the economy from damage to the

financial sector, deterioration and weakness in household cashflows, and uncertainty created by the new government initiatives. It also assumes, in my view, a too-rapid response of the unemployment rate through a reduction in the output gap when these reductions finally do begin to take hold. My survey of CEOs confirms some of this drag.

I do think it is important to footnote our research and that of the St. Louis Fed in publications from a couple of years ago that look at the last nine recessions and recoveries since 1954. They show that there is a strong correlation between the lengthy expansion before the recession and the degree of what we in Dallas call “jobfulness” of the ensuing recovery. That is, there is a lot of talk about a jobless recovery. That is really not the issue. The issue is how many jobs are generated by an ensuing recovery. Inefficiencies in the use of labor and other factors accumulate with time. The longer the time since the last recession, the greater the wave of reorganizations that follow. Reorganizations lead to a shedding of jobs within firms for an extended period of time during the correction or the recovery, and thus they create and contribute to the degree of jobfulness of that recovery.

This is confirmed by the behavioral patterns that I am hearing from my corporate contacts. These contacts continue to be pessimistic about the prospects for top-line growth for 2010, though they generally feel that revenues have bottomed out. They still plan to operate in a cost-containment mode. They report little—actually no—enthusiasm for expanding payrolls and cap-ex. This is very evident if you look at the large what I call logistics companies—Fluor; Bechtel; Kellogg, Brown & Root; and others—are actually beginning to let people go. Fluor’s CEO said that “domestic cap-ex is dead”—a pretty harsh statement. The most negative in terms of cap-ex was AT&T. It reports that it cut cap-ex 15 percent in 2009. I mention it because,

arguably, it is the largest single committer of cap-ex; roughly \$18 billion a year was budgeted for 2010. At the same time, it is budgeting a head-count cut of 12,000 employees in 2010.

The most positive I talked to, such as Texas Instruments, are budgeting some opportunistic cap-ex increases but plan no expansion of payrolls for the first half of the year, as they feel they can “continue to drive productivity higher.” The theme of squeezing greater productivity out of existing workers, which Dave Stockton referred to in our last meeting, and out of existing assets remains a constant across all of my CEO contacts. For example, Wal-Mart is planning on adding 11 million square feet of storage space in 2010. Yet because of IT and other efficiency boosters, it will not increase its associated head count above 1.4 million. It has an enormous employee base. That 1.4 million is actually down slightly in 2009 from 2008.

Regarding retail, the container ships that carry goods across the seas are operating below cost and continue to lose money. The rails that take those goods from the ports to their distribution points report stability but no discernible pickup in end demand. And my favorite metric, 178,000 freight cars, which would stretch 2,900 miles if laid end to end, and 28,000 locomotives have been laid up. Even though Buffett announced this morning that he was acquiring Burlington Northern, the CEO of Burlington Northern reports that, in the same words, “Christmas is dead.” These are not happy people that I talked to.

MR. PLOSSER. That’s like Philadelphia sports fans. [Laughter]

MR. FISHER. The retailers themselves report continued trends of smaller unit sales at lower prices and a shift to private labels and economy brands over a greater number of transactions, with volumes falling off as the month progresses. This is confirmed by MasterCard’s data, which show year-over-year growth of transactions but lower average tickets. Pricing power is nil. Again, going to Wal-Mart, it reports that food price deflation in its average

market basket is 0.8 percent year over year through this week and has had a third consecutive month of slight deflation in general merchandise. Inventories remain lean. They are being managed surgically. There is scant desire to build them overall. Stocking is being regeared to just-in-time response in demand for specific items. And I take note, with regard to retailers, my Bible, *Women's Wear Daily*, is reporting that retailers have started laying off workers in the month of October. That is very unusual for the fall season.

There are no complaints from the big boys about accessing the credit markets. Indeed, they report far more robust and better priced credit markets. AmeriCredit, which is a company I have started talking to, is interesting because it finances purchases of used automobiles and has 900,000 customers. It reports that, thanks to the TALF facility and the improved tone in the ABS market, its borrowing costs, for example, have been cut in half. So that is good news. But one reactionary theme has emerged as expected—at least as I would expect from the global operators. The combination of projected continued dollar weakness and low interest rates earned on excess cash held in dollars is incenting their treasurers to keep their cash balances abroad. That phenomenon should wax and wane over time.

Of less topical concern, and more disturbing to me, is the belief expressed by several that risk adjustments had better prospects for returns by investing cap-ex elsewhere. If you have read the *Wall Street Journal* recently—and we will have to check on the accuracy—it estimates that the S&P 500 companies are carrying \$1 trillion in cash on their balance sheets. The last time we had that kind of carry on the balance sheets was the 1960s. As I say, this is not your mother's 1960s. We live in a globalized world, and there are options for investing abroad. I am finding a good many CEOs and CFOs who are planning to commit to cap-ex and deploy that \$1 trillion in build-up in cash, plus additional cashflows, but very few—in fact, none out of the somewhat 30

that I spoke to—are planning to commit it here in the United States, unless there is greater clarity about future policy initiatives. The grape-shot approach that the Administration and the Congress have followed—announcing so many policy initiatives—is adding to uncertainty regarding progressive budgeting and planning for 2010. I might note that those who have spent some time actually interacting with Mr. Summers and others at the White House have come back more concerned than placated, and this concern persists. The bottom line is that there is a lot of hand-wringing and a great deal of hesitancy by my corporate contacts. I would say that the mood is a little less sour, but still a little dour, and, Mr. Chairman, these anecdotal soundings do nothing to change my checkmark-shaped forecast.

I continue to expect that, after this and the third quarter's 3 percent plus growth rates, we will settle in 2010 to a slower crawl, say to 2½ percent with unemployment hanging in at about 9.7 percent, which is I guess at the low end of our central tendency, as was presented earlier, and only in 2011, will growth ramp up to near and above 4 percent, with unemployment lingering above 8 percent well into 2012. Now, that said, these are still positive numbers, and they beg the question of whether we should begin de-accommodating earlier rather than later. That we will talk about tomorrow. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. In the Fifth District, the outlook hasn't changed much since our last meeting, so I will be brief. Both our manufacturing and services indexes slipped a bit in October, but the overall manufacturing index remains in positive territory. Reports from our directors and other contacts remain decidedly mixed. They say, for example, that many commercial real estate and banking markets continue to weaken, but they are also reporting more optimism in some sectors as well.



National economic reports also seem to remain mixed. We are making progress toward a recovery, but clearly not all segments of the economy are participating. Commercial construction continues to decline. It is likely to be a drag on growth for some time. People are losing jobs more rapidly than people are finding them. And as long as that is happening, average consumers' confidence in their income prospects is not likely to increase dramatically. Moreover, the contribution from the inventory swing to top-line growth is bound to fade at some point, as is the contribution from the stimulus.

Nevertheless, I find myself somewhat optimistic, though cautiously so. Consumer spending seems to be on a moderate upward trend, as does the housing market. Business investment in equipment and software, in the aggregate numbers, seems to have stabilized. And the end to the massive inventory liquidation will add at least somewhat to growth in the near term. At this point, the distress in commercial real estate seems likely to be relatively manageable for the banking system taken as a whole. And I think the decline in initial claims suggests that the overall job market is likely to bottom out reasonably soon. I also like the fact that inflation seems pretty quiet now.

In closing, let me just again note the passage in the Bluebook outlining potential sequences of statements going forward. We will talk more about policy tomorrow. I think it does make sense in this environment to look ahead, though, and to think about potential sequences of events and actions and see if we can't take them on board in crafting our statement today. I will also note the expansion of the "extended period" sentence introducing language that gives at least some suggestion of conditions under which we might start removing accommodation. It would be useful for us to spend a lot of time talking about what we think

those conditions might be and reaching a modest consensus on what we could put in the statement about that. I think that would be useful. That concludes my statement, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. Much as I indicated in our last meeting, the incoming data and reports from my business contacts continue to reflect an economy that is in the early stages of a modest recovery from a deep recession. Business activity is expanding, and we expect that GDP growth will average 3 to 3½ percent over the next year or so. However, my contacts are expressing a good deal of uncertainty regarding sales and order flows in the first half of 2010, once the current inventory cycle has largely run its course. In fact, although this is a swag to me, their reports feel more as though they expect a 2 percent growth rate than my own 2010 projection of 3½ percent.

On the positive side, businesses are certainly positioned to accelerate production when demand finally does improve, as it inevitably will. All industrial segments currently have more than enough capacity in place to meet their near-term expected sales and order flows. But like President Fisher, I heard too much commentary from my contacts suggesting that a lack of sustainable orders and sales developments could spark another wave of cutbacks, and I suppose your reports actually had those cutbacks in train. This seems like a serious threat. The positive third-quarter nonfinancial earnings reports were built on cost reductions, not revenue expansions. If fourth-quarter revenue growth continues to be modest, I suspect there is a real possibility of businesses attempting a repeat of the third quarter. For me, the odds seem tilted toward further risk aversion on the part of businesses in the first half of 2010.

The financial landscape surrounding bank credit also continues to be a headwind for the outlook. This is not a large issue for large, high-quality firms with direct access to capital

markets. They are able to obtain funding at spreads they consider to be closer to normal. But small and medium-sized companies that rely on bank credit continue to complain about onerous terms and an inadequate supply of borrowing options. Have you gone out and spoken to your local businesses and community bankers lately? Community and regional bankers respond that borrowers' credit quality is substantially worse than these businesses acknowledge, but they also say that the only way they can improve their capital ratios today is to shrink their assets, much as President Lacker was talking about. Bottom line, there continues to be a modest credit crunch for small and medium-sized businesses.

With regard to inflation, my outlook is unchanged from our last meeting. I continue to expect that core inflation will be flat to down a bit in 2010–11 but then move up to about 1¾ percent by 2012. As I discussed at length last time, substantial resource slack remains, and I suppose we will talk more about that at the December meeting, as I understand that agenda. Inflation expectations, as best I can judge, appear to be stable. Longer-dated measures of expectations derived from surveys, SPF forecasts for the TIPS market continue to run in their typical ranges, and the stability of these measures stands in contrast to strong countervailing forces. For me, the risk of an outsized medium-term increase in inflation seems small, especially an increase that threatens price stability. After all, core inflation is running currently well below my 2 percent guideline for price stability, and the medium-term prospects are for more of the same. Of course, we will need to listen intently for changing fundamentals that may alter these risk assessments. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I have been encouraged by the positive tone of recent economic data and continued signs of healing in the financial system. Improvements in

the housing sector are particularly welcome because they contribute both to economic growth and to mitigating the strains on the financial system. In the corporate bond market, risk spreads have come down, and that should support business investment for those corporations with access to market financing.

However, these encouraging signs are marred by the persistently weak labor market and stagnating wage income. In addition, my business contacts, too, report that bank credit conditions remain tight, and most have reined in capital spending, limiting expenditures to essential projects and those that promise immediate efficiency improvements. Finally, some of the recent strength in housing and auto purchases results from temporary government programs. Overall, the recovery is shaping up as a long, difficult slog for several reasons, including the extraordinary depth of the recession, the pressure on financial firms and households to repair their balance sheets, and the zero bound's considerable constraint on monetary policy.

I find myself in agreement with the Greenbook's assessment of the outlook for the economy, but this is not an outcome that I find at all satisfactory, not with unemployment rising to 10 percent this year and remaining above 8 percent through 2011 and inflation below desired levels as far as the eye can see. That said, the most frightening downside risks to this forecast have receded, and I now view the risks to the outlook as roughly balanced. Nevertheless, those risks are considerable.

On the upside, it is possible that consumers and businesses may be better able and more willing to spend than I have given them credit for. Over the past several months, we have seen improvements in a number of factors that pulled down consumer spending over the past year. These include uncertainty, consumer confidence, wealth, and credit availability. My staff has estimated consumption-forecasting models that include these variables, and their preferred

specification generates a forecast for PCE growth over the next four quarters of around 5 percent due to the improvement in those factors. Because the model misses other forces that are restraining consumer spending, I haven't adjusted my own baseline forecast up to nearly this extent, but this analysis does highlight for me a potential upside risk to the outlook similar to the V-shaped recovery discussed in the Greenbook.

Counterbalancing this upside risk are some significant downside risks. Some of the most worrisome ones also relate to consumer spending. In particular, the still-parlous state of household balance sheets could restrain consumption more than is incorporated in the Greenbook. In the past, I have highlighted the potential drag on consumer spending that we may see if households, to rebuild wealth and reduce leverage, boost their saving beyond the rather modest rebound incorporated in the Greenbook forecast. The United States was one of many countries to experience a massive increase in debt-to-income ratios followed by a severe housing bust and a retrenchment in consumption. Interestingly, cross-country evidence reveals a remarkably strong correlation between the increase of debt to income before the crisis and the decline in real consumption once the crisis began. I recognize that correlation does not necessarily imply causation, but this evidence provides a cautionary note that we may see abnormally low consumer spending for some time.

Another downside risk relates to the effect on the banking sector of further deterioration in the commercial real estate market. As many of you have mentioned, the prospects for commercial real estate have continued to deteriorate. We estimate that a significant share of banks in our District will fail over the next five years as a consequence. In fact, we are concerned that we now have a large number of already economically insolvent zombie banks whose troubles may have seriously impaired their ability to extend credit to the businesses in

their communities. In addition, lenders are commonly asking borrowers either to repay loans or to provide more equity to offset the erosion of real estate values. And given the very weak conditions in commercial real estate, this situation sets the stage for further increases in delinquencies and foreclosures. This process could generate an adverse feedback loop akin to that associated with residential real estate.

So in summary, the economic outlook remains very uncertain, but I think the tail risks and their associated costs have receded to the point that the risks for growth are now balanced.

Turning to inflation, the basic story has not changed much since our last meeting. I expect substantial slack in labor and goods markets to reduce core PCE price inflation from about 1½ percent this year to 1 percent in 2010 and 2011. The risks to this forecast are roughly balanced as well, but I am very concerned by the sharp deceleration we have seen in wages over the past year, and that is a development that is echoed by comments from my directors. They report that wages are flat or even slightly down, with no increases in sight.

Against this backdrop of substantial slack, a key factor putting a floor on the decline in the inflation rate is the public's confidence that we will do whatever it takes to bring the economy back from recession and keep inflation from falling too low. If we waiver from that pledge and tighten too soon, confidence in our commitment to economic recovery and price stability could be undermined, and that could be a recipe for an extended episode of disinflation or even deflation like the one Japan suffered through. A commitment to low and stable inflation involves defending the inflation objective on both the upside and the downside.

A concern in this regard is the fact that implied forward rates from fed funds futures contracts now suggest that market participants expect us to start raising rates as early as next spring. This assessment, however, depends critically on the assumption that term premiums and

fed funds futures contracts are very low by historical standards—about 1 basis point per month. This assumption seems questionable, given evidence that historically these term premiums appear to have varied considerably, and estimated risks and term premiums on a wide range of assets are now quite elevated.

My staff just recently completed the development of a new model of the term structure of Treasury yields and has used it to back out estimates of expected future short rates and the term premium on fed funds futures. They find that the term premium on fed funds futures has risen substantially and is currently much higher than 1 basis point per month. The implication, in contrast to the usual interpretation from futures, is that market participants currently expect a relatively shallow path for the funds rate similar to that in the Desk's primary dealer survey. These expectations exceed but are closer to my own views concerning the appropriate course of policy given what we now know. Of course, our policy decisions must depend on how economic developments actually unfold. But if we signal a tightening of policy before it is justified by the evolution of inflation and economic slack in the economy, perhaps partly out of concern that market participants see us as getting behind the curve, we could upset confidence in our policies, cause longer-term rates to rise, and end up in a more dangerous deflationary situation.

VICE CHAIRMAN DUDLEY. May I ask a question?

CHAIRMAN BERNANKE. Yes.

VICE CHAIRMAN DUDLEY. You said much more than 1 basis point. Can you give me a rough order of magnitude?

MS. YELLEN. I think the order of magnitude is about 3 or 4 basis points a month over the next year or two.

VICE CHAIRMAN DUDLEY. Okay. Thanks.

CHAIRMAN BERNANKE. Okay. Thank you. We are halfway through our go-round. It is 5:45. Maybe this is a good time to adjourn for today. We will start tomorrow at 9:00 a.m. There is a reception up in the cafeteria, followed by dinner.

[Meeting recessed]



**November 4, 2009—Morning Session**

CHAIRMAN BERNANKE. Good morning, everyone. Let me just start with a few items before we go into the rest of the go-round. Just, first, one data point: The ADP employment number this morning was minus 203,000, which the stock market viewed as a decent number. We have a small correction from yesterday's presentation. Brian.

MR. MADIGAN. Yes, Mr. Chairman. Yesterday we reported that TALF loans declined 10 percent over the intermeeting period because of repayments of TALF loans. That decline actually applied to TALF loans backed by ABS. We want to note that the decline in TALF loans backed by ABS was offset by an increase in TALF loans backed by CMBS. So, on balance, over the intermeeting period, TALF loans were flat.

CHAIRMAN BERNANKE. With your indulgence, also, as I said yesterday, we want to inquire to get the views of all members on some of the issues that were raised in the presentations yesterday. But I think there are a few noncontroversial items, and maybe we can just very quickly see if everybody is okay with them and just simplify the process. So let me just try to get a little feedback quickly.

The most number of issues were raised about the swap lines, and I think we need to have a full memorandum to you on those issues. Obviously, there were questions both about how to define the line, how to deal with the North American counterparties, and so on. So we will send you a memo on this and ask for a thoughtful response. If there is no objection, though, I think the staff would appreciate it if they could continue their informal nonbinding talks with the four major central banks. In any case, this is part of the process of winding down the existing lines. If there is no objection. Okay. That is the swap lines.

On the material relating to various lending programs, we mentioned that we plan to consider shortening the maximum maturity of primary credit loans to 28 days. That would be announced soon and presumably be effective after year-end. I didn't hear any commentary on that. Was anyone concerned about that? Seeing none—though if you do have any comments, by all means let us know in the next week or so.

The other point that was raised was that the staff wanted input on publishing a *Federal Register* notice on the term deposits, which would ask for input on how to structure those term deposits. Of course, again, this is nonbinding. It is just for information. I propose that we would circulate the proposed language to the Committee and ask for any feedback on that. But we will move ahead with developing a notice and then circulating that for any concerns.

Okay. Finally, on the other issues relating to the reverse repos and so on—the staff suggested prioritizing reverse repos and term deposits and putting RCAs, the collateralized accounts, on hold for the time being. I didn't hear any objection to that. Are there any concerns about that? Let me say for myself that putting it on hold doesn't mean killing it. I think we ought to maintain all of our options. The RCAs are meant to address a specific issue that we had earlier, which was the GSEs and the problems that their excess liquidity might cause for us in managing the short-term interest rate. But this is just a prioritization for the short term. Any concerns?

Okay. And on the reverse repos, there was some discussion of who would be the counterparties. I think what we heard from this were a couple of things. First, in order to get this going soon, we should probably prioritize the high-volume counterparties as the first step. But, second, we should plan to include a broader set of counterparties, and we should be developing criteria for doing that. Governor Warsh mentioned using the private sector as one

particular possibility that we should explore. Assuming that we are going to go forward with this today, which I believe we want to, we would want to continue our testing process. I promised yesterday that we wouldn't make final decisions, so if anybody is uncomfortable with it or would just like to have more time, please say so. Are those things okay?

MR. EVANS. Mr. Chairman?

CHAIRMAN BERNANKE. Yes.

MR. EVANS. Just so I can understand this a little more clearly, where do the money market mutual funds enter into that prioritization? That seems to be where a large pool of funds might come from.

CHAIRMAN BERNANKE. I think that they would be a high priority. Those are the major sources of funding. But I guess the question would be, Do we go first to the Fidelitys and so on? At some point we should try to make sure that any money market mutual fund with an interest should have access either directly or indirectly. But in the interest of monetary policy implementation in the very short run, we would start with the larger ones.

MR. EVANS. I agree. Thank you.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. Mr. Chairman?

CHAIRMAN BERNANKE. All right. Yes, President Lacker.

MR. LACKER. So we are not going down this path; it is just testing still? We are not making a commitment to any particular volume of reverse repurchases?

CHAIRMAN BERNANKE. Absolutely not. This is just making sure we have a working tool.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. Is everybody okay? All right. Thank you very much. We are ready to continue where we left off on the go-round. President Hoenig, I think that you are next.

MR. HOENIG. Thank you, Mr. Chairman. Conditions in our District and my views on the outlook haven't changed a lot since last time. On the region, I think the operative words there are "moderately improve," and you can kind of go through that. We have seen our manufacturing moderately improve, driven by new orders and some orientation toward exports. Actually, there has been some hiring in manufacturing, but that is mixed. Of course, you get some hiring, and you get some layoffs. So in a sense, that is pretty stable but not improving dramatically at all. Housing has also improved. How much that is related to the homebuyers' credit is not clear, but we do see improvement. Our big downside in the region is commercial real estate, and that is going to remain so for at least a couple of years, we think. Our energy sector has also moderately improved, oil particularly. Our natural gas, which is a big part of it, still has plenty of supply; depending on the season, that will be effective. But one thing about the energy industry is that they have been very able, in terms of current independence, to renegotiate their lines; they have had no trouble getting those renewed. Our labor markets, on balance, are still weak, but they are not declining, as indicated perhaps by this morning's numbers. One other thing I would comment on. Our larger companies do have fairly sizable cash balances. For cap-ex, they are talking about maintaining and spending to maintain, but not expanding, at this point as well.

On the national economy, our outlook for GDP is not unlike that of the Greenbook. We have a little more modest growth in 2010, and then it picks up. We also have an assumption in there where policy is less accommodating sooner. Still, we see modest growth going forward

and, in that environment, a very modest pickup in inflation over the next couple of years. And other than that, things are stable, moving forward, and I will leave it at that for now. Thank you.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. While I am pleased by the output gains that the economy posted last quarter, I do remain concerned about how the economy will develop over the coming year. So in preparation for this meeting, I focused my discussions with my business contacts on the question, How sustainable are the third-quarter growth figures?

Despite many signs that housing prices and sales of existing homes are stabilizing, home builders in my District are still largely anticipating a bleak outlook for 2010. They noted that their interest costs for holding land continue to rise, even while the value of that land has sagged. Small builders reported that the increase in housing starts that we saw in the third quarter is due in large part to the fact that big builders are working off land inventories and then selling their homes at fire-sale prices. These smaller builders do not see the gains that we saw in housing starts as sustainable.

The commercial real estate developers, realtors, and investors fundamentally view their circumstances as dire, and they see a lot more pain ahead. I am not expecting commercial construction to add to GDP next year, but beyond that it is going to take a lot of skill by many people to resolve the commercial real estate problems in an orderly way. The problems in the commercial real estate sector add another dimension of uncertainty to my outlook.

Although consumption figures picked up notably in the third quarter, many of my contacts stressed the continuing effects of weakened household balance sheets on consumer spending. A national apparel and personal care retailer confirmed this perspective by noting that households are turning from credit cards to debit cards to rein in their spending.

An auto insurer in my District reported that households are registering and insuring fewer automobiles as households try to reduce their expenses. The insurer also reported that more customers stopped making payments after they received confirmation of having insurance or proof of insurance. Demands for these services are lower, but this insurer emphasized that the patterns that he is seeing reflect general ongoing stress that is evident in household balance sheets. The progress that is evident in consumer spending in the third quarter, seems unlikely to be sustained without notable progress on employment.

I think that reports like these make it hard to extrapolate forward the full strength in the third-quarter growth rate. So while my forecast has good growth in the third quarter, which I think was aided by many government interventions, my expectations for the fourth quarter and for next year are for less growth than is in the Greenbook projection. In my outlook, the recovery does not build momentum until the second half of 2010. The restraints on economic growth in my projections stem primarily from the continued weakness in both residential and commercial construction and a slow recovery in consumer spending. Despite the weaker output path that I have in my projection, my unemployment rate does look very close to the Greenbook's.

My projection for inflation hasn't changed materially in response to the recent good news in output. Core inflation rates continue to sag despite stable inflation expectations. The median CPI has declined over the past several months, which points to the influence that the economic slack is having on current pricing. I appreciate that others correctly point out that output gaps have not always been reliable in forecasting inflation. But the compensation data show plenty of evidence that economic slack is currently affecting our economy. Indeed, based on the rate of productivity growth that I expect we will see posted for the third quarter, it seems that unit labor

costs have fallen sharply. Fortunately, inflation expectations haven't declined, which helped to prevent some of the downward pressure that we are seeing from converting into sharper deflation in consumer prices. Still, my outlook for core PCE inflation is that it will dip below 1.5 percent in 2010 and only gradually increase toward 2 percent in 2011. In sum, I view the risks around my outlook as balanced. The risks to my outlook for inflation remain balanced because I think that shifting inflation expectations could go in either direction. Even if we have seen stable inflation expectations to date, we could, as President Bullard pointed out in his memo, experience an expectation shock in this highly unusual economic environment.

On output growth, I have shifted my balance of risks from downside to balanced. I still harbor the concern that the momentum we are currently seeing may fade more quickly than I currently have in my outlook. But the strength in the third-quarter data also shows that surprises to the upside are possible. Notably, export growth has been a surprise in the third quarter, and stronger world growth, as Nathan pointed out yesterday, would boost my outlook considerably. And as the Greenbook points out, we just don't have a lot of experience with systemic financial shocks, and perhaps the economy will prove to be more resilient to these shocks next year than I currently expect. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I want to begin by thanking the Chairman for his generous introduction yesterday. It is an incredible honor to be a participant in this discussion, and I am looking forward to working with all of you, both today and in the meetings to come.

In the Ninth District, real economic activity is stable but subdued. Unemployment did fall considerably in Minnesota from August to September, from 8 percent to 7.3 percent, and

Minnesota has a majority of the population in the Ninth District. However, unemployment remained elevated in the rest of the District, although I should say that unemployment has been low in the Ninth District relative to national averages elsewhere, except in the upper peninsula of Michigan.

The information from our directors about their local communities is consistent with this mixed picture. Our directors report that our consumers remain cautious about spending. One reported that shipping was dormant in Duluth through much of the summer before picking up in late September, which, if you are familiar with Duluth, you know is very late in the shipping season for them. The directors generally agreed that things had stopped getting worse, but they also agreed that they did not actually see them getting that much better.

Nationally, an advance estimate of third-quarter GDP growth was better than expected at 3½ percent. This increase followed four quarters of negative growth. As a consequence, output is well below its trend levels, if we assume that trend grows at 3 percent per year beginning in the fourth quarter of 2007. Of course, 2007 represents a peak, so you may not want to draw your trend line from that point. Given that, it is worth noting that output remains well below a 3 percent trend line that begins at the end of the 2000–01 recession. The Greenbook predicts that GDP will rise 3.9 percent per year over the next two years. Based on our Minneapolis model's forecast, I believe that prediction is optimistic, if anything. But even if it were right, GDP will be well below this 2000–01 trend line of 3 percent through the end of 2011. Of course, it is an important question whether this discrepancy is attributable to a fall in the efficient level of output or to the effect of price and wage rigidities. I will leave that question open. Unemployment has stabilized in the past three months. However, it remains extremely high by historical standards



at nearly 10 percent. I agree with the Greenbook that it will remain elevated through 2011. The employment–population ratio remains at a 25-year low.

There is good news. Inflation remains low. Inflation expectations, as measured by Blue Chip forecasts or TIPS spreads, also remain low. However, I am concerned about a tail risk in inflation. The size of government debt held in the private sector has increased over 30 percent in the past two years. There is a positive probability that fiscal imbalances of this kind will give rise to significant inflationary pressures. The news is also good in financial markets. Spreads in the interbank lending market have tightened considerably. The spread between jumbo mortgage loans and conforming mortgage loans remains elevated but has fallen sharply since the first part of the year. House prices are stabilizing and, if you believe the Case–Shiller numbers, may actually be rising in much of the country.

So, overall, I would say the real side of the economy is recovering somewhat. The trend in GDP is well below historical norms, unemployment is well above historical norms, and this characterization seems likely to continue well into 2011. Inflation is under control and is expected to remain so, although the size of the government debt remains a possible large risk. Financial markets continue to improve, and I see them as being much stronger than a year ago. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. I'm sorry, I don't want to put you on the spot, but I was just interested in your view on the relationship of government debt to inflation. Do you take the fiscal theory of the price level as related here? Monetization? Excess demand? I was just curious.

MR. KOCHERLAKOTA. Basically, when you have large government debt, as you know, there are going to be two ways to pay it off. There is a third way, which is not to pay it

off. [Laughter] But let's keep to the two ways of paying it off. One is to pay it off by real tax collections, and the other way is to monetize. I think private markets will be concerned about whether or not we will be monetizing, and that will influence inflation expectations and the realization of inflation.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you. The economy appears to be evolving very close to what we expected. Real GDP is expanding at a moderate rate, but some of the supportive elements, such as the swing in the inventory cycle and special programs like “cash-for-clunkers” and the first-time homebuyer tax credit, are temporary and thus may exaggerate the underlying strength of the economy. At the same time, potential retardants, such as the decline in household net worth, the high level of household indebtedness, and the constraints on credit availability, do not appear to have subsided since the last meeting. Financial conditions, broadly defined, have not changed significantly either. Generally, I would think as the economy improves that we would actually expect to see an easing of financial conditions. So the fact that that hasn't happened over the intermeeting period is slightly disturbing.

The inflation outlook has not changed materially either. The core PCE deflator has risen only 1.3 percent over the past year, down more than a percentage point from a year ago. Moreover, cost pressures are very subdued, with the employment cost index for civilian workers rising only 1½ percent over the past four quarters. And the high unemployment rate implies to me that these wage pressures are likely to be muted for a long time. Modest growth in compensation per hour, combined with the spike in productivity growth, means that unit labor costs are falling quite rapidly. Thus, I think we are where we were at the last FOMC meeting—many quarters away from any need to tighten monetary policy.

That said, we should recognize that we are already tightening on at least two dimensions. First, a number of government support programs are ending, and we are tightening the terms of our liquidity programs. Second, the Treasury purchase program has been completed, and the agency debt and agency MBS purchases are on track to taper off by the end of the first quarter. That underscores the need for caution at this moment.

With respect to the agency MBS purchase program, I am where Brian Sack is on this. I expect that the option-adjusted spread will widen somewhat going forward. It is difficult to sort out the timing of this widening because it depends on the relative weight one assigns to stock versus flow effects. But I suspect that traders will view the current spread level as unsustainable, causing them to go short agency MBS or short to spread, which would be long Treasuries and short agency MBS, on an anticipation of a backup in the yield or spread with the end of the program. I am not sure when this process will start, but I would not be surprised at all if we did not see some widening in the spread by our January meeting. Of course, if that happens, that is likely to lead to somewhat higher mortgage rates, and that will inhibit the nation's housing recovery.

A few comments on President Bullard's note on output gaps. First, I think it is great that he is writing memos like that and circulating them to the rest of the Committee. I think it is really important to understand where we agree and where we differ, and I think these memos help to sharpen that point. That said, I do find it unconvincing that the output gap, after the 1981-82 recession, could be less than 1 percentage point, as shown in figure 4 of his memo. Theoretical models maybe can generate that result, but that makes me doubt the theoretical models, not take that figure in hand. It would imply that the NAIRU moved virtually hand in hand with the rise in the actual unemployment rate, and I think that is quite unlikely.

Second, I continue to be disturbed, in President Bullard's framework, about, What is the true underlying model? What drives short- and medium-term inflation expectations? When you commented yesterday, you said it's the Fed's credibility, but then what drives the Fed's credibility? And how do we close the model? I certainly agree that inflation expectations are very important. I think we all agree on that. But if those expectations depend in part on current and expected future output gaps, then you can't completely ignore the output gap.

Third, in the memo President Bullard suggested that the housing bubble could be interpreted as "a large upward deviation from the normal or potential level of output." The idea is that real GDP overshoots potential during the boom by roughly the amount of the unsustainable output in housing. I don't really understand that. If housing was a bubble and we produced too much housing, this does not mean that potential output was much lower. We could have produced things other than housing. We presumably had the capacity to move around resources, labor and capital, to do so. So the housing bubble, to my mind, did not materially change potential output, only the composition of actual output. That is how I would look at it.

Fourth, the behavior of core inflation measures following recessions is pretty compelling. In the United States, on average, the core inflation rate has fallen about 2 percentage points during the first 18 months of an economic expansion. If we take the worst-case cycle from our perspective of inflation, core inflation rose about ½ percentage point. So there is a lot of variance cycle to cycle, but overall the evidence is pretty compelling that core inflation tends to fall during the early phases of economic expansions.

In general, I think the empirical evidence for output gaps and inflation is less than decisive for some very obvious reasons. One, we don't have many business cycles to study. Yes, there are many years of data, but not many business cycles. Second, we measure inflation

and output gaps poorly. And, third, there is oftentimes not much variability in our measures of core inflation and output gaps. That is certainly true of the last couple of cycles. Thus, it is not surprising to me that it is hard to find a robust empirical relationship. But that is different from saying that there isn't a relationship. I am pretty confident now that inflation is low and the output gap is high. Thus, I expect the historical experience to hold; during early recovery periods, core inflation is more likely to fall than to rise. Is that absolutely certain? Of course not. We just don't have enough data to be absolutely confident. And other factors that influence inflation expectations could derail such an outcome, but we have to go with what we know now. If it turns out that this cycle starts to evolve very differently, then we will have to adjust in a timely manner.

My perspective is simple. The unemployment rate is very high; core inflation is low. Given our dual mandate and the stability of long-term inflation expectations, this implies that our focus should be on getting the unemployment rate down and that this is likely to be our focus for an extended period. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Incoming data on economic activity seem consistent with not only an expanding economy but also one that will strengthen gradually with a slow decline in unemployment from very elevated levels. So although my forecast has strengthened since June, it still has, as many of you have remarked, the same basic contour that it has had for some time—President Fisher's checkmark contour.

I think the good news was that final demand, if anything, was a bit stronger than expected, reinforcing the impression that the upturn is underpinned by more than an inventory correction with consumption outside autos and orders for capital equipment moving higher. But as I noted, there

are reasons for sticking with the outlook for only a gradual strengthening. The surprise in consumption came at the expense of a sharper-than-expected fall in the saving rate, which does not seem sustainable or repeatable. I agree with the staff forecast that the saving rate is likely to rise over coming quarters as households adjust to lower wealth, uncertain job prospects, and less available credit.

Payrolls and initial claims suggest that the job market remains quite weak. The effects of this on incomes and on confidence are likely to be felt for some time. There is no evidence yet that other forms of spending are likely to expand rapidly enough to fill the gap left by lower levels of consumption out of income for some time. The housing market looks better, but starts and permits have only leveled out, and vacancy rates remain quite high. High vacancy rates and financial constraints will weigh on nonresidential construction for some time. Restraint on the growth of consumption along with excess capacity will hold down accelerator effects on business investment. And net exports were still a negative contributor to GDP in the third quarter despite the pickup in growth abroad.

Financial market developments over the intermeeting period also continue to point to financial constraints on the increase in demand. As Dave Stockton noted, a sustained improvement in financial markets—including the greater availability of bank credit, a further decline in credit-risk premiums, and a rise in equity prices—are important preconditions for even the gradual strengthening of demand in the Greenbook forecast. Most especially, bank credit remains quite tight. On the quantity side, bank lending continued to decline very rapidly, and growth in the monetary aggregates was modest. A good deal of the drop in bank loans undoubtedly reflects demand weakness, but the Senior Loan Officer Opinion Survey indicated that banks continue to cut back on all kinds of credit lines, and they continue to tighten standards, albeit by a smaller plurality

than before. And on the price side of bank credit, a considerable margin of banks reported a further tightening of spreads on business loans. Many banks continue to struggle with loan losses, and it will take some time before they rebuild capital and become more comfortable increasing the supply of credit.

In securities markets, the pace of improvement slowed amid questions about the strength of the recovery. The decline in equity prices in the past two weeks, as well as the small rebound in the dollar and a decline in some commodity prices, suggests to me a healthy appreciation of the likely gradual pickup in the economy and the risks around it. But it also implies a slowing in the financial market impetus to recovery.

Although I'm at the upper end of the central tendency on growth, I find myself at the lower end of the central tendencies on inflation. I had core inflation drifting down further over the next two years to 1 percent, reflecting the effects of a lot of slack in utilization of capital and labor resources. Like everyone else, I'm looking forward to the discussion in December. I agree that slack and output gaps are hard to measure. Potential supply could be and probably is being held down by some of the frictions associated with the required reallocation of capital and labor resources as construction, financial, and consumer goods and services sectors shrink, while net exports and business investments slowly fill the gap. And financial constraints might inhibit the ability of small businesses—in particular, in sectors that are benefiting from shifts in demand—from expanding plant and staffing. But the surprising strength in productivity suggests that firms are able to do more with less, and that provides a countervailing boost to potential GDP.

Data on core inflation over the intermeeting period continued to come in quite damped, and we have experienced a percentage point or more of core disinflation over the past year, while all of these adverse influences on potential supply were already in play. As a number of you have

remarked, the growth in labor compensation is decelerating quite remarkably. All of this has occurred while inflation expectations have been very well anchored. Stable expectations will mute the effect of slack, will flatten the Phillips curve, but something has been pressuring inflation lower while expectations have been stable, and I infer that it is primarily a large margin of slack—of excess supply. Furthermore, I confess to being one of the two people who saw the balance of risks around my inflation forecast as tilted to the downside. If energy prices follow the futures market path, actual inflation will be quite low for a long time, and expectations could become unanchored but on the downside.

I recognize that there are upside risks on the inflation forecast as well. To my mind, they are primarily around a feedback loop from the dollar to commodity prices to headline inflation to inflation expectations. Some decline in the dollar is a necessary part of the rebalancing of global demand. We need some expenditure-shifting to get that rebalancing, although it would be preferable if the rising currencies were among the surplus countries of Asia. And commodity prices should rise some as the global economy recuperates, especially with the recovery led by resource-using economies of Asia. But the risk is that a loss of confidence in the dollar and its purchasing power becomes self-reinforcing feedback on inflation expectations. We do not see this yet. I don't expect it in response to moderate declines in the dollar and the rise in raw materials prices, but it is a risk that we will need to be especially attentive to. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. As I said when we last met, I expected more strength in the next couple of quarters than in the next couple of years, and I still believe that. I'm skeptical of linear improvements that are outlined in the Greenbook in a world that looks as though it is filled with all sorts of nonlinear risks. The extraordinary stimulus from public authorities—



fiscal, monetary, and other—and the even more extraordinary run in financial markets have substantially improved the likely arithmetic of GDP in the next couple of quarters. But if we don't see more-impressive signs of improved income and jobs and more impressive signs of business fixed investment—particularly now when market-induced stimulus, government-induced stimulus, and a cyclical improvement in the economy are peaking—then I have to admit to being more cautious about growth prospects in the second half of 2010 and in 2011.

Let me spend a little time on the real economy and then turn to financial markets and financial institutions and maybe a last word on inflation. On the real economy, obviously, as many of you have discussed, the data are mixed but trending toward recovering, but it still looks like a subpar recovery. I continue to think that we should be seeing more-substantial improvement sooner in order to get more comfortable that we have a durable recovery at hand. I am not as persuaded as the Greenbook forecast suggests that the handoff from the public sector to the private sector will happen as seamlessly or as steadily as predicted. Now, there is certainly plenty of good news that we can talk about. The Fortune 500 nonfinancials are in great shape: strong balance sheets; better position coming out of this recession than in the last two, for certain; highly productive, significant operating leverage; and still awaiting top-line growth, and if it comes, that would have a huge impact on their willingness to invest.

The ISM and other surveys show manufacturing improving with inventories rebuilding. But on the other side, real incomes are still declining even as PCE was bolstered by car and housing subsidies. The job engine to me looks stalled or maybe worse, and global trade appears to me still years away from reaching its prior peak. And we are still seeing constrained credit availability to small businesses and households, as Governor Kohn talked about, and little impetus for increases in business fixed investment.

It is normally the case that improvements in share prices drive CEOs to be much more forward leaning on cap-ex than they appear to be at the present time. And now when I talk about financial markets, I would suggest that the Greenbook supposition, which I think is right—which is that further improvements in the real economy are contingent on further improvements in financial markets—looks to me to be anything but a sure bet. I think the schizophrenia that we have seen in the markets, particularly in the last couple of weeks, with preoccupation with one issue one day and with another issue the next day reminds us that the revaluation process of every asset everywhere in the world is still incomplete. I try not to over-read or under-read what financial markets have been telling us in the last couple of weeks. One over-read of this new move down in markets and increased volatility is that, “Oh, you know, the markets got ahead of themselves and there is a big correction in front of us.” To under-read it would say, “Well, markets go up and markets go down, and there’s not much to worry about.”

My own sense is that we’re probably in a new phase in financial market developments. Financial market improvements from here will be more driven by policy and by economic fundamentals and less driven by the kind of asset reallocations that we’ve seen and the catching-up by active investors who are trying to catch up with indexes. The one-way upward move by financial markets from March lows in all likelihood looks substantially complete both in the United States and elsewhere. It is hard to predict where these markets will go, but I would suggest that real economic fundamentals and the contour of public policies will probably knock these markets around for a while, and so I am hesitant to suggest that the next several months will look as satisfying as the last several months in these markets.

At the time of the last FOMC, I said that markets were nondistinguishing—they were willing to fund virtually all issuers throughout the world—that the openness in these markets was

remarkable, and that those issuers that took advantage would be quite fortunate. I said that others will regret standing on the sidelines. From the March lows until the last FOMC meeting, we saw a \$4 trillion increase in the value of publicly traded U.S. assets. That is of significant consequence to the real economy and could help and is helping offset weak incomes. I think the next \$4 trillion will be a lot harder to come by.

We can no longer count on the “melting-up” in these markets to do the hard work of helping repair balance sheets of financial institutions and households. Still, in all likelihood in this move up, the first \$4 trillion is likely to stick around for a while. So I don’t want to suggest that we’re not going to get ongoing benefits, but I do think that the financial market trajectory is likely to get tougher. I am a little disappointed that this move in these asset prices hasn’t done more to help the real economy get back on its front foot. I’m a little disappointed that it hasn’t helped durable final demand. And I think the fourth-quarter data will be very instructive. If the fourth-quarter GDP arithmetic still shows an incredible reliance on government-induced stimulus, even after this rally, then again, I hesitate about how optimistic to be on projections in the outyears.

The haves and have-nots in financial markets are likely to be more obvious in the weeks and months ahead. As Brian Sack said in his introduction, this change in market sentiment, this retrenchment, is probably healthy for the long term; but the increasing gloss of asset values will wear thin, and broken business models and underachievement by many firms may be met with a skeptical, even punitive, eye by market participants. And we are likely to see a change in correlation among asset prices that was confounding many of us when we last met.

Let me turn finally to financial institutions and then a brief word on inflation. The global financial architecture remains unclear. Impediments to financial institutions’ getting back to the business of banking are meaningful. What we are seeing in some parts of the world, particularly

Europe and the United Kingdom, are discussions both at the behest of governments and in some cases at the behest of shareholders to decide whether some of these large financial institutions should be broken up. In the United States, neither markets nor most government actors are demanding resizing or rescoping of large financial institutions. But as we approach an even-numbered year, an election year in Washington, I will be surprised if there isn't more scrutiny around that deconglomeration hypothesis. In the near term, equity and credit markets are likely to be more distinguishing, as I mentioned, and there is great interest in providing capital to these financial institutions so long as the capital is in the last round. The success of U.S. banks in funding themselves is really about convincing markets that this is the last equity raise they'll need to do, and the extent to which they can pull that off or not strikes me as more challenging than it was six weeks ago.

On the inflation front, the weakness on the real side of the economy is certainly driving wages down, is certainly having an impact on what we're seeing from our inflation readings, both recent and going forward. This change in wage-price levels, however, may be partially offset by relatively higher import prices, including year-over-year increases in energy and other commodities. I think we have a natural experiment that is likely to confront us in the upcoming couple of quarters, and it will be important to gauge whether changes in headline prices due in part to rises in energy and other commodity costs at a time of large central bank balances, at a time of an unsustainable fiscal picture, and at a time of debt limit discussions that are likely to preoccupy the floor of the U.S. Senate, whether all of that in a natural experiment finds its way into core prices or affects broader measures of inflation expectations. So I think we might have a good look on whether headline prices somehow converge to core or whether core drifts toward headline. I think that will be an

interesting point of contact for us to think about the risks to the inflation outlook going forward.

Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. None of the bankers that I talked with were particularly optimistic, but as I went back and looked at all of the responses together, I was actually a bit more optimistic. [Laughter] Buried in these bleak third-quarter earnings were actually a couple of positives. The margins are higher because of lower deposit rates and better loan spreads, they're earning record mortgage-loan originations, and expense-reduction efforts are beginning to pay off. All of these positives are being offset by high credit costs and reserve levels that are overshadowing their positive nature. They describe their credit cost as approaching a plateau rather than a peak. Auto loans are actually looking quite a bit stronger. Credit card losses are stabilizing but will remain at high levels. They believe they are three to six months away from a slowdown in new mortgage and home equity delinquencies with four to six months after that to begin actually working the levels down. But they are cautiously optimistic that the ultimate losses will not be as high as the more stressed scenarios had indicated, and most of the built-in nonaccruals are now coming from income-producing real estate, which take longer to work out but tend to have less severity of loss.

The residential real estate market is actually showing real signs of firming. Inventories are in better shape, approaching the six-month level, which indicates balance, the existing home inventories at 7¼ months' supply, and new home inventories at 7½ months. Supplies are probably even more sharply stratified by price point. One bank had looked at it in its market. Houses over \$1 million had a 5-year supply; from \$500,000 to \$1 million, a 30-month supply; and under

\$500,000, a 5-month supply. And while the price points will be different in different markets, I think the fundamentals are conceptually the same.

Property is moving when it comes into OREO. Current buyers are both investors and owner-occupiers with an estimate of first-time homebuyers making up about 20 percent. The investors who are buying judge the bottom of the market by time on the market, number of offers, and the sales price to the asking price, and all of these are currently signaling a bottom. I heard some complaints when I was in California that the banks were taking cash offers at less than offers from owner-occupiers who needed financing. One large servicer said that loan investors did originally have a preference for cash offers because of concerns about the loans closing; but this is changing, and now they're looking for the best offer.

The Greenbook forecast for house prices includes more price softening in anticipation of a spike in foreclosure inventories, but there is at least the possibility that we won't see a spike, just a steady supply. The pace of foreclosure activity actually varies by firms, given their modification strategies and their capabilities. It also varies based on the foreclosure laws in various geographies, with judicial foreclosure states lagging, and it varies based on market. Some of the hardest-hit markets are actually seeing the most firming, with Florida being the clear outlier and likely to be a black hole for some time to come.

Even residential construction is improving. The large regionals have worked their balances down 70 to 80 percent. Properties that had no buyers before are now moving. There are some reports of better pricing and other reports of stable pricing but more buyers. And whereas the last time there were a couple of reports of lot sales, now there are widespread reports of lot sales for entry-level product.

The income-producing property front is still deteriorating, with a notable recent deterioration in multifamily. They expect higher nonperformers but lower loss severity and point out that, when you have cash flow, you at least have options for workout. Also, the distress is due to economic fundamentals rather than overbuilding. The new CRE guidance will help, but in my opinion it does not go far enough. The classification analysis does start with determination of debt-service capability rather than collateral value; requires a write-down of the loan to the collateral value less selling expenses whenever the debt service is insufficient, but only when it is insufficient; and recognizes that cash flow from income-producing properties might fully support some portion of the loan. But it permits the portion to be graded as a pass only if the bank has formally restructured the loan into two parts, a good loan and a bad loan. I believe that banks would be more willing to make new loans and renew or extend existing loans if the classification system were driven by underlying economics rather than the contractual terms of the loans.

I asked all the banks about their excess reserve positions. All were net positive cash, and most were happy with the current level and proud of their efforts to get there. When asked what actions they might take if they wanted to reduce the position, they said that they would bid less for deposits, and several would reduce public funds. Some would buy agency and agency MBS, although several expressed concern about what happens when we exit, and none would grow loans. Several expressed uncertainty about the level of demand deposits when the FDIC unlimited guaranty expires, and most are intentionally shrinking the bank in the face of uncertainty about capital.

Capital is available, but expensive, with larger banks generally available, midsize banks on and off, and small banks very difficult. One bank had raised part of the money needed for TARP repayment and elected to keep the rest of their TARP funds rather than take the extreme level of

dilution it would require to fully repay. They are uncertain about what future capital requirements might look like and uncertain about what will be likely to count as capital. And while they are concerned about credit risk, their willingness to make new loans is driven at least in part by regulatory considerations. They'll take only pristine credits, customers that they want for the long term, not solving immediate problems. They're looking for relationships, and they're particularly concerned about examiner downgrades. You could have an argument about whether the examiners are being overly tough or the bankers are being overly optimistic, but there does appear to be a disconnect in their view of the appropriate loan grades. In the SNC portfolio, the staff reported that the banks and examiners generally identified the same loans as having weaknesses, but the examiners graded those loans lower than the banks. The investment banks had much higher downgrades, with the examiners feeling that they could estimate credit agency ratings much more accurately than exam ratings.

Faced with the new credit card law, they had a sharp decline in solicitations. The "go to" rate on new solicitations is 300 basis points in relation to prime, higher than it was before the new law, although the reduction in available credit may be misleading. One bank insisted that most were inactive cards. Smaller banks are concerned about the new HOEPA rules, with 6½ percent now a high-priced loan, which means they can't do balloon payments and they have no capability of escrowing taxes and insurance. So they are reporting that they're going to have to quit making those loans. In summary, we could see improvement in loan performance next year, but we are a very long way off from a recovery in bank lending. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. First, let me say that I'll be brief. Second, let me say that I mean it. [Laughter] I think little has changed on net since our last meeting, and this



unremarkable story strikes me as itself unremarkable because the outlook for moderate growth in the next few quarters has been relatively clear for a while. As to the second half of 2010 and beyond, though, while the forecast of modestly to moderately above-trend growth remains eminently plausible, there is considerable uncertainty. Factors such as the waning of stimulus effects, the continued drag on consumption engendered by high unemployment, and the travails of the commercial real estate market could well lead to a more sluggish pace of growth. On the other hand, as I've said at each of the last couple of meetings, despite these significant downside risks, I don't discount entirely the possibility of a more rapid pace of recovery.

Turning to price stability, the story is similar: substantial clarity for the near-to-medium term with low levels of inflation and then more uncertainty thereafter. I have my doubts that an unwelcome level of inflation could take hold in the absence of either a rapid acceleration in job growth that got us at least within shouting distance of full employment or a big, exogenous shock in the form of much higher commodity prices. But I acknowledge that the unusual characteristics of a recession following a financial crisis and the consequent policy responses may make past experience less than dispositive. And I would add that I am less convinced than I would like to be that recent exchange rate developments are wholly benign. I think they bear watching.

To conclude by referring to our statutory dual mandate, maximum employment is not remotely in sight. Concerns about deflation have substantially receded, though they have not disappeared entirely. Concerns about inflation seem at this point to be based more on anticipation than on observation. But I'm happy to join others in continuing to keep watch. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much, and thanks to everybody for their valuable input. Let me make an effort to summarize the discussions I heard at least, and then I'll make a few additional comments.

Participants noted the recent, more-positive economic data. After four quarters of decline, we have seen positive economic growth again, as had been anticipated, and moderate GDP growth should continue in the fourth quarter. Factors contributing to growth in the near term include the ongoing slowdown in the pace of inventory decumulation, fiscal actions to support autos and housing, and some signs of life in consumer spending.

However, as many one-off factors affected final demand in the third quarter, it is difficult to separate the signal from the noise, leaving considerable uncertainty about the strength of the recovery going forward. Most participants see the economy growing at a moderate pace in 2010, a pace that would imply a very slow decline in unemployment. Risks to the economic growth outlook are roughly balanced, with conditions in financial and labor markets posing threats to growth but the possibility of a stronger consumer and strong productivity growth creating upside risks. Concerns remain about the dependence of the economy on government support and the ability of the economy to deliver a self-sustaining recovery without that support. One participant characterized the likely recovery as “a long slog,” and one thought of it as a checkmark, which we will continue to evaluate. The emerging global recovery, especially in emerging markets, is supportive of economic growth here.

With respect to inflation, the risks seem roughly balanced as well, with some arguing that slack will lead to declining core inflation and others noting that rising energy prices, policy expectations, and inflation expectations that may not be as anchored as we would like are upside risks. Some saw slower inflation in the near term but upside risks further out. Consumer spending

is modestly stronger, even outside autos. However, weak labor markets, the poor condition of household balance sheets, declines in net worth, and tight credit are drags on sentiment and the ability to spend. Labor income is flat as hours decline and wage growth slows. How the saving rate will evolve is difficult to anticipate, but further declines in the saving rate from here do seem unlikely.

Housing activity has improved, and house prices have risen modestly in some areas. Inventories of housing are down, and we may have seen a bottom. However, factors such as the first-time homebuyer tax credit and Fed MBS purchases may be driving that trend to some extent. Builders, especially smaller builders, remain pessimistic.

Business owners generally remain quite cautious and continue to focus on cost savings in the absence of significant top-line revenue growth. The resulting productivity gains have been impressive. However, there is substantial reluctance to hire or invest, except possibly abroad, due to uncertainty about prospective demand and about Washington's grape-shot approach to policy. Continued strengths in parts of the global economy, notably Asia, have helped to increase exports supporting manufacturing, though net exports are not likely to be a large net contributor to GDP growth overall.

The labor market remains very weak. As noted, firms continue to look aggressively for cost savings and see little need to hire even if demand expands. Small businesses, which are normally a source of employment growth in recoveries, have been hit especially hard by the credit crunch and weak demand. UI claims are falling, and job cuts are moderating, but both are still high. The employment-to-population ratio is at a long-term low. Firms will be able to increase hours to meet increases in demand, delaying the need to add to payrolls. We must take account of the possibility of a jobless recovery.

Financial markets have shown signs of healing, with asset prices much higher than earlier this year and credit spreads much narrower. More recently, though, the markets have moved sideways reflecting uncertainty about recovery, and continued improvement is not guaranteed. Large firms with access to public markets are having little difficulty obtaining credit. They also hold plenty of cash. Smaller, bank-dependent firms are having a more difficult time, however. The situation for banks is mixed. Rising nonperforming loans will be a continuing source of stress, but there is some optimism about future credit losses, and profits and liquidity are both improved. Poorly rated banks, in particular, are not lending but are trying to improve their capital ratios by shedding assets, and many participants cited commercial real estate as a major concern both for the banking system and for the broader economy. Banks are also affected by policy uncertainty both here and abroad.

Finally, on inflation, core inflation and median inflation are slowing, but headline inflation will be increased somewhat by price increases in energy, commodities, and imports. Wages and unit labor costs have slowed, the latter reflecting sharp gains in productivity. Firms report that they have no pricing power. Participants continue to disagree on the appropriate weights to place on resource slack, inflation expectations, and other factors in forecasting inflation. Substantial resource slack and slow wage growth may tend to push inflation down; on the other hand, inflation expectations may be less anchored and more disperse than they appear and could be vulnerable to the public's concerns about the extraordinary monetary and fiscal policy actions that have been taken or to disorderly declines in the dollar.

Participants discussed the measurement of market expectations of monetary policy; the need to communicate exit plans and to exit at the appropriate time; the need to allow asset purchases and other aspects of policy to respond on the margin to changes in economic outlook; and the

determinants of inflation expectations and potential output. That's my summary. Comments, reactions?

All right. Let me make just a few additional comments here. As everyone has noted, the intermeeting data were modestly encouraging. We saw third-quarter economic growth, and we expect the fourth quarter to be positive as well. Markets have become somewhat more uncertain, though, about the durability of the recovery and also perhaps about how this Committee will proceed.

The issue remains for everyone, I think, what will happen after the end of this year—how the recovery will look in 2010. At the last meeting I described my outlook as muddled, and I remain firmly in that position. [Laughter] If pressed, however, I would acknowledge that I feel somewhat more concerned about 2010, although I did make my balance of risks balanced. As many of you have noted, the behavior of the consumer is very important, and I guess the good news, at least from a cyclical point of view, is that the Greenbook seems right so far that we're not seeing a major increase in the household saving rate that would be, at least in the short term, a problem for the recovery.

However, I do think there are some significant downside risks to that scenario, particularly in the labor market and the banking sector, and let me just talk about those a bit. As Governor Kohn mentioned, the saving rate actually is quite low, given many of the fundamentals, and it seems very possible that it may rise if the labor market remains as weak as it appears. I would like to discuss the labor market briefly because I think we really need to focus on the labor market as one of the key elements of the recovery.

My sense is that, even given the bad headline numbers in terms of unemployment and payrolls, the labor market may be even weaker than it looks. For example, insured unemployment

on regular state programs, the UI claims we check every Thursday morning, have peaked and come down significantly, and the outstanding stock of people on unemployment insurance is down to about six million. But when you look at UI claims plus regular UI plus extended and emergency benefits, the number is ten million and has not peaked. It is still very, very high. Recently the BLS announced benchmark revisions that will lower the level of employment by another 850,000 jobs. So joblessness, employment-to-population ratios, and so on are extraordinarily high. Moreover, that joblessness has a very large component of permanent separations and long-term unemployment. As we've seen in the last two recessions—looking at JOLTS data, for example—hiring rates are particularly weak, particularly contributing to the unemployment rate and the duration of unemployment, which is not encouraging as we look forward to the possibility of a jobless recovery.

Just note that different demographic groups are reacting differently to the very poor state of the labor market. Prime age males who have high attachment to the labor force have not dropped out of the labor force, but their unemployment rate has jumped much more significantly than that for the labor force as a whole. On the other hand, younger workers under age 24 have been dropping out of the labor force, and participation rates there are considerably down. So my first general point is just that the weakness is perhaps even worse and more pervasive than the unemployment rate may suggest.

Second, looking forward, there's not much indication of increased hiring, at least in the medium term. You can see that in anecdotes we heard today. You can see that in surveys, and I think there is the point that others have made, but is worth mentioning again, that, despite all the cuts, despite the cost savings, firms have quite a bit of capacity to increase labor input without adding full-time workers, including calling back workers on furlough, adding hours to part-time

workers, increasing work weeks and adding overtime, and adding temporary workers, which adds to the number of people employed but not obviously to longer-term employment.

A third point is that jobless recoveries almost by definition involve high productivity growth rates, and all of the indications so far suggest that, in fact, employers are finding those cost savings, which of course is good for the long term but again is a negative for future employment.

Then the fourth and final point I want to make about the labor market is that we need to think about the interaction between the labor market and the credit markets. There is a tremendous contraction going on in bank lending. Nominal C&I bank loans outstanding are down about 12 percent, or \$200 billion, over the past three quarters, and although we have seen some improvement in the Senior Loan Officer Opinion Survey, we still have net tightening in that area. As people have noted, for large firms the bank lending contraction may not be such a big problem. They have access to the public markets, and they have lots of cash. But for small firms, I think it is a serious problem, as many of you have heard from your constituents. Not only are bank lending and bank credit lines for small firms highly restricted, but in addition, you have the greatly reduced availability of home equity lines and credit card lines, which are important for very small businesses as a source of credit. As a result of this, the small business hiring plans as reported by the NFIB are sharply below the troughs of 1990 and 2001 and have not improved at all from the worst levels of earlier this year.

Now, there is an ongoing debate on the importance of small business in job creation. There are some exaggerated numbers out there that are often used in political discourse. The net creation of jobs by small businesses is much less than the gross creation because of the rapid turnover of small firms, but that's a steady-state observation. In the growth phase of the business cycle, because small businesses are so cyclical, they actually contribute substantially, perhaps 40 percent or more,

to job additions during a recovery. So the credit problems that they face could be an important problem directly affecting employment.

Let me just say a couple of words about the credit crunch and banks. I was encouraged to hear Governor Duke's views on banks. There are some encouraging signs in terms of profitability, liquidity, and credit quality. Nevertheless, as I mentioned before, the actual lending, the willingness to lend, and loans outstanding are quite constrained, and we're seeing again very sharp declines in outstanding credit. An interesting question is whether or not the declines in credit in the banking sector are the normal response to a deep recession or whether there is something additional going on. I may have remarked on this before, but to try to test that we've done vector auto regression analysis that includes bank credit, nominal GDP, and terms and conditions of lending, indicators from the SLOOS. And what you find, interestingly, is that the decline in lending can be explained by the combination of slow growth and tighter conditions. So in that respect it is normal, but the tightening of conditions itself is far greater than would be expected historically given the decline in the economy. So what seems to be happening is that firms are making loans, but they are doing so under unusually tight terms and conditions, even conditional on the depth of the recession. Now, there are two possible explanations for that. One is that credit quality is worse than usual even given the state of the recession. The other is that banks' own problems, capital and so on, are restricting credit. In either case, that is concerning and suggests that the financial headwinds will be there as we go forward.

Again, I do think that both the labor market and the credit markets are going to be very formidable issues going forward and make a moderate-to-slow recovery more likely than a rapid recovery. That being said, I just want to say for the record that there are some upside risks to



economic growth as well, and they're a little harder to identify almost by necessity since one never knows where growth is going to come from, but these are important considerations.

I want to talk once more, as I did last time, a bit about implications of low interest rates. I think most would agree that there is a good policy case from the economy's point of view for maintaining low rates. But I think we also would all agree that we need to continue to monitor any possible side effects from low rate policies that might be concerning. One set of issues is speculative excesses, and I will say that we are trying here at the Board—and I hope you will at the Reserve Banks as well—to monitor even more closely than usual the state of asset prices as they evolve. My sense is—and Brian Sack talked about this yesterday—that U.S. asset prices, so far at least, do not show any strong evidence of mispricing or asset bubbles. In particular, equity premiums are still above normal, so stock prices don't seem unusually high. Bond spreads seem reasonable given expected default rates in the state of the economy, and so on. So in the United States so far—though as I say, we need to continue to monitor it—I don't see that as being a near-term concern, although there is obviously a lot of chatter about it, and that is one reason I think we need to be particularly attentive.

There is more concern about what is happening in Asia, where some markets seem to be overheated. I just would make a point there, which is that the link between those asset prices in Asia and our monetary policy may be weaker than is sometimes believed. There is a view espoused in some quarters that, because of the exchange rate management in Asia, Federal Reserve policies are essentially just imported into the Asian economies and, therefore, are a source of overheating in those economies. A recent paper here at the Board by Erceg, Guerrieri, and Kamin looks at that from a number of different perspectives. One of the interesting points that they make is that, if you look at the monetary policy indicators—short-term interest rates, for example—in Asian countries,

including China, and compare them with the U.S. federal funds rate, you see quite a bit of divergence because of capital controls and because of imperfect substitutability among assets. Asia does seem to have some ability to conduct independent monetary policy. In that respect they obviously need to conduct policy that's appropriate for their region. In addition, they have various kinds of quantitative controls on credit and on prices, and they also have fiscal policy. So I think we need to pay attention to the Asian situation, but I would caution us not to overstate the responsibility of our policy for those excesses.

A second area that we need to pay attention to in terms of the side effects from the low interest rates is the behavior of the dollar. There were some anxious moments in the markets during the intermeeting period, but if you look at the pattern of the dollar over the last year or so, it seems to have been a fairly predictable and orderly evolution. What we have seen, of course, is a rise in the dollar associated with safe haven demand and then an unwinding of that safe haven demand as the financial markets have improved. Indeed, the current value of the dollar is about the same as it was before the crisis, the same as in June 2007, and nominal and real broad indexes are either equal to or higher than what they were in 1995. So we see that there is not a really large secular movement in the dollar. Moreover, a lower dollar may be necessary—we don't know for sure—to address the current account situation. The other relevant fact, I think, is that so far we don't see any evidence of a shift away from the dollar in reserve holdings. But all that said, an orderly depreciation is orderly until it's not orderly, and then at that point there may be a change, and we may be concerned. I think an unstable dollar does have costs both for us and for the international monetary system, and obviously it also has implications for commodity prices, inflation expectations, and so on, which could force our hand or hamper our policy in ways that we would

otherwise not want to go. So, again, I think that this is an area that we need to continue to pay attention to.

I've talked about inflation before. I'm not going to reiterate. I think we're all waiting for Jeff Fuhrer and the presentation in December to finally resolve all of the differences on the Committee about the dynamics of inflation. [Laughter] So I'll leave my views until that time.

I will just once again close by saying that one of the important elements—I think everyone agrees—is to demonstrate that we can and will exit at the appropriate time from our extraordinary policies. The presentation yesterday about the progress being made on reverse repos and term deposits, the winding down of our liquidity programs, and so on shows that we are in fact, more so than some other countries, moving back toward a more normalized type of policy, which I think, when we are able to do that, would be very good news. So let me stop there. Any questions or comments? President Plosser.

MR. PLOSSER. Mr. Chairman, on your discussion about credit and banks and the amount of loans outstanding—my understanding is that if we look at, say, C&I loan outstanding credit, there are two components to that. One is new loans being made, and there are also the write-downs of existing loans that reduce what appears to be the outstanding value. So one of the things that I think would be interesting in looking at that is distinguishing between those two things—where the volume of new loans is, how much of it is new loan creation, and how much of it is just write-downs of existing loans; and that might tell us some interesting things about what's happening.

CHAIRMAN BERNANKE. Yes, that's a very important point. I guess I would say that, given that C&I loans have fallen much more sharply than other categories, it would seem unlikely that write-downs would be the major source of that. It is part of it, certainly. But the other factor that affects those numbers is the ability of banks to make loans and then to securitize them. And

that has actually declined, which means that there is more holding of loans on their balance sheets. So that to some extent goes in the other direction, but your point is well taken. Other questions?

MR. LACKER. Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. The research you referenced, VARs and lending, is that available? Is that written up?

CHAIRMAN BERNANKE. Well, this was just a simple VAR that I asked for, but certainly we can send it to you.

MR. LACKER. Give us a list of the variables, we'll run it ourselves if we have to. If it was written up, it would be really convenient.

CHAIRMAN BERNANKE. Any other comments, questions? All right. Brian, let me turn to you for introducing the policy round.

MR. MADIGAN.<sup>3</sup> Thank you, Mr. Chairman. I will be referring to the package labeled "Material for Briefing on Monetary Policy Alternatives." This package includes the revised versions of the draft policy statements that were distributed on Monday, with one small further change to alternative B shown in blue, and a correspondingly updated version of the sequence of policy statements and actions that was discussed in the Bluebook.

As I noted yesterday, the forecasts that you provided for this round indicate that most of you anticipate the economic recovery over the next several years to be protracted, even more so than in the Greenbook. The central tendencies of your projections of real GDP growth for 2010, 2011, and 2012 are on the low side of the corresponding Greenbook forecasts. As a result, you generally see even slower progress than the staff in reducing unemployment over the next several years; 12 of you see the unemployment rate remaining at or above 7 percent three years ahead, above the forecast in the Greenbook extension of 6.1 percent. Although many of you edged up your estimate of the sustainable rate of unemployment, nearly all of you estimate that rate to be no more than 5¼ percent, suggesting that you see considerable slack persisting for years.

While some policymakers again noted in their forecast narratives that they view the linkage between slack and inflation as weak, others anticipate that the

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

underutilization of resources will put further downward pressure on inflation. In any case, the central tendency of your inflation forecasts remains within a range of 1 to 2 percent over the next several years. Most of you again indicated a view that, with appropriate monetary policy, inflation would be about 1¾ to 2 percent in the longer run. Thus, most of you continue to expect that inflation over the next several years will be on the low side of what you see as the mandate-consistent rate of inflation.

The Committee might see this combination of substantial, persistent resource slack and very low inflation as motivation for adopting alternative A, page 2 of your package, at this meeting. Under this alternative, the Committee would apply additional monetary policy stimulus by increasing its purchases of agency mortgage-backed securities to \$1.5 trillion, and it would retain the existing maximum of \$200 billion for its agency debt purchases. In order to accomplish the increased MBS purchases and the substantial agency debt transactions without placing undue pressures on the associated markets, these programs would be extended through the second quarter. Staff estimates suggest that the increase in MBS purchases might lower longer-term rates 15 to 30 basis points—although, admittedly, these estimates are subject to considerable uncertainty. Such a decline in yields might provide sufficient stimulus to aggregate demand to reduce the unemployment rate two years ahead by as much as ¼ percentage point relative to the rate that would otherwise prevail.

The Committee’s statement would explain the decision to provide additional stimulus by noting that restraints on consumer spending and business spending suggest that the economic recovery will be relatively weak and that slack in resource utilization will diminish quite slowly absent further policy action and by highlighting that inflation has already fallen considerably over the past year. To make very clear that the Committee did not anticipate raising rates at all for quite some time, the statement would indicate that “the Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that low rates of resource utilization, subdued inflation, and stable inflation expectations are likely to warrant *this* exceptionally low range for the federal funds rate for an extended period.”

If the Committee instead saw its current policy stance as appropriately balancing the risks to growth and inflation and, in particular, as balancing the costs and benefits of large-scale asset purchases, it might be inclined toward adoption at this meeting of alternative B, shown on page 3. Even though policymakers generally anticipate a slow and protracted economic recovery, appreciable and persistent resource slack, and low inflation, the Committee might believe that continuing to stay its hand at this meeting is appropriate. According to your economic forecasts, many of you no longer see the risks to economic growth as skewed significantly to the downside. And although you generally also see the risks to inflation as balanced, many of you are still quite uncertain about the inflation outlook. Even with an assessment that the risks to the inflation outlook are balanced, at this stage you might see the potential costs of providing additional stimulus—including possible adverse effects on

inflation expectations and incrementally greater challenges in implementing an exit strategy—as outweighing the potential benefits in terms of a reduction in economic slack and an inflation rate closer to your objective.

Under alternative B, you would leave the settings on your policy instruments essentially unchanged, making no adjustments to your federal funds rate target range or your MBS purchase amounts and no major modifications to your forward guidance or agency debt purchases. The first two paragraphs of the statement would largely repeat the language used in September. The statement would indicate that economic activity continues to pick up and that conditions in financial markets have been roughly unchanged over the intermeeting period. The Committee would again mention that various factors are likely to continue to restrain household and business spending and that, consequently, economic activity would probably be weak for a time, but the statement would still note that past policy actions and market forces are likely to support a strengthening of economic growth. In paragraph 2, the Committee would once more note that resource slack and stable inflation expectations were likely to keep inflation subdued for some time.

The Committee would continue to indicate in the third paragraph that economic conditions were likely to warrant exceptionally low levels of the federal funds rate for an extended period. However, using new language, the Committee would specify that those economic conditions include low rates of resource utilization, subdued inflation trends, and stable inflation expectations. By referring to economic conditions generally and by citing three factors that are included in the set of conditions, the Committee would make clear that these three factors would not necessarily be the sole triggers for changes in the Committee’s policy stance. Also, by referring to “subdued inflation trends,” this version would avoid implying that the Committee would necessarily respond to short-term changes in realized inflation rates, which could be driven by factors such as transitory fluctuations in energy price inflation.

Under alternative B, the Committee would indicate that it decided to purchase about \$175 billion of agency debt securities, somewhat less than the previously announced maximum of \$200 billion. The Committee might believe that it was unlikely to purchase the full \$200 billion maximum amount; after allowing for some tapering, the Desk’s current pace of purchases is consistent with total purchases of around \$175 billion between now and the end of the first quarter of next year. Relative to the language circulated on Monday, we suggested a small additional revision to help clarify that this was the Committee’s motivation for making the change. Although market participants generally do not anticipate that the Committee will alter its plans for agency debt purchases, the contemplated adjustment is small. Moreover, the overall announcement appears to be broadly in line with market expectations and thus seems unlikely to prompt a sizable market reaction.

Under alternative C, page 4, the Committee would reduce the degree of monetary accommodation by scaling back its large-scale asset purchases at this meeting. The

Committee might be inclined to adopt this alternative if it saw the recovery as now reasonably well established and was not especially concerned that slack might push inflation to excessively low levels. The Committee might also be motivated to adopt this approach if were concerned that it might have difficulty reversing its accommodative policy stance at the appropriate time or, possibly, if it were worried that very substantial amounts of liquidity in the financial system might already be in the process of causing significant distortions in asset prices.

In the first paragraph of the announcement for alternative C, the Committee would indicate that an economic recovery appears to be under way. The statement would note that household spending appears to be expanding, without citing the list of possible restraints that are referenced in alternative B, and would mention that businesses appear to have made additional progress in bringing inventories into better alignment with sales. The second paragraph would express the expectation that, with appropriate monetary policy adjustments, inflation will remain at levels consistent with price stability, thereby acknowledging an active role for policymakers in influencing the inflation outlook. In the third paragraph, the Committee would note that it anticipates maintaining “low,” rather than “exceptionally low,” levels of the funds rate and “for some time,” rather than “for an extended period.” Clearly, these two changes would be read by market participants as suggesting that the Committee was beginning to think seriously about raising short-term interest rates. The Committee would back up those changes in words with action—reductions in its large-scale asset purchases, to \$1.1 trillion of MBS and \$160 billion of agency debt. It would also indicate an intention to complete those purchases by January rather than March. These changes would directly reduce support for those asset classes and their close substitutes, and it would also significantly reduce the accumulation of reserves in the banking system relative to that of alternative B. With market participants not anticipating any significant change in policy settings at this meeting, the combination of the change in wording and the reduction in asset purchases under this alternative would likely trigger an appreciable backup in market interest rates.

The Bluebook also provided for your consideration an illustrative sequence of policy language and actions going forward. That sequence, modified slightly to reflect the changes we have made to the draft policy alternatives, is included on the next couple of pages of the package. Key portions of the policy alternatives for today’s meeting are shown in step 2. Depending on how conditions unfold, language similar to that in step 2 for either alternative A or alternative B could be repeated for several meetings. If the Committee were to adopt alternative A or alternative B today, at some future meeting, once the economic recovery is viewed as sufficiently established, the Committee might consider modifying its guidance to refer to the maintenance of either “low” or “exceptionally low” levels of the federal funds rate and “for some time,” rather than “for an extended period,” as in step 3. If the Committee instead selects alternative C at this meeting, it would have already adopted the “for some time” language proposed for step 3.

Once the situation has progressed to the point that the Committee has concluded that policy firming would soon be appropriate, it might consider a number of changes to its policy language and forward guidance. For example, as shown in step 4, the Committee might want to indicate that “some” or “a gradual” “reduction in the exceptionally large degree of monetary accommodation will be appropriate before long.” The following sentence could note that such tightening would be conditioned on economic and financial circumstances but still provide somewhat more specificity about the Committee’s sense of when that reduction might be initiated—for example, by narrowing it down to a half-year interval. The remainder of the paragraph would discuss the tools that the Federal Reserve anticipated using to accomplish this reduction, including increases in the rate of interest on reserves, reverse repos, and term deposits for banks. It could also indicate that, although the Federal Reserve currently does not have plans to sell assets from its portfolio, it retains the option of such sales.

An example of the language that could accompany a decision to commence policy firming is shown as the fifth step. Here we have assumed that the Committee retains a target range for the federal funds rate, at least initially. We have further assumed that the discount rate and the interest rate on reserves would be raised commensurately with the increase in the federal funds rate target. In the example, the Committee would direct the Desk to use reverse repos to reduce the quantity of excess reserves in the banking system to reinforce the upward pressure on short-term interest rates; however, it is also possible that the Committee might decide to drain reserves from the banking system before it raised its target range for the federal funds rate. The Committee could indicate its intention to “further” or “gradually” reduce the still-exceptional degree of monetary accommodation in subsequent months. The statement could again indicate the tools that might be employed to execute this reduction and reiterate that asset sales could also be employed.

Of course, the Committee’s exit strategy potentially has many moving parts, and at this stage the exact combination and sequence in which these tools would be used is not entirely clear. Thus, we emphasized in the Bluebook that these drafts should be viewed only as illustrative. Nonetheless, they might be helpful to the Committee in considering how its near-term policy decisions might fit into a broader plan for ultimately removing policy accommodation. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, Brian. I have actually a quick question. In the final part of the exit, you have a federal funds rate target, which changes, and then you support that with an increase in interest rate on reserves, and so on. Are we comfortable with that? The alternative would be, say, to tighten monetary conditions—“The Federal Reserve is taking the following actions”—and those would include the interest rate on reserves, sterilization of some



reserves, and so on. You don't have to answer the question now exactly, but it seems to me that an alternative, rather than targeting the federal funds rate, might be simply to state the actions that we would be taking, which we know we can control, and therefore reduce that slippage.

MR. MADIGAN. Yes. That certainly seems as though it is worth further thought and discussion. And I don't have a definite answer for you at this point. One disadvantage of proceeding in that direction might be that market participants would wonder what happened to the target funds rate range and why the Committee didn't set one. And it would seem that we would need to explain why we didn't set one.

CHAIRMAN BERNANKE. Other questions? President Lockhart.

MR. LOCKHART. Brian, in your discussion of alternative B and the new language that precedes the "extended period" statement, if I heard you correctly you were saying that you were proposing to add the new language, but it is not necessarily the sole trigger, and that that is conveyed in the statement. Is that conveyed by the word "including"?

MR. MADIGAN. Yes, President Lockhart, that was our thought—that by referencing primarily economic conditions and then including a subordinate set of phrases, these specific items, those would not be necessarily the only factors that could lead to a change in the target range.

MR. LOCKHART. And it is your sense that adding this new language, which is a lot more specific as to conditionality, is balanced with the "including" word and others to convey that it is not necessarily those factors that are going to dictate our decision.

MR. MADIGAN. That was our thought.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Just in thinking about this transition, one of the things that would be interesting to know is—and, Mr. Chairman, you talked a bit about this yesterday—where do you want to get to at the end of the day in terms of how we are going to conduct policy? Are we going to envision ourselves in a corridor system of some kind or a floor system? How are we going to treat the federal funds market? Getting more specific about where that endpoint is, where we think we want to get to as we come to more normal policy, would be helpful to us, and then working backwards to figure out the transition we want to get there. I think this is a really good exercise for us to be doing, and so I would encourage you to keep pursuing that, and thinking about that endpoint would be a useful addition to thinking about that.

MR. MADIGAN. And we do continue that work.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you. It's a small question. I am probably parsing this too closely, but the words that you gave us—in alternative A, you refer to “this exceptionally low range for the federal funds rate for an extended period,” and, in B, “exceptionally low levels . . . for an extended period.” My inference on this would be that B accepts the possibility that this might be a higher funds rate than 0 to  $\frac{1}{4}$ , since it is not *this* exceptionally low. I wouldn't have interpreted B that way, but—am I parsing too much?

MR. MADIGAN. Well, that was the distinction. Alternative A just pins it down more tightly than B does, but it may not be an important—

MR. EVANS. I would guess that the Committee's interpretation of B is this 0 to  $\frac{1}{4}$  range for an exceptional period of time. Okay. Thanks.

MR. KOHN. And that repeats the language of the September—

MR. EVANS. Yes, it does. It is something only we would recognize as a difference, because we see A and B. [Laughter]

MR. FISHER. Brian accented “this.”

MR. EVANS. Well, it’s in red.

CHAIRMAN BERNANKE. He used the language. I assure you that someone will notice it. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. This has to do with your interpretation of the “including” word. The original version last week was that we continue to anticipate that these three things are likely to warrant low levels for an extended period. I interpreted that as a one-way thing and as that we are not going to raise rates unless one of these three things changes. So there are two things. First, I take low rates of resource utilization to be a broad reference to the level of economic activity. Then there is inflation. I am wondering what else there is that is relevant to policy. And then I have another question.

MR. MADIGAN. Well, just as an example, and this may or may not be a good example, the value of the dollar was mentioned earlier as a possible consideration in making monetary policy. The revised language was intended just to loosen things up a bit so that it was not solely these three factors that would necessarily drive policy decisions.

MR. LACKER. The second question is, The original way in which I read this is that we are not going to raise rates unless one of these three things changes; is that the way you interpreted the original?

MR. MADIGAN. Well, it is not an absolute commitment. It is an expectation. But apart from that distinction—yes.

CHAIRMAN BERNANKE. This is the Bellman principle, President Lacker. The Bellman principle is that, if the situation looks the same, you do the same. Right? If the economy looks six months from now exactly as it looks today—

MR. LACKER. Yes, I understand that. But now there is a fourth thing that we are not telling them about, which could induce us to change rates, even if these other three things—

MR. FISHER. Are you talking about the dollar?

MR. LACKER. Whatever it is.

MR. FISHER. Oh, the unknown fourth thing.

MR. LACKER. We are saying that we are not going to change rates unless one of these three things changes or a fourth secret thing changes. Is that the right way to interpret this?

MR. MADIGAN. Well, I don't certainly see it as referencing a secret. Clearly, these three factors that we list explicitly are very important factors in governing the stance in policy. But, again, this is simply intended to allow for the possibility that something else might incline the Committee to adjust its policy even without a significant change in these three items.

CHAIRMAN BERNANKE. I think it conveys a sense also of not being an automatic mechanical trigger—that there is still going to be judgment involved in looking at all of these issues.

MR. LACKER. But it is one way, right? It says that we are not going to do it unless one of these three things changes. But if one of these three changes, we don't have to do it, the way it was worded before. So it doesn't require us to do it if one of these changes. It just means one of those things has to change before we do it. Right? That's the way I was interpreting it.

CHAIRMAN BERNANKE. I don't think it actually means that. Remember what we said originally. We made a forecast of policy that we said economic conditions would likely

justify. It wasn't an unconditional forecast. It was a conditional forecast that we thought the economy was going to evolve in such a way that would justify low rates of interest, and this is a description of some of the things that we would be looking at that we expect to happen and that would, therefore, tend to keep us at the low rate.

MR. LACKER. I guess what I'm saying is that the way it was before and the way it was done, if conditions are in this set, rates will be low.

VICE CHAIRMAN DUDLEY. Likely.

MR. LACKER. And if they are out of this set, all bets are off. We're not saying whether they are going to be low or not.

CHAIRMAN BERNANKE. We can go back to the old language if you want, but the purpose of it is to try to provide more explicit information about what we are going to be looking at.

MR. LACKER. Exactly. I endorse that entirely.

CHAIRMAN BERNANKE. And I think the presumption would be, if there were a sharp change in inflation expectations, for example, that we would respond to it.

MR. LACKER. Absolutely. Yes. I think it is valuable to provide some more guidance like this and to round out the reaction function. But my interpretation is that we are just saying that in this set of conditions we expect low rates. It is sort of asymmetric in that regard.

CHAIRMAN BERNANKE. I think it would be read as saying that, if these conditions fail to hold, we would have to respond to it or at least seriously consider responding to it.

MR. LACKER. All right.

CHAIRMAN BERNANKE. Other questions for Brian? President Pianalto.

MS. PIANALTO. Mr. Chairman, when the first draft of alternative B came out, it dropped economic conditions and just listed these three factors, and I commented to Brian that I thought that was just too narrow because it was so closely focused on these three factors. So I prefer this revised language because it leaves in economic conditions and then, as you point out, highlights these three factors. I just wanted to highlight that it was a concern that I had raised. I prefer the language as it is now.

CHAIRMAN BERNANKE. Any other questions for Brian? Okay. The coffee is ready. And in order not to interrupt the policy go-round, why don't we take a break and restart at 11:00. Thank you.

[Coffee break]

CHAIRMAN BERNANKE. Okay. Why don't we recommence with the policy go-round. President Plosser, lead-off hitter.

MR. PLOSSER. All right. Thank you, Mr. Chairman. While the timing of our exit from this period of extraordinary monetary policy accommodation remains highly uncertain, I do think it is important for the Committee to begin to consider language that begins to prepare the markets for that eventuality. Never being shy about being a maverick, I think that we should begin that process sooner rather than later. Thus, I have a general preference for the language in alternative C, although even in C I would not choose at this point to cut MBS purchases from \$1.25 trillion to \$1.1 trillion. Just at our last meeting we took out "up to" and, therefore, committed to \$1.25 trillion. I don't think cutting it would be a good idea. It would confuse the market at this point. However, for some strange reason, I get the impression that the Committee is not yet ready to adopt alternative C. [Laughter] Maybe one of the more understated statements I have made, but I certainly get that impression.

But I do think there are some elements of C that could be useful incorporating into alternative B to help prepare markets for a shift in policy stance at some point. So I would like to suggest a couple of those in particular. I think the emphasis in paragraph 2 of C on stable inflation expectations—and, particularly I like the language on policy adjustments that will keep inflation “at levels consistent with price stability”—is good language. From my perspective, this indicates a more proactive approach to price stability, which I think is appropriate. Thus, I would prefer to substitute paragraph 2 of C for paragraph 2 of B. Now, an intermediate step for that might be to leave paragraph 2 in B as is and substitute “inflation will remain subdued in the near term” for “inflation will remain subdued for some time.” Then include a sentence in B adopting from C “with appropriate policy adjustments” the Committee expects inflation to “remain at levels consistent with price stability,” reinforcing our efforts to say that we will clearly deliver on this.

The other modification I would make to alternative B is in the forward guidance for the funds rate in paragraph 3. Obviously, I would have preferred that we move away from “an extended period” and substitute “some time.” I think this is a signal that the policy environment is in fact changing. We have kept rates near zero now for almost a year, and the “extended period” language has been in place since March. I think we are closer in time, whenever that time may be, to raising rates today than we were in March, and now might be a useful time to indicate as much.

In fact, even if we were to raise rates to 50 basis points or to 75 basis points, they would still be extraordinarily low by any historical standard. Indeed, there may be some real advantage to moving policy modestly away from the zero bound to allow these short-term financial markets and money markets to begin operating more normally in a more normal environment. I would

suggest that we need to consider the fact that our extensive intervention in some of these markets may be an inhibitor to the financial and economic recovery that we all desire. In any event, changing the language in this manner is not inconsistent with other actions we have taken to gradually unwind our extraordinary actions. For example, we have ended the Treasury purchase program. We are limiting TAF auctions. We are prepared to cap purchases at less than the full amount of agency debt in the statement. And we have suggested the termination of some other liquidity programs. The markets now know that we will gradually remove accommodation, so I don't see that a shift in terms of this language would be either dramatic or disruptive. Yes, probably the timing of the language change may come as a surprise, and there may be some immediate market reaction. I don't think this should deter us, since I also think there are costs to waiting too long to at least signal that we are contemplating a more direct exit.

With respect to the new language in alternative B, paragraph 3, I prefer the revision to what was in the Bluebook, although I am a little uncomfortable with some of the ambiguity. By being explicit about resource utilization, subdued inflation trends, and stable inflation expectations as among the joint determinants of monetary policy—which I think is what the language is trying to do—we seem to be preparing the markets for the possibility that monetary policy would react to unwelcome inflationary developments, even if resource utilization is lower than we would like. I think that is a good thing. We ought to be doing that, and I am supportive of being more explicit about the nature of our reaction function and the factors that matter. I think that is important for transparency and communication.

On the other hand, of course, my view about yet another repetition of resource utilization language is that this reinforces my concern about our narrative that I talked about yesterday—that our narrative about resource utilization is something I am uncomfortable with and it may



unduly tie our hands if we are not careful. Nevertheless, even with that I am in favor of the language change. But I do not want, and I don't think we should prefer, to take steps that explicitly or implicitly are designed to lower the expected future funds rate path. In fact, I think it would serve us well if the statement raised the path somewhat.

I agree with President Bullard that this Committee has historically not begun a tightening cycle until often two years or more after the trough. However, while that may be true about our behavior, I don't infer from that that such behavior is in any way optimal or desirable, and so I wouldn't want to take that forecast as meaning that we shouldn't do anything for the next two years; that shouldn't govern our response.

One part of the language that I am a little uncomfortable about is that I find the use of the phrase "subdued inflation trends" somewhat ambiguous and, thus, kind of lacking content and transparency. How is the market supposed to know what we think the inflation trend is if we can't define it for ourselves? If what we mean is core inflation, then we ought to say so. What we seem to want to be signaling, as Brian indicated, is that we may not be worried or we won't worry about reacting to rising commodity prices and oil prices. At the same time, if we don't want to react to those—I don't recall us going to such pains to make such a distinction when oil prices plummeted from \$150 a barrel to \$70 a barrel last fall and winter and then we reacted to that with fears of deflation. So I think a model of the deflation that we have witnessed over the past year, particularly in headline and to some degree in core, is partly a pass-through reflection of oil prices falling, just as we get some upside when oil prices rose. We weren't very explicit about the nature of relative price movements during that period, and so we seem to be asymmetric in our reaction function, and I don't think we should be.

Once again, I think we find ourselves in somewhat of a language box, which could be greatly mitigated by having an explicit, well-articulated inflation target. What we really should worry about is the impact of these relative price shifts on expectations of inflation, and having an inflation target specified over a reasonable period would allow us to focus on headline inflation and give us much less angst in wordsmithing challenges and explaining what we mean.

I will simply note that I am also comfortable with reducing the volume to \$175 billion of the agency debt. The Desk has warned us a couple of times about fears and concerns they may have about our dominating that market and the functioning of that agency debt market. So I think it is appropriate that we try to exit ourselves from that as soon as possible.

Finally, I would like to commend the staff for including the section on a possible sequence of language and actions in the most recent Bluebook. I think this is a great step in the right direction. It is important that we begin thinking ahead about how we will exit and the language that would help us do that. As I mentioned before, it would be nice if we could define for ourselves what the new operating regime will be in normal times, and then work backwards in our language so that we get to the place where we want to be. But I found this a step in the right direction. This is a useful exercise, and I hope we will continue it.

I have a couple of comments. One, in paragraph 4 of table 2 in the Bluebook—"policy firming is likely soon," I guess is the title—I think this may be too small a step. Actually, I think the first step we might consider taking at some time might be a step to eliminate the range from 0 to  $\frac{1}{4}$  percent for our fed funds rate, that maybe we just ought to set it at  $\frac{1}{4}$  percent as a first step. I think we can do this. It wouldn't be effectively raising effective rates very much. It would send an important signal, and it would give us some experience in operating under a true interest-on-reserves regime in figuring out how close we could come to actually hitting our

target with IOR. So I think that maybe could be a useful first step at some point in the not-too-distant future. And then, depending on how that works, we can go from there as we move forward. The other thing is that I do not favor establishing calendar dates to describe our policy path. Policy is state-contingent, where states are economic conditions, not necessarily date-dependent. And I think we need to avoid that if we can. We must continue to stress that distinction, and work better and harder to articulate the nature of the relevant states that we will react to, which is why I favor the new language in alternative B.

Another possibility that does not seem included in table 2, but is discussed in the Bluebook and I think deserves more discussion, is the option for us to begin soaking up some of the excess reserves from the banking system before we make an explicit decision to raise rates. A modest program of selling assets earlier rather than later might support the effectiveness of interest-on-reserves mechanisms and our ability to hit the target. It would also lead to a smaller monetary base on which to implement some of our reserve-management tools and maybe even negate the need for them as we go forward. Thus I would urge us to develop this option more fully and think along the lines of eliminating the range for the federal funds rate.

As a footnote, I would remind the Committee that last time we had a discussion about the supplementary financing program with the Treasury. Over the last two months, if I read the numbers correctly, something like \$150 billion has been added to excess reserves simply because of the Treasury's termination of that program. I think we need to be explicit about what we are doing with that program and how it is affecting excess reserves. The policy discussion seems to indicate there is some assumption that it is going to come back to \$200 billion next year. I don't know whether it will or not. It certainly might. But if it doesn't come back, the Treasury is conducting quantitative easing on behalf of us. And I think we need to explicitly address that

concern and make some explicit choices about whether we want that sterilized or not, and I think that is going to be an important step going forward.

Finally, the last topic—paragraph 5 of table 2 in the Bluebook, I think—is on the discount rate decision, and we talked a little about this last time. We are going to need to address the issue of the appropriate spread between primary credit rates and the fed funds rate or the term deposit rate. Do we want the penalty rate to come back? If so, by how much and when? And how does that interact with our decisions on raising rates? If—and this is a big if—we have effectively driven stigma from the system in part through the crisis and by the TAF, I don't think we want to have stigma return if we can help it because we would like the discount window to operate more effectively. So that may affect how we think about the penalty rate. It would certainly affect how our credit officers in our individual banks react when they pick up the phone to call a bank and say, “You have been at the discount window for a week now. What is going on?” That is something that many of our credit officers do. It is prudence, but it contributes to solidifying the stigma process, which I think we would like to get rid of. In any event, I would encourage the staff to continue working on these important aspects of our transition and the future of the discount window. I appreciate their efforts. Thank you very much.

CHAIRMAN BERNANKE. Thank you. President Plosser, just a couple of factual matters. I think we do anticipate that the Treasury will raise its balances again. But if they don't, we'll have to address that. Second, I think a lot of people around the table agree with you about inflation targets, but if they are to be credible and democratically legitimate, they need to have at least some political support. And I think this moment is probably not the optimal point. Okay. President Rosengren.

MR. PLOSSER. I just keep making my plugs. That's all. [Laughter]

CHAIRMAN BERNANKE. I understand.

MR. ROSENGREN. Thank you, Mr. Chairman. I support alternative B and the language. We are seeing some initial signs of recovery, but that recovery is likely to be weak and subject to reversal. Given that we make little progress on reaching full employment or 2 percent core PCE inflation over the forecast period, even with the funds rate pinned at zero, I am strongly in favor of retaining the “extended period” language. Given the significantly greater losses that would be associated with the realization of downside versus upside risks to my growth outlook, I hope we retain some policy flexibility over the coming months. I can easily conceive of conditions under which we would need to provide additional stimulus to the economy.

Two additional comments. First, while I am comfortable with the language that has been added surrounding the agency purchase program, I would say I still am concerned that some will view that as a policy change. So to the extent that we can possibly use informal mechanisms to reiterate that it is not a policy change, I think that would be advisable. Second, in terms of communicating policy as we do start shifting to changes, I think we should focus on things that we know we can influence. So interest on reserves would be where I would be focusing the statements, at least initially, until we get a better sense of how that works. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. At this time, I don’t think it is warranted to increase interest rates, so I am in favor of alternative B, with some comments on the language that I want to focus on. First, let me say with regard to the agency debt language, it is still \$175 billion too high in my view. But it is a step in the right direction. I would support that

change. I share President Plosser's eagerness to move to the "some time" language, but right now I think it is probably too soon, with all due respect, to make that move. So I am happy leaving the "extended period" language in there. I strongly support adding the list of economic conditions to spell out, to some extent, the nature of our reaction function. I think that is a good idea. I think that is way better than treating markets to an extended period of altered adjectives on our way to our first increase.

My comments have to do with just wanting to tighten up how we all understand that and how we communicate that new language. So, as I said earlier—and I did a very imprecise job of explaining this—the way I view the little grammatical construction of the sentence is that our forecast is, if these three conditions are all true, then interest rates will be low. Now, in my view, that doesn't say anything about the states of the world in the future in which one of those is false. So I don't view it as, strictly speaking, tying our hands to move if one of those conditions is violated. So I think it is a minimal, nice, sort of judicious conveyance of the things we are going to be focusing on and that are important, what they can count on with regard to keeping interest rates low, and what might trigger but wouldn't necessarily trigger an increase. So I don't think it ties our hands too much. I know that is always a broad concern. From that point of view, I am a little uncomfortable with the "including" language. Maybe we won't keep secret these other conditions, which is not to put them in the statement, but it's hard to think of another condition that we care about that wouldn't have an effect or be expected to have an effect on these three things—inflation and rates of resource utilization, which I take to be a reference broadly to economic activity. So the value of the dollar, for example, is going to have an effect on economic activity. Fiscal policy potentially is something you might point to, but, there again, that would imply a change in economic activity absent our reaction. So I don't view this as

useful, and it waters down the conditionality because, remember, it would make the statement that there are more than three things that have to be true, and we are going to tell you three of them, under which interest rates will always be low. But there are some others we are not going to tell you about. So I think it would be clear if we dropped the “including” and went back to the original thing.

The main concern I have about the language is the phrase “low rates of resource utilization.” Now, let me make clear that, unlike President Plosser, I don’t object to the use of the phrase “resource utilization” here because this is not in the context of an inflation forecast. I think it is quite logical to benchmark our description of the level of economic activity in terms of some normative or long-run averages or sorts of norms, the way President Kocherlakota did. So I am comfortable with it in this context. My concern is that “low” is a very imprecise term and could be interpreted more broadly than I think we have in mind. And to my mind, it has this whiff of association with policy under the sort of stop-go era of policy, when we waited until we got back to something like full employment or thought of ourselves as waiting until the unemployment rate was all the way back again to normal before we raised rates. And I don’t think we want to be that liberal. I don’t think we want to cast that wide a net around the conditions under which we are going to keep rates low. So I would be more comfortable with a tighter characterization.

Now, this also made me think of President Bullard’s memo, in which he argued that the range of uncertainty about the level of the output gap is an argument for working in terms of first differences rather than levels of gaps. And that would suggest some sort of first-difference language here. Unfortunately, the best I could come up with was “non-increasing rates of resource utilization.” That struck me as so clunky and so obscure as to not really be a serious

contender. As a substitute for that, some tighter characterization of “low” would be useful—like “very low.” [Laughter] I thought about “stagnant,” “moribund,” “depressed,” and went through the thesaurus function of Microsoft Word pretty thoroughly. But “very low” is about the best I could come up with. I think that it would be useful to constrain the amount of information we are conveying a bit in a way that I think is consistent with—I mean, let’s be honest here—we are looking forward to a period in which I think we all recognize that we bring to this table some very different predilections about sooner rather than later, later rather than sooner. And we’ll wrestle with those issues when the time comes. In this statement, let’s just look for a consensus across both camps. Let’s just look for something that we can all sign onto here. It’s in that spirit that I think “very low” is preferable to me to just “low rates of resource utilization”—as hopelessly finagling as that sounds.

So let me comment a bit about asset sales because this came up yesterday. First of all, I want to commend the Bluebook, which sketched out what the steps might look like. I think it is a very good thing for us to think about devoting some time to really discussing and analyzing that. I am going to have some suggestions for staff analysis that in the future might help us work through that. But my presumption would have been that we would view asset sales as our first choice rather than our last choice. So I would like to see some discussion and analysis of that going forward.

I appreciate the value of additional tools. I don’t object to our building them and having them in place. But there are essentially two reasons that I think we ought to think about asset sales first. One is that it is not obvious the extent to which reverse RPs and term deposits are going to be as effective at altering monetary conditions as asset sales. We talked yesterday about the extent to which reverse RPs or term deposits are nonmonetary. Obviously, just that little cost



makes them to some extent nonmonetary. But that cost, which could be kind of small in some contexts, is a measure of how close they are to being virtually a perfect substitute. Moreover, with reserve balances as high as they are, surely some banks view it as extremely likely that four weeks from now they are going to want as much reserves as they have now. If that is true, then a bunch of the reserve holdings are in some sense inframarginal, and for them to convert those to term deposits may not have any effect on their desire to shift funds out of excess reserve balance holdings. So there is some uncertainty to my mind. I think there is a good chance that they will succeed but also a good chance that they will just be viewed as a perfect substitute for overnight reserves and won't have much of an effect.

Second of all, just asset sales in general—yesterday we heard evidence from the manager that our purchases have driven down MBS rates by much more than they drove down Treasury rates. Remember earlier in the year we had this sequence: In December, we got these predictions from the staff that the effects of Treasury purchases versus MBS purchases were different in amount. Then, a couple of meetings later, there was sort of an about-face, and it was a parallel shift. They thought that they would have the same effect under the idea that there is a good arbitrage between the two. Now, it seems as though the evidence over this year of experience is that we have driven down MBS rates more than we have driven down Treasury rates. Those spreads were described as abnormally low, which suggests to some extent relative to some long-run norm that we are distorting markets now. As we exit from what we are doing now, we ought to be thinking about where we want to go, and I think we want to go to a world where we are not having this permanently expansionary effect from depressing MBS rates.

I will just mention as well the hypothesis—and I haven't seen any evidence against this—that by buying MBS we are implicitly withdrawing credit from some other sector of the

economy. I mean, it is bound to be true. So whether it is net stimulative is completely uncertain. It is not at all clear that this is stimulative on net for the economy to drive down MBS rates rather than Treasury rates.

So on a lot of grounds I would like to see us transition to being out of the housing finance business a couple of years from now, and there are abundant political economy reasons to do that as well. I recognize that asset sales, even announcing them, might have a dramatic price effect. But the minute we raise the interest rate on excess reserves, we are going to have a yield curve effect. There is going to be a selloff of Treasuries. They are going to know that this is it: Here it comes—a sequence of tightening moves. So I don't think that should dissuade us—that it might be an outsized move.

Those are the broad reasons I think that asset sales deserve equal time on our agenda and some serious analysis as instruments as we move forward. Thank you very much, Mr. Chairman.

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

MS. YELLEN. Thank you, Mr. Chairman. I favor alternative B. With the funds rate effectively constrained at zero and our large-scale asset-purchase programs nearing completion, communication relating to the future path of policy is the main tool now available to shape market expectations, influence longer-term interest rates, and thereby affect the overall degree of monetary accommodation. For this reason, I think it's important that we clearly communicate our goals and policy strategy, and I very much like alternative B's clear portrayal of the key factors that will guide our future policy decisions consistent with our own past behavior—namely, resource utilization, inflation trends, and inflation expectations. That's not to rule out the possibility that some other factors could play a role, but these have been the prime drivers in the past, and I think should and

will be the prime drivers going forward. It is because I expect resource utilization—namely, unemployment—to remain far above the NAIRU for a long time, for core inflation to be below my preferred 2 percent objective, and inflation expectations to remain anchored that my own policy expectations accord with the assumptions in the Greenbook and the constrained optimal policy path in the Bluebook. Of course, we are in wait-and-see mode now. But at this critical juncture we need to be very careful not to add to market confusion about what the main determinants will be of policy going forward, and I fear that, if we are confusing, we may hinder recovery and the attainment of price stability.

I was pleased to see the additional language relating to our decision on agency debt in the revised version of B. I think it's very important to avoid leaving market participants with the impression that our decision not to go up to the maximum of \$200 billion reflects a shift in our intended monetary policy path. And I would support President Rosengren's suggestion that, if there is an informal way to convey to market participants that this was a technical decision rather than a policy decision, doing so would be useful.

On the issue of asset sales, I also agree with Presidents Bullard and Lacker that we should consider using asset sales as part of an exit strategy, especially if we think that the market for MBS is beginning to normalize and function more effectively. I think, as we taper down our purchases over the next couple of months, we're going to get a much better sense of that. But if that's a properly functioning market, I also think it may make sense to begin to actually sell assets when—this is a long way off—we finally exit. I would not necessarily assume that we're only going to let those run off our portfolio rather than sell them.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I favor the language of alternative B. I agree with President Plosser that the passage of time and the confirmation of the upturn in the economy brings exit closer, but the outcomes are still quite unsatisfactory through 2012, certainly by my forecast. And looking at the central tendency of the Committee's forecast, as Brian pointed out, in 2012 we still have resource utilization a couple of percentage points below where we think it should be over the longer run and inflation below where we think it should end up. So being constrained at the lower bound, we're not in any way at an optimal setting, and I think it will be quite a while before we tighten. I had my tightening in mid-2011. I think President Plosser and President Lacker have raised interesting points about how to structure the exit and what to do, and so we have all next year to discuss it. [Laughter] Doesn't that sound like fun?

Paragraphs 1 and 2 to me present the right picture, which is that not much has changed since the last meeting, and that's the consensus here. So I'm happy with that language. Obviously, with my policy expectations, I feel very strongly that we ought to retain the "extended period" language.

With regard to the three factors in here, I think that's a good idea. Those factors are related to our mandate, and to my mind, levels are very important not only because of the legislative mandate but also because they make sense in my economic model. Adding those factors underlines that it's a conditional forecast that talks about the economic conditions, and it gives us some elements to talk about as we edge closer to exit, whenever that might be. I like that the words "anticipate" and then "are likely to" give a certain forward-looking aspect to it, and that's right. We should be thinking about what those factors are going to be in four or eight quarters, not necessarily what they are today. I think that President Lacker is right: The "including" language suggests that something else might be out there. It gives us some flexibility. To my mind, these issues about the dollar and asset prices would play primarily through these three factors that we have here and

wouldn't have an independent role in monetary policy, but the way it is worded gives us a little flexibility in that regard. And I could live with President Lacker's suggestion about putting "very" in front of "low rates of resource utilization." After all, we're justifying exceptionally low levels of the federal funds rate.

I agree with specifying the \$175 billion. That's the path we're on. Why not reduce uncertainty as long as we're clear about the fact that it's because of the market functioning that we're doing this and we're not really pulling back policy. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I'd like to focus my remarks on a suggested handling of the asset-purchase program going forward versus exclusive focus on interest rate movements as the next important policy choice for this Committee. I have been disappointed by an overemphasis on interest rates in the markets versus discussion of the quantitative easing program. I think that this reflects a hangover from a long period of time, 25 years or longer, when interest rate movements defined what this Committee was doing with regard to monetary policy, and that markets have not really fully adjusted to the fact that we have other tools in place that we can adjust to try to implement a stabilization policy. Then at the end, I'll turn to a few comments on issues about the statement and alternative B.

A broad description of monetary policy over the last year to my mind would go like this. In December 2008, almost one year ago, we adopted our near-zero interest rate policy. In January 2009, we naturally switched to a quantitative easing program focused primarily on agency MBS, which if I'm not mistaken, the Chairman has described as relatively standard now around the world for many central banks. And in March 2009, we made a dramatic expansion of that commitment, which we're still living up to and which will not be completed until the first quarter of 2010. The

quantitative easing program has been considered successful, and we saw some estimates yesterday. I think we all understand that there's a lot of uncertainty around those estimates; nevertheless, I think it is generally considered to have been an effective program.

When I talk about monetary policy, I try to exclude liquidity programs that I regard as lender-of-last resort responses to the crisis, such as swaps, the TAF, and commercial paper. All those facilities that are now running down; they reached a peak of almost \$1.5 trillion, but now are all winding down. So I consider those separately, and I consider the asset-purchase program to be the hallmark of our quantitative easing program. This description suggests a certain logic, believe it or not, to current policy, which is to pursue interest rate targeting in normal times and to switch to quantitative easing if the zero bound is encountered. And that suggests that the tightening sequence should go the other way: gradually remove the quantitative easing and then raise rates later as appropriate, given the information that comes in on the economy.

Now, I think one of the key problems from the point of view of the way the Committee is thinking right now is that we do not currently view our quantitative easing program in feedback rule form. There is some talk about it, but we don't really think in terms of adjusting the quantitative easing program one way or another in response to incoming data. We more or less have the idea that we're going to go to our limit that we set in March of last year and then we're going to stay there and let it run off the balance sheet. I do not think that that is an optimal policy. We should begin to adjust that program going forward in 2010, and in particular, possibly sell some MBS as the first indication of a tightening move.

So what are the advantages of proceeding in this direction? I see this as a softer way to tighten policy than making a funds rate move or even than changing the "extended period" language as described in the extra section in the Bluebook this time. If we make any moves on the funds rate

target or really interest on reserves—a phrase that used to be used around here was “ringing the gong”—we’re really making a loud statement that we’re now embarked on a tightening program. People will immediately extrapolate a whole sequence of moves, and that will be a big event when it occurs. Maybe it’s a long way away, as Governor Kohn just said, but that would be a big move. So if we did it this other way, which says, “Okay, we’re going to gradually sell off some of the MBS,” that would be softer. That’s one point.

I also think it allows some optionality during our current period of near-zero interest rates. We can adjust the quantitative easing program in response to incoming information. Possibly, very possibly, the news will not be good, and we might need to adjust in an upward direction. Several people here have remarked about all the uncertainty. I think we all have to keep in mind that there’s just a giant amount of uncertainty around any forecast: It could come in very badly next year, or it could come in very positively. We don’t know. There are a lot of possibilities out there.

Let me say I agree with President Yeltsin–Yeltsin? [Laughter] You told that story, and I was going to avoid that. I agree with President Yellen that we should defend our inflation target on the low side as well as on the high side. Just because the history of the last 25 years was all about ratcheting down inflation, that’s not really the environment that we are in today. Inflation is very low and maybe threatens to go lower, and we have to keep that in mind and be aggressive and attentive on that.

Also, what I’m suggesting would take some of the unusual assets off our balance sheet, and I think that that would be helpful. This institution has not normally held assets like this in the past. It would be better for the institution and better for Fed independence to get out of the business if we could and if we could do it in a way that would support recovery going forward and would also mitigate interest rate risk problems that may accrue later as rates rise. Of course, we could also

combine asset sales or any kind of asset adjustments with a higher funds rate if that became necessary. So that would also be on the table. In particular, if the news came in particularly strong over the next year to 18 months, we'd still have that option on the table.

So I want to think of the quantitative easing program in terms of fed funds rate equivalence. When the zero bound is encountered, then you switch to the quantitative policy, which has, according to our estimates, some stimulative impact. You can think about some kind of mapping that translates that across to—if you could lower the fed funds rate further, how much impact would that have. That's what you're getting out of the quantitative easing program, and that's how you should think about it. Then we would be gradually reducing that accommodation going forward.

For today, I favor alternative B. I don't have a lot of comments about the text itself, but I do think, as a general comment, that we tend to overemphasize arguments concerning resource slack. I'm not saying that we should put zero emphasis on them, but I think we overemphasize them as causal for inflation. I know that we're going to discuss these issues in more detail at the December meeting, and I think we should just wait until then to get further into those comments. I like one aspect of alternative C that President Plosser mentioned, which is paragraph 2. It more accurately reflects that we think inflation is going to stay close to target because we think we're going to take the actions that are going to keep inflation close to target. Instead of leaving us subject to the whims of how the economy is developing going forward, that would better reflect the situation with respect to inflation. So I like that aspect. I don't expect us to adopt it today, but that's something to think about going forward. So thanks very much.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. Like a couple of others, I would have some preference for alternative C; but this is not the day, and I recognize that. The reason I have some



preference is that I do worry about this environment in which we are at such low rates and we are purchasing assets and sowing the seeds of some future imbalances. It does significantly rely on a reversing at the right time. And to the extent that we are prepared to do that, I think the language is good. I would prefer the language sometimes in alternative C—if not today, then at some point as we transition to this. The three factors language is fine. I'm fine with "very low" as well and also with \$175 billion. I am also looking forward to the discussions about how we reverse ourselves and the discussions of asset sales or interest on reserves and how to juxtapose those very hard choices that we have ahead of us, and I think that will be an important part of our future deliberations. So alternative B, as you are describing it, I think will be the way to go with my preferences noted.

Thank you.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Like so many others, I support the policy choice in alternative B. I interpret this as a stay-the-course option. For the most part, I support the language in draft alternative B, but I do have some reservations about the changes in paragraph 3 from the September statement.

I'm not sure I see the benefit of replacing the assertion that the Committee continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the fed funds rate for an extended period with the new statement of low rates of resource utilization, subdued inflation, and inflation expectations. I think it's generally understood that the conditionality of our decisions is based on resource utilization, inflation, and inflation expectations. So I think this could be interpreted as trying to emphasize something new by changing the language in this way, and I suspect it could be interpreted as implying increased focus on the unemployment rate, which of course I'm sympathetic with as a criterion, but we may very well begin to initiate tightening before

there's any substantial improvement in unemployment. So I think this could serve to confuse more than illuminate. So I don't see a percentage in a lot of forward guidance at this point, and I would prefer simply to stick with the language that we used in September.

I am concerned, based on some of my soundings in the financial markets, that we're sort of in a strange loop dilemma. We're not ready to initiate tightening, at least through the policy rate, but changes in the "extended period" language, including maybe even the words around that language, depending on how they're interpreted, could create an unwanted adjustment in rate levels that would amount to tightening. So I prefer that we start to signal when we're much closer to action.

As regards the \$175 billion agency debt purchases language, I would have the concern that this could be misinterpreted, but I think the adjustments between the first draft and the draft we have in front of us adequately explain this as very much a technical matter; so it will avoid misinterpretation or overinterpretation. So I'm comfortable with that. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Mr. Chairman, with a Norwegian mother and Australian father, I'm genetically disposed toward alternative C, given that those are the two central banks—the only thing that they had in common—that recently raised their rates. But I won't argue for it. I don't think it's timely, and I favor alternative B. I did note in the statement issued yesterday by the Reserve Bank of Australia the following. It said that "it is prudent to lessen gradually the degree of monetary stimulus that was put in place when the outlook appeared to be much weaker." One of the things I worry about is that we are finding our statements in constant iterations from a period when we feared depression 2.0, deflation 2.0. What I'm hearing at the table, and looking at the estimates of economic growth going forward, is that depression 2.0 is no longer a risk. But I still hear—perhaps

selectively because I fear it myself and through the retailers that I speak to—that there still is a risk of deflation. I don't think we're out of the woods on that front.

So I'm encouraged by at least the latter part of Brian's presentation. The alternatives have been laid out. On that front I would simply say that I would personally be in favor of asset sales first, and I hope we can flesh that out somewhat. On the other options that have been presented and the way they are being phrased, I would like to consult my team back at home and then perhaps send in a memo, Brian, with some suggestions.

I am concerned about the dollar. Mr. Chairman, you raised this as one of the possible dislocations resulting from low interest rates. Other people who intervened, Governor Tarullo and others, have mentioned the dollar. In thinking this through and how we phrase alternative B, I put on my old hat as a foreign exchange adviser, which I did for four years at Brown Brothers advising corporations in the late 1970s and early 1980s, certainly different times, as to how treasurers should position themselves and how speculators should position themselves. Were I doing that today, I would be advising, say, a large Russian trader like Vitol, which is the largest speculative oil trader—bigger in terms of financial positions in the world than Shell or BP—on a dollar play based on the language you have in this statement because it's not simply the level but also the predictability and duration. So as an adviser, were I reading that language—that we're going to keep rates exceptionally low for an extended period—to me it would be great kindling wood for the carry trade. I do believe that that's a risk and a problem right now. It may be less of a risk for us per se, but if I know that I can borrow dollars cheaply and have this likely for an extended period, I'm going to jam as much into the A dollar, as much into the Brazilian *real*, and as much into these little currencies and move those markets as I can. I do believe it has something to do with the price of oil. I think in a great deal of the pricing of oil currently, given the excess inventory that's on the

seas and given the excess inventory of gas and other alternatives to oil, the dollar is clearly a significant factor.

Therefore, my one suggestion—which I don't think will carry the table, but I'm going to put it out there anyway—is that, if we do change the term “extended period,” to change it for “some time.” I think that would throw enough uncertainty into those who are pursuing the carry trade and, very importantly, to those corporate treasurers who are not repatriating capital because they find the ability to earn a return here is less than what they can earn somewhere else, and it might mitigate the risk of the kind of dollar crisis that we all fear. But that's the only suggestion I have, Mr. Chairman, from a practicable standpoint. Other than that, I would embrace alternative B. Thank you.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. You know, in the old days it wasn't uncommon at this point for the Committee members to begin to say, “I agree with the Chairman,” and have a pretty quick commentary. But since you don't do it that way, I'll just say that today I agree with President Yellen and Governor Kohn. The unemployment rate is headed toward 10 percent or above. Inflation by my forecast is well under-running my inflation guideline of 2 percent. For me this suggests a low likelihood of a policy switch for some time. Frankly, any tightening of the fed funds rate, for lack of a better policy tool, before June 2010 seems unlikely to me. It's not a zero probability. It seems small. Maybe it will be later, as Governor Kohn said. I personally find it very difficult to say that, but it could be true. And this is my view of appropriate policy, by the way, not just a prediction of what the Committee will do. It is a state-contingent viewpoint, and it's not a promise.

In terms of the statement language, I think that the statement should provide an accurate description of how we view the risks and the policy markers. I think the list is good. President

Lacker suggested “very low” resource utilization. That could be okay. Some other possibilities are “unusually low,” “exceptionally low,” “notably low,” and “historically low.” If the unemployment rate goes to 8 percent, it’s still going to be pretty low real resource utilization. So I don’t really think that that has a shocking implication for how policy would change.

But that said, our statement is only one form of communication. You do testimony. Others do that. We have speeches. And small changes in language generate phone calls from a number of people who used to be on the Board asking, “What does this mean in terms of exceptionally low or just low or something like that?” So there are a lot of different ways that we communicate. I think that the statement should be descriptive. I don’t think it should necessarily be proscriptive or even prescriptive. If the events and the risks change and change quickly, policy can change.

In summary, Mr. Chairman, I think that policy is likely to stay— at low rates for an extended period. I agree with alternative B.

CHAIRMAN BERNANKE. Okay. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I also support alternative B. I think the language in B acknowledges the improvement in economic conditions that we saw last quarter but limits the importance of that information in a way that I think is appropriate.

When I read the initial version of alternative B, before we had the benefit of the Bluebook’s explanation in which the staff laid out a communication strategy, I was concerned that the public would not understand why we were making this change in the language in paragraph 3 from our September statement around economic conditions. I was also concerned, as I said earlier, about leading the public to focus on just the three factors that are listed. I think this new language is more flexible in a constructive way, and yet it is still consistent with the staff’s communication strategy that has been laid out.

In regard to the communication strategy, I also want to express my appreciation to Brian and the staff for being so responsive to our request that a communication strategy be laid out that will line up with and support our exit strategy. The sequence of statements that you've given us is very constructive. It will give us time to think about and adjust the language well in advance of our having to take action. So I just want to thank you for doing that. It was very helpful. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. The Ninth District economic conditions are only slightly changed from September. Nationally, economic conditions are only slightly different from what was forecast in the September Greenbook. Given these observations, I believe that the FOMC should follow a policy that is consistent with its statement in September, that is, alternative B.

I'm sympathetic to President Lockhart's concerns about the change in language—about becoming more specific about what economic conditions mean. I'm not sure what has changed economically since September for us to make those changes in wording, and I'm worried that market participants might be trying to figure out what we have seen to make us make those changes. I was very happy to see and impressed by the thoughtful discussion in the Bluebook about future scenarios and language. I think we need to do more of that going forward.

I was concerned, like many others around the table, that the discussion seemed to de-emphasize the use of asset sales as part of our exit strategy, and my own view is that we should be considering such sales seriously, probably well before we begin to increase the interest rate on reserves. Asset sales can have significant benefits. Some of these have been stressed by earlier speakers. One benefit is, I think, just purely financial. Our holdings of agency MBS and agency

debt imply that we're heavily involved in the market for home loans. When financial markets were functioning poorly, this involvement could be readily justified. Now financial markets are functioning much better. It is good time for us to reconsider our involvement in housing finance. Some questions we might ask ourselves along those lines are, "Would holding our portfolio to maturity really enhance the liquidity of these markets? Would sales actually do more to help liquidity in these markets?"

Another benefit, which has not been so much stressed by earlier speakers, has to do with a concern of mine about controlling inflation risk. On the other side of the balance sheet, our asset holdings imply that banks are holding large amounts of excess reserves. These reserves represent an inflation risk generated by potential changes in household expectations. My logic here is fairly simple. If households believe that the price level is about to rise, then they will demand more-liquid deposits in order to make their transactions. The fact that banks are holding so much in the way of excess reserves means they can readily accommodate this extra demand for deposits because they have the ability to do so. The extra deposits in the hands of households become extra money chasing the same amount of goods, which generates inflation. In this way, excess reserves provide a vehicle for household expectations about inflation to become reality.

If you think about this in this quantitative way, the inflationary potential in the system is extraordinary. Banks are currently holding over \$1 trillion in excess reserves. With a reserve requirement of 10 percent, sufficient household demand can generate \$10 trillion in liquid deposits in the hands of the public. Such extra deposits would put enormous pressure on the price level. Why might households expect inflation? The government debt in the hands of the public has expanded over 30 percent in the past two years. This debt, as the Chairman and I discussed earlier, can be paid in only two ways: by the Fed's printing money or by the Congress's collecting taxes. If

the public starts to believe that the Congress will not collect the required taxes, then the price level must rise either today or in the future. Again, excess reserves allow these changes in household expectations about fiscal policy to translate very directly into inflationary pressures.

Now, I want to be absolutely clear. I am not arguing that large quantities of excess reserves imply in any way that we're guaranteed to have high inflation. This argument can be wrong empirically and theoretically. But my concern is that the large quantity of excess reserves makes possible a high inflation outcome. Like market participants, like the people around this table, I currently view this outcome as being of very low probability. Recent events have suggested, though, that our conduct of policy should take account of exactly these kinds of low-probability adverse outcomes.

So I believe that we need to reduce the amount of excess reserves in the system. It is clear that we can do so by selling off some of our existing assets. The Bluebook suggests using temporary absorption techniques such as reverse repos or term deposit facilities. These approaches certainly work toward ameliorating the kind of problem that I've described. However, I'm less confident about their ability to eliminate the problem entirely. These short-term arrangements seem much more vulnerable to sudden shifts in household expectations of the kind that I've sketched. I'm stressing the benefits of asset sales, and they certainly have costs as well. My point is simply that I think that, going forward, we need to do some systematic comparisons of the costs and benefits as opposed to simply downplaying their role in our exit strategy. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Just a couple of comments. Saying that reserves facilitate deposits implies that the banks have to lend the money to the consumers.

MR. KOCHERLAKOTA. Yes.



CHAIRMAN BERNANKE. So they are at the moment not lending, as you know, and if they were to lend, it would show up in inflation but also show up in aggregate demand. So presumably both of our objectives would be moving. Thus it would be appropriate for us to tighten through interest rates and through other mechanisms in that case.

Several people have mentioned asset sales, and I thought President Bullard's point about last in–first out was an interesting way to think about it. I want to point out just the practical point that we are committed now to purchasing through the end of the first quarter. So to do that, you're essentially putting off any interest rate response until late next year. That may be the right thing to do, but it may be inconvenient to do it, given that our commitment to purchase goes into next year. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Let me talk about two things with respect to policy: first, the mortgage-backed securities, which have been much discussed, and second, the third paragraph and the suggestions therein. First, on the MBS—no surprise. I'm pleased that we're ending and announcing the end of our purchases with respect to both MBS and agency debt. On the agency debt side, I don't think it's likely to be misunderstood or misinterpreted, but back-channel communications there could be constructive. With respect to the mortgage-backed securities, I think we may well have overstayed and outstayed our welcome, but at least providing clarity that we are at this moment completing our purchases early next year is useful. It may turn out that rates move even over the intermeeting period, as Brian Sack and Bill Dudley suggested, in anticipation of the end of that program. I think they are anticipating some move, and from our perspective, it's okay. It will be interesting to see what the fiscal and political authorities think about our comfort with that move in thirty-year fixed-rate mortgages and what sorts of responses

they either ask of us or ask of themselves there. As I think we all know, the form and function of the GSEs is likely to get more attention come next year.

The exit problems that we're talking about with respect to mortgage-backed securities factored into some of our thinking about the purchases after these markets started functioning. I guess you should add me to the camp of those who are certainly open minded and even forward leaning about thinking about the net benefits of bringing some liquidity and duration back to those markets at the appropriate time, which is not now. And Mr. Chairman, I think it is at least as important that we don't signal that \$1 trillion or \$1.25 trillion of MBS are permanently off the market. I think that is likely to be unconstructive and restricting of our options going forward if markets come to that view. So not only for our own internal purposes of thinking about it but also given the uncertainties about the mortgage finance market, I think making sure that's one of a number of alternatives that we talk about more publicly at this point would be useful.

Turning to policy in the third paragraph, I think that the additions and the "including" phrase are actually quite useful. They amplify the conditions that underscore our condition-dependent forecast. I noted and giggled like many of you when Brian showed the number of speeches by FOMC members in this intermeeting period, and I guess I'd make a couple notes about it. First, I saw remarkable accord then and, frankly, around this table about the conduct of policy. I think, with the exception of the President who represents the Game 6 loser of the World Series, [laughter]—

MR. PLOSSER. New York?

MR. WARSH. —that there is at least to this point remarkable accord that rates are low and will need to stay very low for quite some time. I'd say that there's a second bit of agreement among those thirty speeches and that is that we are all very humble about what the risks of that forecast are,

very humble and uncertain about the 2010–11 forecast. Where there are differences, they are over what we think the risks are when we get ready to change regimes. What are the risks on the inflation front or on the output front or some other exogenous variable? And I've been impressed by the markets through these 30 speeches. Markets did not bring forward, not even a little bit, the time at which policy could become less accommodative.

What did we see though? Markets became less certain about the degree of what that move might be, and I think in some ways their variance on the speed of that policy accommodation matches at least what I've heard today. I don't view that as a troubling development at all. I think what we're doing in amplifying the economic conditions and referencing utilization, inflation trends, and inflation expectations is making very clear to them that those are uncertainties of ours and theirs, and we aren't trying to prejudge what their own judgments on those should be. So I think that the market for information is improving and will be improved by our being just a little more explicit on those fronts, and I think that variance is, frankly, quite a useful thing.

With respect to the question of whether we should use the word "including," I do think it's useful. While everything, I suppose, could be reduced to these three phrases that speak to our dual mandate, I wouldn't want markets to have the impression that we are immune to what could be going on in the world geopolitically with respect to the foreign exchange value of the dollar or with respect to asset prices. So I think it is credibility enhancing to suggest that we understand the uncertainties in this world, and I would strongly support including it. I don't think that by using the word "including" we're suggesting there is some secret condition that we are hiding from their view. It's just acknowledging those uncertainties. With that, I support alternative B as drafted. While I think it will get a reasonable amount of attention on these three phases, I consider it

consistent with intermeeting speeches and also consistent with the discussions we've had today.

Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I would like first to pile a little onto Governor Warsh's comments about the mortgage-backed securities market. The financial improvement does not extend to mortgage instruments. As recently as the last meeting I was concerned that the lack of a housing finance system would require our continued purchase of the MBS even beyond the first quarter of next year. I've thought about this a lot in the intermeeting period, and I've come to the conclusion that, just as we found with the TALF, there are some markets that our tools can't fix. I don't see how our economy fully recovers without the true resolution of Fannie and Freddie and clarity in the role of government in housing finance and the structure of private-label loan securitizations. In my opinion, it is much more important than homebuyer tax credits, but I don't think either our continued purchase or holding of these securities can substitute for such a policy. With that, I would like to agree with President Evans in his comments, particularly his agreement with President Yellen and Governor Kohn, and support alternative B.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Like everybody, I think, I support the policy actions set forth in alternative B. I do have some concerns about the language, specifically the insertion of the "including" phrase at the beginning of paragraph 3. I didn't have those concerns when Brian circulated the language. I didn't have those concerns after Brian explained to me why the language is in there. But after this meeting, I do have them, [laughter] and let me explain why.

First—this is a secondary point, but I will mention it—I am somewhat bemused by the inflation expectations criterion. For a social scientist to put such weight on such a slippery metric,

whose relationship to outcomes historically is, as I understand it, not particularly well established empirically has just surprised me—something that I hadn't focused on before being on the Board. That's something that I look forward to hearing more about in the December meeting, when we have a full presentation of the academic work behind inflation more generally.

I understand that faith and intuition are important elements in economic policy making. So in and of itself, that concern wouldn't have moved me to speak. I guess where I do have a concern is on the issue of what this phrase will communicate. This is going to be the news out of this statement. Everything else is expected. Some of the things that some people expected to be in here are not going to be in here, and therefore, this is going to be the only thing for people to focus on.

To the extent that the “including” phrase is understood as a positive statement of the principal factors that the 17 people around the table will be looking at over the coming meetings, I think that would enhance communications, and I took it that that was the reason it was included in the statement originally. But unlike Kevin, I didn't find the 30 speeches a wholly positive and productive development after the last FOMC meeting. My own sense from talking to a number of market actors was that they thought that there was confusion within the Committee, which they thought undermined within a very short period of time the FOMC statement itself. I don't think it was serious, and I think people kind of bounced back, and some of the sophisticated analysts did a very nice job on our behalf of teasing out the points of agreement and putting them out to markets more generally. But just having listened to the conversation, I am concerned that the release of this statement with the “including” phrase will be quickly followed by a litigation of the meaning and relative importance of each of these three items in a series of public statements, and when some people start making the public statements, other people are going to be moved to make public statements that kind of go a bit on the other side. Therefore, I am concerned that what began as a

nicely stated, positive assertion of the principal factors that we all, some of us more than others, will be looking at will fairly quickly devolve into a bit of cacophony.

Now, it may be that markets will just look at who the speakers are and say, “Okay. Well, this is nothing new from this person,” and so it won’t be that serious. But to the degree that what we’re looking for in the next three, four, five, six meetings is the capacity to speak more or less with one voice on how we plan to move ahead and eventually how we plan to exit, I fear that we’re setting a not-terrific precedent for our capacity to do so. And so, Mr. Chairman, although I certainly wouldn’t even dream of opposing alternative B if you choose to keep the language in, I guess my own preference would have been to hold this language until perhaps the December meeting, after we’ve had a chance to talk about at least the inflation considerations in a bit more detail, in the hopes that the positive statement at that time would reflect a greater level of consensus among the seventeen of us. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. I support alternative B. I think that people have raised important points, that the changes in the language will be noted, and that people will be trying to parse out what those changes in the language mean. There is some risk associated with that, especially given the fact that the public knows pretty clearly that we are also contemplating the broader question of the possible sequence of our statement language over time. That said, I think the changes themselves are pretty innocuous, and my view would be that there is a little risk there. I think I know which direction the market will move in response to them, but my judgment would be that they are small rather than they are large. The first change just clarifies what the conditioning factors are in terms of our view of exceptionally low for an extended period, and the second change is really just explaining what we are actually

planning to do on agency debt. I don't think we really have an alternative to that, because if we kept in the "up to \$200 billion," what would we do at the next meeting? What would we do at the meeting after that? At some point we would be saying right before the program ends that we are doing up to \$200 billion, but we're not. We are doing \$175 billion. So I think that one we just have to do to clarify the direction.

In terms of the discussions of asset sales, I think the issue of sequence—in what order you do things—as we exit is hugely important. I am not pre-committed to any ordering. I certainly want to hear all of the arguments, but I don't agree at all that asset sales would be gentle to the market at this time. I think asset sales to the market at this time would be completely ungentle, especially given the primary dealer survey results, which showed fewer than 50 percent thought that we would ever do asset sales. I think it is an open-ended question, isn't it, Brian? So to go from something that we would never do to something that we would do first, I think we have to do a lot of explaining and conditioning for the market to understand that it was not a big deal. So if we decide to go down that path, we've got a lot of work to do with the market participants before we do it.

I just want to talk a bit about the possible sequence of actions going forward. One thing we don't ever really have detailed discussions about is what the language means, and I think you have to understand what the language means before you decide when you need to change the language. I have asked a bunch of people about what these words mean, just to get a sense of what the common understanding is. And there isn't one. But I am going to throw out as a strawman my view of what the words mean, because that will then condition when you might want to actually change these words.

My view is that “extended” means that no tightening is likely for more than six months, so the time frame is pretty far out. So in making the consideration today whether I want to include the “extended” language, I have to think about whether it is likely that I am going to want to tighten monetary policy in the next six months. And given my forecast, I don’t see that as likely. I am with Governor Kohn. I don’t see us tightening in 2010. I think we are going to talk a lot about it, but I don’t think we are going to do it for a very long time. The “for some time” language, rather than the “extended period,” implies to me no tightening for three months or more. We are not going to tighten at the next meeting. It is possible that we could tighten the meeting after that, but that is sort of the frontier. And the “before long” language seems to me to be signaling that we are likely to tighten at the next meeting, in fact.

Now, what gets confusing is when we use two things together, as in alternative C in Brian’s handout. We removed the word “exceptional” and changed it to “low levels of the funds rate,” and we also changed the timing from “extended period” to “for some time.” I think that is going to be totally confusing to the market. I think the market would actually take that as that we are tightening at the next meeting. We are moving from exceptionally low to low immediately, and then we are going to stay at low for a meeting or two. So I think we have to be very careful when we change the language that we change one element, not two simultaneously. Then, I think we will get ourselves in a lot of trouble. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much. Well, most people supported the actions in alternative B. That is my preference as well. Let me talk about some of the issues of language that were raised and see if we have any desire to make changes. I don’t think anybody at all mentioned the first paragraph, which is a first. So perhaps forget that for now. On the second paragraph, there were a couple of suggestions to substitute the language in paragraph 2 of



alternative C. I think it would be risky to do that. I would note one logical issue, which is that the C (2) language suggests a somewhat different conditionality, which is that policy will be focused on price stability, which it certainly will be, but it would be kind of strange to introduce conditionality in two places with a somewhat different mix of factors. But I recognize that issue.

So now let's go to the third paragraph, where the main concerns are. To avoid for a moment the most important sentence, one or two folks had concerns about being explicit about the \$175 billion. The Vice Chairman suggested that we have to do it in order to be transparent. Could I maybe ask Brian Madigan and Brian Sack or anyone else if they have any thoughts on the market impact of this statement?

MR. MADIGAN. Go ahead, Brian.

MR. SACK. Well, we did reach out and take a poll of various players in the agency debt market. It seems as though the expectations are generally between \$175 billion and \$200 billion, maybe a touch higher than we had been thinking, so I think there is a modest surprise here. But it is modest. I wouldn't worry about it. Could agency spreads back up a little? Sure. Will there be a lot of talk about why and what this means? Yes, absolutely.

CHAIRMAN BERNANKE. The concern—we tried to respond to President Yellen's suggestion—was to make sure that nobody confused this with an intentional tightening. And I guess I would like reassurance that we have explained what we are doing here. Right?

MR. MADIGAN. I agree. I think our sense is that overall the statement is not likely to have much of a market impact.

MR. SACK. Right. And we changed the language exactly to accomplish that, to convey that this is consistent with what we have been doing already.

CHAIRMAN BERNANKE. Okay. Vice Chairman.

VICE CHAIRMAN DUDLEY. If there is starting to be a reaction to this, there may be some value to having a background conversation to make it clear that this is not a change. I wouldn't do it beforehand because we don't know that we have a problem. But if the market does take it the wrong way, which I think is a low probability, you might want to have a background conversation.

MR. LACKER. Or we can make 30 speeches.

VICE CHAIRMAN DUDLEY. That is probably not sufficient. [Laughter]

CHAIRMAN BERNANKE. All right. So let's go to the main sentence, which is about the extended period. First, a couple of comments. I do think we need to maintain the "extended period" for now. I think most of the people around the table agreed with that, given the macro outlook.

I am sensitive to President Fisher's comments about the carry trade. In fact, I tried to underline those issues when I gave my own remarks. President Fisher, you had asked Nathan yesterday about this issue, and he pointed out that there is a good carry trade and a bad carry trade. The good carry trade is the appropriate response of asset prices to low interest rates essentially, and that shows up in exchange rates. It shows up in other asset prices as well. The bad carry trade is when people behave as if they know for sure that interest rates will be low forever and exchange rates will be stable, or at least they go in a one-way direction. I have always had difficulty with the latter because it is not an arbitrage. It is an irrational response. But all I can say is that this is something we really do need to pay attention to. I agree with that, and I mentioned this in my remarks. So it is a concern, but we also have our macroeconomic concerns. President Fisher.

MR. FISHER. Mr. Chairman, I simply wanted to point that out. It is not clear to me, if we were to have a run on the dollar in an intermeeting period, what we would do. Would we raise interest rates? What would we do? So all I am saying is that we might consider this. I am not going to argue for it. I don't think it is going to carry, but I just wanted to be sensitive to it. About the only thing we can do is the way we express ourselves, to say or to have the Secretary of the Treasury say—as every Secretary, not just Tim, has said forever—“I believe in a strong dollar policy.” That doesn't sound anymore in the marketplace. It has been said so many times by so many people it just doesn't ring. So I wonder what we would do under these circumstances, and the only point I wanted to make is, if we are worried about this, if we are at a tipping point or when we get to that, that maybe a little language change might help because it takes away the permanence. It shortens and builds a lexicon for the period, but I don't want to make too big a deal out of it. I am concerned about it.

CHAIRMAN BERNANKE. I think there are various language things that policymakers, including myself, President Trichet, and others, could use to address this to some extent more credibly. Of course, we don't want to talk about this here—it is a bad word—but there is always intervention, which seems to have an effect.

Okay. So on the sentence—Governor Tarullo, I think, raised the possibility of delaying the conditionality. I thought most people were in favor of taking this step. Are there others who are concerned? I recognize that any change is risky, but we can't avoid the risk. At some point we have to move in a direction. Maybe this is not the right moment. But is there anyone else who is concerned?

MR. LOCKHART. I spoke against it.

CHAIRMAN BERNANKE. President Lockhart, that's right. Yes, sorry.

MR. KOCHERLAKOTA. I spoke against it, too.

CHAIRMAN BERNANKE. All right. So we have some. I think, though, that the majority are still—I think there is a bit of risk, but—

VICE CHAIRMAN DUDLEY. There is a bit of risk, but there is always going to be risk when we change language. The problem with that, of course, is that we lock ourselves into the statement more and more, which then makes it even a bigger risk when we change language. So it's a very bad dynamic.

CHAIRMAN BERNANKE. That's right. That was part of the way I was thinking about this.

MR. KOCHERLAKOTA. For me it would be helpful to hear an explanation why it is now suddenly so useful to be so specific as opposed to in the past. That is something I don't understand.

CHAIRMAN BERNANKE. The reason is, essentially, that what we have now is interpreted as a sort of an unconditional commitment to—even though we say “economic conditions will warrant”—it seems like an unconditional commitment to hold rates for six months or more, as the Vice Chairman was saying. I think doing this helps to emphasize the conditionality of our commitment, so that we would be able to change if economic conditions changed notably. And although there may be some adverse reaction because people think this is a step to exit—I think that's a risk—it will also be an increase in clarity and transparency. Yes, Governor Tarullo.

MR. TARULLO. Just to clarify or to restate what I said earlier, I agree with Bill Dudley. I think that, all things considered, sooner rather than later is actually better because you are not locked in. But the risk associated with the statement is not simply a function of the statement

itself on the day it is released. And that was the point—we are in a position to minimize the riskiness associated with the statement, and I would just urge everybody to bear that in mind, particularly over the next 72 hours.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. I'm having a hard time appreciating in some precise way what we mean by the risk in terms of this language. I understand that markets react to every change that we make, and then sometimes the reaction is undone. Sometimes it changes things. But I am of the opinion that, when we have a pretty good approach to monetary policy, we are pretty forthright in describing what we are doing. Markets somehow figure out what we are doing, and these are well within the lines in terms of those types of changes.

CHAIRMAN BERNANKE. Well, I think the risk is that the markets will move forward the tightening path, which I don't think is consistent with expectations in most of the Committee.

MR. EVANS. Then, you go out and somebody talks and somebody really important talks and it gets clarified. When people rely extraordinarily on the statement, then we begin to feel locked in.

CHAIRMAN BERNANKE. The counterargument is that we can only put this off. All right, recognizing that there is some risk, we will have to see what happens.

The last question I want to ask was raised by President Lacker first, and I think others, which is the phrase “low rates of resource utilization.” Now, ironically, the reason that I was in favor of dropping “very” was in deference to President Lacker. [Laughter] I thought that it would be a concern that we could measure output gaps, distinguish between the output gaps that are very large and just ordinarily large. In that spirit, I was concerned that adding “very” would

then create a cottage industry, figuring out the dividing line between “very” and “not so very.” That was part of my concern. I can be persuaded if the Committee approves that.

But the other possibility I would just raise would be that this sentence very much echoes the terms in paragraph 2. Paragraph 2 already refers to longer-term inflation expectations being stable and inflation being subdued. And I think it actually elaborates because it talks about longer-term inflation expectations and about forward-looking inflation projections. So in that spirit, it wouldn’t be particularly elegant, but we could replace “low rates of resource utilization” with “substantial resource slack,” if that was preferred. Someone liked that.

MR. PLOSSER. I like “low rates of.”

CHAIRMAN BERNANKE. You like “low rates of utilization.”

MR. PLOSSER. Better than “resource slack.”

CHAIRMAN BERNANKE. Okay. All right.

VICE CHAIRMAN DUDLEY. That is more an output gap idea, I think.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I would point out there is going to be a cottage industry no matter what.

CHAIRMAN BERNANKE. Right.

MR. LACKER. The question is, What is the object of their endeavors in their cottages?

[Laughter] So they are going to be focusing on “low” versus “very low.” It seems as though “very low” is the right thing to focus their attention on. It seems like a more accurate characterization.

MR. TARULLO. This, again, seems to me to be pre-judging rather than to have a criterion, which is, just to reiterate, what my concern is about this whole endeavor.

MR. PLOSSER. But they speculate that on what we mean anyway.

MR. LACKER. Well, I would just reiterate that we are conveying a set of conditions under which we anticipate retaining low rates, and narrowing that range of conditions only reduces the amount of pre-commitment. So it makes it a more inclusive, broader, weaker, statement in some sense.

CHAIRMAN BERNANKE. I think it makes it a stronger statement because it could mean that, even if inflation is low and expectations of inflation are low, that if unemployment falls below 8 percent, then we'll start to move, which might be possible but I wouldn't want to commit to that.

MR. LACKER. I go back to the way the sentence reads. It doesn't say "only if economic conditions are." It just says "if." It is if this, then low—it doesn't say "if not this, then raising rates."

CHAIRMAN BERNANKE. Well, I think that is how it would be interpreted. Okay. I will try both possible options. If there is not majority support, we will just stay with what we have. So, first, I didn't see much support for "substantial resource slack." Was there anybody? Nobody wants to support that.

VICE CHAIRMAN DUDLEY. Groundswell.

CHAIRMAN BERNANKE. Groundswell is supported. All right. We'll be democratic. What is the view on "very"? Who favors "very"? Anyone else? All right. So I think we have about as much of a consensus as we can get. Well, having gone through this at some length, we have ended up with the status quo. [Laughter] Any further comments or thoughts on B?

All right. Again, I appreciate the commentary. I think the points that were raised in the policy round, considering not only today's statement but also about how we will exit and how we

will communicate it, are very important. And, of course, the staff will continue to work on both the policy regime and the communication associated with it.

If you will call the roll, please, Matt.

MR. LUECKE. This vote will encompass the alternative B policy statement on page 3 of the packet on monetary policy alternatives, as well as the directive for alternative B on page 9 of that same packet.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
Governor Duke	Yes
President Evans	Yes
Governor Kohn	Yes
President Lacker	Yes
President Lockhart	Yes
Governor Tarullo	Yes
Governor Warsh	Yes
President Yellen	Yes

CHAIRMAN BERNANKE. Okay. Thank you very much. I remind you that the revised projections, if you want to make revisions based on information known as of today, are due by 5:00 p.m. tomorrow. And I remind you that the next meeting is December 15 and 16. After the meeting is adjourned, there will be lunch available in the Anteroom, and Linda Robertson will give us an update on congressional developments. Meeting adjourned.

END OF MEETING