

**Meeting of the Federal Open Market Committee on
July 30–31, 2013**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, July 30, 2013, at 2:00 p.m. and continued on Wednesday, July 31, 2013, at 9:00 a.m. Those present were the following:

Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
James Bullard
Elizabeth Duke
Charles L. Evans
Esther L. George
Jerome H. Powell
Sarah Bloom Raskin
Eric Rosengren
Jeremy C. Stein
Daniel K. Tarullo
Janet L. Yellen

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

Jeffrey M. Lacker, Dennis P. Lockhart, and John C. Williams, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

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

Thomas A. Connors, Troy Davig, Michael P. Leahy, Stephen A. Meyer, Daniel G. Sullivan, and William Wascher, Associate Economists

Simon Potter, Manager, System Open Market Account

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

James A. Clouse and William Nelson, Deputy Directors, Division of Monetary Affairs, Board of Governors; Maryann F. Hunter, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Jon W. Faust, Special Adviser to the Board, Office of Board Members, Board of Governors

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

Joyce K. Zickler, Senior Adviser, Division of Monetary Affairs, Board of Governors

Michael T. Kiley, Thomas Laubach, and David E. Lebow, Associate Directors, Division of Research and Statistics, Board of Governors

Joshua Gallin, Deputy Associate Director, Division of Research and Statistics, Board of Governors

Edward Nelson, Assistant Director, Division of Monetary Affairs, Board of Governors; Stacey Tevlin, Assistant Director, Division of Research and Statistics, Board of Governors

Laura Lipscomb, Section Chief, Division of Monetary Affairs, Board of Governors

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

Marie Gooding, First Vice President, Federal Reserve Bank of Atlanta

David Altig, Jeff Fuhrer, and Loretta J. Mester, Executive Vice Presidents, Federal Reserve Banks of Atlanta, Boston, and Philadelphia, respectively

Lorie K. Logan, Senior Vice President, Federal Reserve Bank of New York

Todd E. Clark, William Gavin, Evan F. Koenig, Paolo A. Pesenti, Julie Ann Remache,¹ and Mark Spiegel, Vice Presidents, Federal Reserve Banks of Cleveland, St. Louis, Dallas, New York, New York, and San Francisco, respectively

Robert L. Hetzel and Samuel Schulhofer-Wohl, Senior Economists, Federal Reserve Banks of Richmond and Minneapolis, respectively

¹ Attended Tuesday's session only.

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July 30 Session

CHAIRMAN BERNANKE. Good afternoon, everybody. We will have a more extensive tribute to Governor Duke tomorrow at the luncheon.

MS. DUKE. More extensive than that?

CHAIRMAN BERNANKE. More extensive. [Laughter] But I thought I should acknowledge that today is, barring any unforeseen emergencies, the last FOMC meeting for Betsy. In her five years on the Board, Betsy has attended 41 regular FOMC meetings. Her first, with truly excellent timing, was on August 5, 2008. In a policy discussion at one of these meetings a couple of years ago, Governor Duke said that her personal objective was to experience “normal” here at the Federal Reserve. Well, as that well-known student of the London School of Economics Mick Jagger once said, “You can’t always get what you want.” [Laughter] So it looks like, Betsy, after five years at the Fed, you’re going to have to search for normal elsewhere. Betsy, I and all of your colleagues here are certainly going to miss you, your good sense, your energy, your unparalleled institutional knowledge, and your insight. It may have not been normal around here in the past five years, but you have to admit it was interesting. So we wish you the very best and thank you for your service.

MS. DUKE. Thank you. [Applause]

CHAIRMAN BERNANKE. And, again, we will have additional opportunities to fete Governor Duke tomorrow at the luncheon. But let’s turn now to item 1, “Financial Developments and Open Market Operations,” and I’ll call on Simon Potter.

MR. POTTER.¹ Thank you, Mr. Chairman. Over the past few months, long-term Treasury rates moved up notably, in large part because of Federal Reserve

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

communications at the JEC testimony and June FOMC meeting that investors interpreted as pointing to a less accommodative stance of monetary policy. These developments led to a substantial and abrupt pullback across many global markets from trading strategies that had been predicated on a low and stable interest rate environment. Subsequent communication by central banks has helped arrest some of the adverse market dynamics generated immediately after the FOMC meeting and has provided support to risk assets as confidence in the economic outlook has remained relatively stable. Recently, uncertainty over future Fed leadership and policy continuity may have added a new source of market volatility. Meanwhile, market expectations appear to have coalesced around even odds for a reduction in the pace of asset purchases at the September FOMC meeting. And while receiving significant attention, Detroit's bankruptcy filing has not led to any meaningful additional underperformance of municipal debt, including for state and local governments with significantly underfunded pensions.

Exhibit 1 begins with a broad review of changes in financial market conditions. Longer-term Treasury yields rose significantly, and the primary mortgage rate reached 4.31 percent over the intermeeting period, roughly 75 basis points above levels seen last September. Fed communications early in the period were viewed by investors as signaling a less accommodative stance of policy and led to a sharp increase in interest rate uncertainty. Subsequent Fed communications were viewed on balance as reaffirming the commitment to a highly accommodative policy, with portions of the rate increases retracing, but overall interest rate uncertainty remaining elevated compared with levels reached in the spring. In addition to recent reassuring policy communications, relatively stable investor confidence in the domestic outlook supported gains in U.S. equities and a narrowing of credit spreads.

The top-right panel captures the intermeeting volatility of rates through the lens of forward nominal interest rates. Up until the Chairman's NBER comments, forward rates rose by as much as 94 basis points. The concentration of the largest moves in the three- to six-year sector is consistent with greater uncertainty regarding the path of short-term interest rates. In fact, early in the period the risk-neutral market implied path of the fed funds rate breached 50 basis points in the first quarter of 2015, two quarters earlier than ahead of the June meeting.

One of the more notable features of this episode has been the extent to which communications about the balance sheet impacted market prices sensitive to the path of policy rates. In the most recent dealer survey and as shown in your middle-left panel, we asked respondents to rate the importance of various factors behind the repricing of short rates during the period, on a scale of 1 to 5, with 5 assigned to very important factors.

Dealers consistently assigned the highest importance scores to uncertainty around the policy path but also assigned high scores to changing investor views on asset purchases. This perhaps indicates that many investors and traders do not view the two policy tools as necessarily independent and instead understand communications as either signaling a tighter or looser overall stance of policy.

The apparent change in many investors' outlook for monetary policy, or the revelation that some investors don't understand the current policy mix, is not reflected in the measures of policy expectations we obtain from the dealer survey. Notably, investors have expressed doubts about how the Committee was interpreting and reacting to incoming data, and whether the Committee was still operating within a framework in which it would be willing to push inflation temporarily above 2 percent in order to promote a more rapid return to maximum employment. Greater uncertainty about the Committee's reaction function might also explain the increased market sensitivity to economic data observed over recent months.

The most recent dealer survey suggests that dealer economists view the unemployment condition on liftoff as a threshold. The middle-right panel shows the average dealer probability distributions of the timing of reaching 6.5 percent unemployment under the assumption the inflation thresholds are not crossed and of the first rate increase. Dealers place high probability on the unemployment rate threshold being reached before an increase in the target rate.

In considering the importance of various other factors behind the repricing of the path of short-term rates, dealers assigned a low score to economic data and had mixed opinions on the importance of technical or other factors such as carry trade unwinds.

A staff memo to the Committee detailed how certain market dynamics served to amplify or accelerate the rise in both short- and long-term yields, possibly leading to some overshooting. Although market dynamics were not the primary factor behind the repricing of fixed income from early May, it is an open question as to whether this amplification could occur again. Further, it is possible that investors' fear of a reemergence of these dynamics might be a constraint on prudent risk-taking, or alternatively investors might now feel "immunized" from these effects.

Many market participants thought that the sell-off was exacerbated by a decline in marketmaking by the sell side. Although this is a common complaint, it is possible that changes in the regulatory landscape and financial industry structure along with decreased risk appetite at large dealers might be introducing new market dynamics. Staffs are currently analyzing the evidence on these issues. As shown in the bottom-left panel, internal measures of value at risk (VaR) utilization at dealers declined despite the large jump in rate volatility, suggesting dealers may have lowered their exposure to duration risk before or during the recent rate increase. Dealers are generally operating well below current VaR limits, which have tightened across most dealers over the past two to three years.

As seen in the bottom-right panel, high-yield and investment-grade bond funds experienced significant outflows in June, and funds with longer-duration holdings were particularly susceptible to redemptions. As a whole, fixed-income funds saw their largest monthly outflows in dollar terms in at least 20 years. TIPS funds also met with heavy redemptions relative to the size of that market, and the extent of investor selling strained TIPS market liquidity. These liquidity strains likely lowered market-based measures of inflation compensation early in the period and have made

them somewhat more challenging to interpret. More recently spot and forward measures of inflation compensation have moved up from the lower end of their ranges in recent years.

Your second exhibit focuses on the global market effects of changing investor perceptions of the U.S. monetary policy outlook. As rates and volatility in U.S. markets rose, investors reduced exposure across a broad range of global assets; higher-risk and less-liquid assets were particularly hard hit. As seen in the upper-left panel, investments in emerging economy bonds and equities suffered sharp losses immediately following the FOMC meeting.

Though many of these markets would later recover from these losses, it is worth noting that investors appear to be drawing a greater distinction between emerging economies based on underlying fundamentals. As seen in the upper-right panel, the currencies of countries with weaker fundamentals—proxied here by larger current account deficits—have experienced some of the larger declines against the U.S. dollar in recent months. This development appears to reflect increasing investor focus on how reduced policy accommodation in the U.S. will impact emerging economies with varying degrees of reliance on foreign capital.

In addition to the U.S. policy outlook, investors have focused on signs that Chinese authorities are increasing efforts to rein in credit growth and the implications such efforts could have for the Chinese economy. As shown in the middle-left panel, total financing growth in China has declined, and some interpreted the recent spike in interbank funding rates as signaling the PBOC's determination to curtail credit growth. The timing of the spike probably added to some of the adverse global market dynamics observed in late June.

The remaining three panels turn to developments in other advanced economy financial markets. As seen in the middle-right panel, U.K. and German 10-year yields increased early in the period with U.S. yields. In contrast, JGB yield volatility moderated notably, in part because of the Bank of Japan's willingness to adjust operational parameters to address market functioning. The adjustment of JGB traders to a new equilibrium after a large policy shock has been an important factor in this moderation.

The greater stability in the JGB market has reportedly improved investor sentiment and helped underpin Japanese equities and a weaker yen during the most intense period of global market turbulence, as shown in the bottom-left panel.

The final panel of the exhibit examines policy developments in the U.K. and euro area, where short-term interest rates, which had been affected by the global repricing, reacted to communications designed to stabilize policy rate expectations, including additional information on forward rate guidance. The July ECB statement noted that the Governing Council expected to keep key interest rates "at present or lower levels for an extended period of time." The statement led to some initial flattening of the expected rate path. This can be seen in the sharp rise in the Eurodollar–EURIBOR

spread in the panel. Notably, the Bank of England's July statement released on the same day caused implied rates on short sterling futures contracts to decline almost as much as those on EURIBOR futures even though it only referenced the possible introduction of forward guidance. This might reflect the fact that market participants expect the Bank of England to introduce a quantitative form of forward guidance.

Your third exhibit reviews primary dealer expectations for the path of balance sheet policy. The Desk's survey of primary dealers suggests that expectations for total asset purchases have held fairly steady. The median expectation is for around \$1.2 trillion in asset purchases to be completed over this year and next, which has been the case for several surveys.

As seen in the top-left panel, the probability distribution for the size of the portfolio at the end of 2014 has become more concentrated in the \$3.5 trillion to \$4.5 trillion range. The top-right panel illustrates that dealers overwhelmingly expect the monthly pace of purchases to be slowed later this year, with close to 50 percent probability on the first reduction occurring at the September meeting. Higher probability is placed on a first reduction at meetings with a scheduled press conference, as dealers see the Committee as likely wanting to provide additional communication.

Regarding the implementation of a reduction, anecdotal conversations with contacts largely reflect an expectation that the new pace would begin at the start of the first full calendar month following the FOMC decision, consistent with the directive for alternative C at this and the previous meeting. In terms of the allocation of a reduction to each asset class, just under one-half of the survey respondents expect equal dollar amount cuts in the first reduction. Most of the remaining dealers expect \$5 billion more in cuts to Treasuries relative to MBS in order to bring the new purchase paces to an equal level. As seen in the middle-left panel, the second reduction in the purchase pace is expected to be symmetric.

Asset purchases are generally expected to be completed at the end of the second quarter of 2014. Following the completion, nearly all dealers expect between four and six quarters to elapse before the first increase in the fed funds target rate, as shown in the middle-right panel. Dealers have consistently expected a significant gap between these two events, and dispersion across dealers has decreased over the past several surveys.

Your final exhibit turns to recent Desk operations and measures of market functioning, given the notable rise and increased volatility in interest rates. As shown in the top-left panel, production-coupon MBS yields increased more than comparable Treasury rates, and option-adjusted spreads widened.

The recent rise in interest rates resulted in an extension of duration in the mortgage market by around \$570 billion as measured by 10-year equivalents, exclusive of SOMA holdings. This extension led originators, servicers, and many agency REITs to sell a substantial amount of MBS to manage duration risk. Many

REITs were reportedly focused on maintaining leverage ratios at prior levels in order to signal disciplined risk-management practices and ensure stable access to funding.

Some of the duration and convexity risk associated with fixed income that would have been borne by private investors in the absence of asset purchases was absorbed by the SOMA portfolio. As shown in the top-right panel, the rise in yields and spreads in recent months has resulted in a \$200 billion decline in SOMA's unrealized gains since May.

The July survey of primary dealers provides evidence that market participants believe MBS market volatility has had some effect on liquidity, as shown in the middle-left panel. Dealers' responses indicate market functioning in production-coupon securities is similar to its average level over the past four years, though their ratings of market functioning declined since the question was last asked in March. Further, dealers note that market functioning has deteriorated somewhat since the start of purchases last September. Some dealers stated anecdotally that market participants were less willing to put on positions amid a more uncertain liquidity environment and that bid-ask spreads have deteriorated for larger trade sizes.

The deterioration in MBS market functioning has had some effect on Desk MBS purchase operations. The middle-right panel illustrates that the average spread between the executed price and the worst price offered in Desk operations widened somewhat, suggesting reduced market depth for Desk trades. Nonetheless, as shown in the bottom-left panel, implied financing rates have become somewhat less negative over the period, which suggests continued orderly settlements in the MBS market, including the Desk's purchases.

In response to the moderate deterioration in liquidity and the rise in mortgage rates, the Desk has decreased individual trade sizes and shifted the allocation of purchases across securities to better facilitate execution. For example, roughly one-half of our 30-year purchases are now in the 4 percent coupon.

Turning now to the Treasury market, despite the increased volatility, Desk contacts describe market functioning as orderly, and most measures of liquidity are within their longer-term ranges. However, anecdotal commentary from dealers does suggest some deterioration in depth of liquidity in off-the-run securities.

Regarding our Treasury operations, the bottom-right panel shows that average offer-to-cover ratios have remained within recent ranges, with the exception of the 20- to 30-year sector. The decline in this sector has taken place alongside higher volatility and a modest widening in bid-ask spreads at the long end of the curve. The Desk will continue to monitor the recent trends to assess whether adjustments to the size, distribution, and frequency of purchases is warranted.

Finally, the Desk took notable steps to improve the robustness of its operational capacity. First, the Desk initiated the Treasury Operations Counterparty pilot program with four small broker-dealers. The successful settlement of the first trades

with the new counterparties last week marked the start of the program. Second, the Desk is beginning to conduct operations in Treasury securities and agency MBS from its new site housed within the Chicago Fed, where the breadth and frequency of Desk operations will ramp up quickly over the coming months. Along with split operations for custody and settlement and a backup some open market operations housed at the Richmond Fed, the Chicago site represents our commitment to leveraging the Federal Reserve System's infrastructure in our operational risk-management efforts.

Julie Remache will now discuss the possibility of establishing an overnight reverse repurchase facility as a tool to use in conjunction with interest on reserves for managing money market interest rates.

MS. REMACHE. Thank you, Simon. The Committee received a memo ahead of this meeting, prepared jointly by Board and New York staff, outlining details for a potential overnight reverse repurchase agreement (RRP) facility. The memo described how such a facility might work, drawing parallels to interest on excess reserves (IOER).

In concept, paying interest on excess balances held at the central bank could create a hard floor for relevant market rates. In practice, the firmness of that floor depends on a number of factors, including whether the central bank rate is offered to a sufficiently wide set of market participants. In the case of IOER, a number of key money market lenders are unable to access the IOER rate, and we observe that market rates are below, often well below, the IOER rate. That spread can be attributed both to costs related to arbitrage, such as the FDIC assessment on all bank liabilities, and imperfect competition arising from credit or other counterparty constraints, which limit the extent to which institutions are willing and able to compete away rate differentials.

An overnight RRP facility would expand the range of market participants with access to an overnight risk-free instrument from the Federal Reserve, beyond depository institutions with direct access to IOER. As with IOER, under the fixed-rate, full-allotment framework, counterparties with direct access to the facility should generally be unwilling to lend to private institutions at a rate below the facility rate. They may also be willing to engage in arbitrage to pull other market rates toward this rate. The facility could have a stabilizing effect on money market rates because the facility rate is pre-announced and because counterparties can adjust their participation daily. This may reduce volatility and tighten the linkage of rates across money markets. It could also strengthen the bargaining position of market participants with access to the facility in their own negotiations for overnight lending.

While these possible dynamics suggests an overnight RRP facility could be a useful tool in managing overnight interest rates, the memo highlights four important open issues. First, the appropriate level for the facility rate relative to the IOER rate, the fed funds target, and other market rates is a key determinant of the effect of the facility on money market rates and intermediation flows. Further staff work is needed

to evaluate options in terms of their effectiveness in meeting the Committee's policy objectives.

Second, the average degree of take-up from the facility and its variation is difficult to anticipate *ex ante*. The staff can foresee reasonable scenarios in which the facility has a meaningful impact on market rates but usage would be small—for example, if the facility establishes a strong reservation rate from a key set of money market lenders—and others scenarios where usage would be large—for example, if money market mutual funds are able to pass along more of an increase in their returns to shareholders than banks do to depositors, in which case one might see a notable shift of depositors from banks toward money market mutual funds.

Third, if the facility, or any reserve draining facility for that matter, leads to further declines in brokered fed funds volumes, it could increase the risk that the fed funds effective rate would be dominated by idiosyncratic trading activity and so would become an ineffective proxy for the broader level of overnight market rates. Such an outcome could raise the need for the Committee to consider an alternative policy target.

Finally, a key issue is whether the current set of RRP counterparties is sufficiently wide to have the desired effect on market rates. Counterparties have been expanded significantly over the past several years and now include 18 DIs, 4 of the 12 FHLBs, Fannie Mae and Freddie Mac, and 94 of the largest money market funds, in addition to the 21 primary dealers. Nevertheless, further expansion could be helpful.

In order to exercise operational readiness, the staff has included aspects of a facility like that considered in the memo in the small-scale, real-value RRP exercise planned for August. For example, the staff plans to exercise the ability of various systems to accommodate a fixed-rate, full-allotment style operation with same day settlement. These procedural adjustments are unlikely to garner much attention by market participants or counterparties, as the adjustments either affect aspects of the operation, which are not visible to the public, or are within the scope of normal activities of this kind. This exercise falls with the current authority to conduct small-scale, real-value exercises and, in addition to confirming the ability to implement an overnight RRP facility like that considered in the memo, would be valuable as part of general RRP readiness because it provides more options within our current RRP planning efforts.

Looking ahead, if Committee interest in an overnight RRP facility is high, the staff could pursue a number of additional initiatives to prepare and gain further insight into such a facility. First, the staff could begin work to identify additional types of counterparties for further expansion. Second, the Committee may wish to consider other variations of planned RRP exercises, possibly also including ones that may result in larger usage of the facility. And, third, the Committee may wish to develop a broader communication plan about the facility. If the Committee would find it helpful, the staff could prepare a memo that would discuss options for

additional exercise and communication strategies for the Committee's consideration at a future meeting.

At this time, Simon and I would be happy to take any comments or questions regarding the overnight RRP facility or recent market developments. Thank you.

CHAIRMAN BERNANKE. Thank you very much, and many thanks to the staff who worked on this project and prepared the memo. It was very intriguing. Questions for our colleagues? Governor Duke.

MS. DUKE. Just some comments on this reverse repurchase agreement facility. I think this is an extremely important facility and that it could be a very powerful tool because it would let us conduct monetary policy directly through the shadow banking system, in addition to going indirectly through the banks. One of the hardest things when you start learning banking is to begin to think of deposits as actually borrowed money because that's what they are. And, we tend to think of reserves as something different than borrowed money, but that's all they are. So unless somebody thinks the fractional reserve system is really working as it was supposed to historically, it would make more sense to begin to think of these reserves as ways to fund our balance sheet and then choose between reserves, term deposits, reverse repurchase agreements, or any other instruments that we can come up with to select the one that seems best suited to meet our policy objectives rather than the typical profit motive that banks use. And I think we could influence rates both in our role as lender—with the asset purchases or the discount window—and equally through our role as borrowers, using these other facilities. So I would very much urge the development of the tools and the testing of them, both operationally and for their effect on rates. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. I favor moving forward with such a facility. I think it has several potentially attractive features that Julie touched on. First, I

think there is a good chance it will enable us to tighten control of the money market rates.

Second, it's likely to result in cost savings as the interest rate on the facility is presumably going to be lower than the IOER rate. And, third, because the interest payments will be spread broadly throughout the financial industry, this facility will undercut the argument that through the IOER we are subsidizing the banks.

The tricky part is how to move from the small-scale test to the more large-scale, full-allotment test without this being taken as a signal that liftoff is close at hand. I think one possibility is to introduce this relatively soon as a technical tool designed to reduce our interest payments and broaden participation rather than part of some sort of liftoff mechanism. I would favor the small-scale test in August, and I'd like to follow that with large-scale testing as soon as possible to learn more about what the demand is for such a facility at a given rate and how the rate on the reverse repurchase facility can affect other money market rates, which we really don't know. We really don't know what the demand is, and we really don't know what the unintended consequences are if we suck a whole bunch of money through this facility. How it is going to affect other investor behavior?

The facility increases our control of short-term rates and reduces our costs. It's also going to reduce the cost associated with having a large balance sheet. I think this, potentially, would have implications for our appetite for future balance sheet increases should the economic outlook disappoint, and it could affect the urgency we may feel about the need to normalize our balance sheet later. The better the tool we have available, the lower the cost of a large balance sheet. And I think it is important to explore and develop this potential tool as quickly as possible. Finally, the rate on such a facility would be under the governance of the FOMC because this is an open market operation, and I know that would avoid some of the ongoing

governance issues that we have with the IOER. It might be very possible if this worked well to actually migrate, and this rate could potentially be the rate that the Committee sets over time.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I'll try to be brief because I'm going to echo a lot of things Bill said. This is a very promising potential tool for us, and it should be explored further. The way we've been thinking about doing monetary policy during the exit process is to adjust the interest rate on excess reserves and thereby influence overall credit conditions. I think there are reasons to be concerned about slippage between that policy tool and overall credit conditions. We see that even with the fed funds rate. And the other concern that I have is the governance issue that the interest on excess reserves is set by the Board of Governors and not by the Federal Open Market Committee. I think that using the overnight reverse repurchase program as our main tool has the potential to forge a tighter connection between that rate, our policy choice, and overall credit conditions, especially if we start to expand the range of counterparties as Julie was describing. As the Vice Chairman just mentioned, it also has the advantage of being set by the Federal Open Market Committee.

I certainly favor going ahead with further study on this. I'm a little concerned about doing a large-scale experiment soon because of the signaling aspect of it. I encourage careful work on the communications side to make sure that we don't fall into that. Communication though, as we all know, is a challenging exercise. I certainly do favor going forward and gaining confidence in this, but we have to be careful about not sending too much of a signal. It is very nice work, a very nice memo.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. I was left feeling somewhat puzzled by this memo, certainly not for the lack of energy and thought given to it by the excellent New York staff, but I think the body of the memo leaves one struck with the uncertainty about a number of things. First of all, I think the authors enumerate conceptually some of the determinants of the spread between the IOER and overnight RRP rates but with no quantitative sense of their importance. I think there is ample evidence of uncertainty about the quantitative effects, particularly the possibility of fairly dramatic shifts between money market funds and bank deposits—shifts that can be quite large for very small errors in our setting of the spread between IOER and the overnight RRP rate. And then the question is where to set RRP rates. Now, the puzzling aspect of the memo is that you get to the conclusion, and what it offered as next steps are all operational. I was eager to hear a proposal to do more research, to actually do some field work to figure out what determines the overnight RRP spread to the IOER. I would have thought the staff would want to seek a deeper understanding of what's going on in that market and what determines that spread before undertaking operational experiments.

The broader question here is that it's not clear to me from this memo what this tries to solve and what you want to control; you want to control something for a purpose. There's a reason for that. We lived for decades with a volatile and variable spread between the target fed funds rates and the overnight RP rate, and it didn't seem to bother any of us. Obviously, if that spread widens, we raise the fed funds target rate by more to compensate for it. And if we think all of the interest rates in the world are keyed off the overnight RRP rate and there's a spread between that and the thing we control, we can just offset whatever that spread is with the instrument we control. More broadly, the traditional approach in central banking is to pick a rate and peg it and let the market figure out the appropriate spreads to various other instruments in

markets where some vagaries of the participants, capital treatment, and the like make the rate slightly different than the rate we're pegging. So you're asking us to go down the road of pegging two rates. Why stop at two? And is there some inefficiency about this spread that we're trying to fix? I just wasn't left with a clear picture of the welfare economics of what this is about and what we're trying to achieve. I could strongly support further research in this area, but I would discourage going ahead with operational preparations, given what we know about our intervention at this point. I do see the advantages of an overnight RRP rate as a target to supplant using the IOER as our main instrument for reasons that President Kocherlakota and Vice Chairman Dudley enunciated, but I don't think we're ready to move ahead with operations at this point.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I share some of the comments that have already been made, so I'll just be very brief. I too see the appeal of having an overnight RRP rate as our target. I think that there are some philosophical as well as other reasons why that might be attractive, and so I, like Jeff, would very much encourage some more research and more exploration.

I'm a little bit concerned about moving too operationally in the following sense. One of the things I thought the memo did was suggest that if we do this, particularly if we start doing this on a large scale, it's not just the signaling about our policy intentions, but we may do further damage to the federal funds market in terms of undermining its effectiveness and its ability to revive that at some future date. After all, this Committee has still iterated that its ultimate objective is to use the federal funds rate as our primary target, and if we do something that risks undermining the effectiveness and mechanism of that market, we could find ourselves backed

into a corner if we're not careful. So I'm a little bit worried about not doing it in a way that undermines the ability to have a choice later on about which instrument we want to use. That's one part where I think we need to be very careful.

And the other is the governance issue, which I remain a little bit concerned about. Right now, we have what amounts to a gentleman's agreement, if you will, that we will discuss the funds rate target, and that would be translated into IOER. We need to be a little clearer, though. It's not obvious to me that the governance that we have implies that the FOMC would set this rate. I would think that if that's not the case that we ought to assure ourselves that that's the way it would operate before we lock ourselves into a different strategy. Those would be my two concerns that I think we need to be careful about.

MR. POTTER. One point—the memo really wasn't focused on changing the operating target.

MR. PLOSSER. No, but my point was that if we further destroy the funds rate market, we may not have any choice but to do that.

MR. POTTER. I think it's clear that there are a lot of things going in the fed funds market. Such a facility could affect those dynamics. Whenever we get close to normalizing policy, we will face those same set of problems whatever tools that we use. In terms of research that we could do, it's clearly an area where there has been a lot of thought. One of the things we learned from interest on excess reserves is there are a lot of fine market details that don't appear in the models that we have. We have a feeling that testing now helps us learn about those details in a time when it's easier to react than when we're trying to normalize policy rate.

CHAIRMAN BERNANKE. On the matter of governance, I think we can just get a legal opinion on that, but it seems fairly clear that this would be an open market operation. It is, therefore, subject to the FOMC.

MR. PLOSSER. I just wanted to make sure that that's clearly understood.

CHAIRMAN BERNANKE. Well, of course we would verify that.

MR. LACKER. Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Yes. The kind of research that I had in mind is, you've got treasurers out there who manage their book, and they put deposits with us and they do RPs. What are they thinking? Why don't they bid up the rate? Just identify a slew of them, and go sit with them. Go sit with the money markets. Go talk with those guys. I'm sure you talk to them often, but it is field research that's a little more concrete than let's try a facility and see what the quantities are.

MR. POTTER. Completely, and part of the small-scale testing that we would do within the existing authorization would be to have those conversations—and some nod to this within the minutes would make it easier. And we feel that those would be very important for us to understand some of these other issues. Ideally, we'd like to resolve as much of that as soon as possible so we can come back to you and say, "This is what we've learned. This is as much as we can learn from this type of field research, and these are the choices that you face now to learn more about the facility."

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Actually, Governor Stein seems to be anxious to say something.

CHAIRMAN BERNANKE. Governor Stein.

MR. STEIN. Thank you, Mr. Chairman. I was going to more or less agree with the point that I think to really understand how this works, you're going to have to operate it at a scale and just think about it concretely. Suppose you have a rate of 25 basis points on the IOER and 10 basis points on the facility, and you ask yourself the question of where the rate will settle. I think the answer to that question is basically the same as asking the question: How much reserves will be drained out of the banking sector and taken out by the others? Because the more drained out of the banking sector, the more they'll push the rate toward the 25. I think we can ask market participants, but we will only really learn about that quantity in some meaningful way as we start cobbling the rates in that direction.

MR. POTTER. President Lacker is right. We can learn something from talking to treasurers and other market participants, but then we face the basic issue of introducing a new instrument into money markets and how people will react to that. That's one of the reasons that we noted that you could get large changes in money market patterns of behavior by introducing this facility.

MR. STEIN. It's the scale that's key.

CHAIRMAN BERNANKE. One other way to do research is to look at other central banks, which have similar facilities.

MR. POTTER. We have, and that's referenced in the memo. You can see they have very idiosyncratic reasons for the operating frameworks they have based on the money market structures they have.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. I want to rotate back to this. But you had slide 19, and I read through the written update of the dealer survey sent out on July 26—which

we don't have in front of us—and a sentence caught my eye, which is reflected a little bit in slide 19. I'm just going to read a sentence to you: “Since the current asset purchase program was announced in September, the dealers view market functioning conditions as having deteriorated somewhat.” But then it goes on to say, as you referenced, that dealers noted higher volatility and a reduction of liquidity in agency MBS. I think that's probably true in the Treasury market as well, maybe—to a little lesser extent.

MR. POTTER. Yes.

MR. FISHER. Which then led me to think that unconventional policy is exacerbating the shortage of collateral in the marketplace. So be it. That's where we are. And that, again, rotates us back to this discussion. There have been some regulatory changes, and the fact is that if we're only dealing with DIs, then we're dealing with about 30 percent of the market or so. I mean, there are so many other instruments, as you mentioned. But I do think we have to at least acknowledge subconsciously that, in part, this is a problem of our own making. The question is, what do we do now? On the “what do we do now,” I just took pages 8 and 9 from Julie's excellent memo, and I want to basically comment on what other people have already said. I think it's important to run small-scale real asset value testing, as you mentioned, Simon. It's important for us to identify additional counterparties. It's quite a menu you mentioned, Julie, but again, these are big, deep, broad markets. On the third question of large-scale, real-value testing with some prior communication, obviously it's a useful exercise, and it's important in the end. But I agree with you, Simon—I think I heard you say, or I certainly interpreted it that way—that the market could incorrectly assume something from this if we do it too quickly. And what I worry about is it might assume, even though I'm not personally against it, that interest rate hikes are imminent. So I worry, given our communications issues right now, that might be stretching a

little bit. The idea of communicating the RRP facility in concept without large-scale testing—as you say, useful for refining operational plans, avoiding the risk of the communications issue—is, however, wrapped up with our communications problems. I don't think it's a near-term exercise. And then, of course, we need to examine operational enhancements. That's an ongoing exercise. I just wanted to answer the five points, Julie, that you raised in the memo, and then point out, again, that we created this in a way ourselves. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Governor Duke.

MS. DUKE. Just one other thing on the timing of the use of this tool. It seems to me that when our rate target for fed funds was going up this would be a tool that might help bring the floor up in the range that we have in the fed funds. Am I right about that?

MR. POTTER. That is one of the intentions. We think the conceptual theory is there for that. It is clear we want to understand how people would view that facility. But it is very hard to think of a conceptual reason why, if a wide enough number of counterparties had access to this facility and we used it to firm the floor for the fed funds market on the fed funds target, it would not work—conceptually.

CHAIRMAN BERNANKE. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. Yes, we are still a ways away from, of course, being in the stage of raising rates. But it could be that we are all going to have to ask ourselves the question, is the fed funds rate really the right metric to measure how we are influencing overall credit conditions when we get there? If we are raising this rate that has such broad reach and is not showing in the fed funds rate, maybe there is something wrong with the fed funds rate and not something wrong with this. But we are long way away from that.

MR. POTTER. The new data collection that will start at the end of this year will allow us much better insight into that.

CHAIRMAN BERNANKE. President Fisher, did you have another comment?

MR. FISHER. Not on this subject, but if people want to continue this discussion—

MR. POTTER. On the collateral shortage—

MR. FISHER. Yes, sir.

MR. POTTER. —there is a lot of discussion of that. We can find very little evidence that it is affecting any of the market dynamics right now. Going forward, with some of the regulatory changes still to take place, that is definitely a possibility. And one of the things we have heard from market participants is, if we look at some of the tools we have as draining tools, there will be more capacity there because of the desire to take collateral from it.

MR. FISHER. Well, to add one thing to that. I read through very quickly last night's Treasury release on expected funding requirements; they are coming down. Again, I want to make sure that we are not getting into a position where we are taking too much out of the market.

MR. POTTER. Yes. They are definitely coming down, but they are still issuing quite a lot.

MR. FISHER. Okay.

CHAIRMAN BERNANKE. Governor Duke.

MS. DUKE. Just to jump in one more time.

CHAIRMAN BERNANKE. I'm sorry—we were not finished?

MR. FISHER. We are not finished with repo, I don't think, are we?

MR. TARULLO. No. I think Betsy is still on repo.

CHAIRMAN BERNANKE. I'm sorry, Governor Duke, please go ahead, and then I'll come back to you, President Fisher.

MS. DUKE. One last thing on the fed funds market. As long as they can lend \$2 trillion to us, the banks have no reason to lend to each other, and that's what the fed funds market is. So I just don't see, as long as we are borrowing at these levels, where there is going to be a fed funds market. When we are not borrowing at these levels, the fed funds market will pick it up, and then this tool wouldn't work. But it seems to me that we've got to come up with some substitute for that sort of mechanism.

CHAIRMAN BERNANKE. President Fisher, I'm sorry, I interrupted you.

MR. FISHER. On a different subject, your slide 16 indicates to me—and correct me if I'm wrong—that maybe the message is getting through that there is a separation between asset purchases and when we increase the base rate. And as you pointed out, look at the difference between them as we go through time. There seems to be more of an understanding that these two are separate. Is that a correct reading?

MR. POTTER. If you literally just look at this page, then we are doing a great job. Everyone understands everything that we are doing, and you wouldn't be able to understand anything that happened in markets over the past nine weeks. But, given this, we can communicate to a lot of the former fed staffers. [Laughter]

CHAIRMAN BERNANKE. It works in practice; it just doesn't work in theory.

MR. FISHER. You know my views on theory, though.

CHAIRMAN BERNANKE. Yes, sir. Any other questions or comments? [No response] Let me again thank the staff for their hard work. I want to associate myself with Governor Duke and others who supported going forward with this. I think it would allow us much better control

of rates. It would align us with practice of other major central banks. It would increase confidence in our ability to manage our balance sheet and to exit at the appropriate time. I think it would improve the governance situation. It would reduce some of the concerns we have about relying entirely on banks and paying banks as opposed to paying interest to a broad range of counterparties. There is no reason why the funds rate has to be the target. It may well be that a possible outcome is that we even eliminate the IOER, for example, and make everybody go through the reverse repo. But in any case, we can certainly determine the target based on what works in practice.

In any case, what a number of people have identified is the question of how we test it without testing it because there certainly will be differences between large-scale unlimited operations and small-scale operations. That will be an issue that we will address as we go forward, but I think the sense of the table was that further analysis of both the operational technicalities as well as how this might work in terms of affecting money market rates are worth pursuing, and we'd like you to go do that and come back to us with further thoughts at subsequent meetings. Are there any other questions or comments? President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I have a question. It's related to the last discussion between President Fisher and Simon. There is this gap that seems to emerge between the dealer survey and the understanding among maybe a broader range of market participants. Has the Desk given any thought to how we might be able to go out and gather information from that broader range of market participants?

MR. POTTER. A main part of our job is to try to do that. That is not as formal as the dealer survey. We have a project to see whether we can expand the number of people that we survey. We have carefully looked at other surveys, and I think Bill in his briefing will show you

some other survey results that are out there, which draw in a different set of market participants. From those surveys, we don't see that large a difference on these types of questions. Some of those surveys do not have rigorous questions, so at times it is hard to really understand what the answers are. The CNBC survey, for example, has some questions you would probably find quite hard to answer, so it's often hard to interpret it. But I think trying to get a more systematic read for you of some of the color we get from market contacts might be helpful. And that's what we try to do in the briefing a little bit. What we can't tell is whether this is market dynamics, and eventually this will win out, or it is something where there is a big gap between the expectations that are really in markets and what we can interpret from these surveys.

MR. KOCHERLAKOTA. Thank you.

CHAIRMAN BERNANKE. If you have heterogeneity in markets, this of course will never completely solve the problem.

MR. POTTER. That's right.

CHAIRMAN BERNANKE. But that's a very useful observation. President Evans.

MR. EVANS. Well, the other source of information that we look at carefully every quarter is the financial stability report and all of the market information there. And I assume that the answer is the same; there is nothing that we can point to in that wealth of analysis that would have tipped us off as to the different market reaction in spite of this wonderful page.

MR. POTTER. One of the things will be for us to understand some of what the dealers have done, and that's why we're working on that right now. I think integrating some of the confidential supervisory information, which is how we got the VaR utilization, would be helpful. But it is something we are still working on, so it might have more in there than you know right now because we've only been integrating it for a few years.

CHAIRMAN BERNANKE. All right. Seeing no other hands, I need a motion to ratify domestic open market operations since the June meeting.

MS. YELLEN. So moved.

CHAIRMAN BERNANKE. Without objection. Thank you. Item 2 is the “Economic Situation.” Let me call on David Wilcox.

MR. WILCOX.² Thank you, Mr. Chairman. I’ll be referring to the single exhibit under the cover sheet titled “Forecast Summary.” As you can see from the top-left panel of your exhibit, the data that we have received over the past six weeks suggest that real GDP increased about ½ percentage point less at an annual rate during the first half of the year than we were expecting in June. Tomorrow morning, when the BEA releases its initial estimate for GDP growth in the second quarter, we will find out if it agrees, and we will also get our first glimpse at their effort to expand the concept of investment to include a wider range of intangibles. We have not received any advance word from the BEA as to whether it will deem New York City’s mayoral race as meeting the definition of “investment in entertainment originals.”

Probably the one issue that we spent more time wrestling with than any other during this forecast round was whether we should continue to forecast a pickup in GDP growth during the second half of the year on the same order of magnitude as we had built into the June Tealbook. In the end, we convinced ourselves that we should, based on the following considerations.

Some of the negative news about GDP growth during the first half of the year pertained to real PCE. We interpreted this news as partly reflecting a lower underlying pace of spending, and that part of the weakness we carried through fully into the second half of the year. But we interpreted the remainder of the negative surprise in PCE growth during the first half as reflecting a faster response by households to the tax increases that went into effect at the start of the year. With more of the adjustment in household spending having been accomplished during the first half of the year, less should be left to be finished during the second half. All told, we did revise down our forecast for the growth of real PCE in the second half of this year but only by about half as much as we had taken down our estimate of PCE growth in the first half. More broadly, as Glenn Follette discussed in his briefing for the Board yesterday, a diminished drag from fiscal policy accounts for about one-half of the acceleration in the growth of real GDP from the first half to the second half, both directly through government purchases and indirectly through tax effects on PCE.

Another locus of weaker-than-expected news was in residential construction. As you know, the most recent report on housing starts and permits was disappointing.

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

On the single-family side, we were frankly puzzled by how weak the starts number was. We generally look to permits as providing the more reliable indicator of underlying activity, and the latest reading on permits suggests that single-family construction continues to trend up, though perhaps at a slightly less robust pace than we previously thought. We are a little more concerned about the multifamily sector, where both starts and permits have been unusually choppy in the past several months but seem to have decelerated of late. Although the fundamentals remain strong for multifamily construction, builders may now be expecting a greater share of rental demand to be met by single-family rather than multifamily units. While we cannot know for sure, we are not inclined to attribute much of the downward surprise to residential construction last month to the increase in mortgage interest rates since May. For one thing, our models do not predict such a rapid pass-through of higher rates to activity; for another, homebuilder sentiment remains quite upbeat. Pending another report or two, we are more inclined to see the weak reading on starts in June as mostly a statistical head-fake.

With regard to inventories, the indicators that we follow do not point to any substantial overstocking, so we do not view the unexpectedly weak inventory investment in the first half as signaling a persistent downshift in stockbuilding. Along with our projected path for net exports, the rebound in inventory investment offsets most of the weakness in consumption and construction.

After the July Tealbook was closed, we received the advance durables report for June. Overall, that report was a little weaker than we expected, causing us to shave another tenth from our estimate of second-quarter GDP growth; however, because orders surprised us to the upside, we made no change to our third-quarter forecast.

To provide another perspective on our near-term forecast, the top-right panel shows results from a factor model that uses the information from a large number of activity and price indicators to generate forecasts of near-term real GDP growth. As you can see, the model also predicts a marked pickup in real GDP growth in the third and fourth quarters—indeed, with an average second-half pace that is almost $\frac{1}{2}$ percentage point higher than the corresponding staff projection.

Before leaving the near-term outlook, I will note that our sectoral analysts, working from the bottom up, would have generated an acceleration in GDP that exceeds the one we showed in the Tealbook by a few tenths of 1 percentage point. In the end, though, the iron thumb of bureaucracy, in the person of yours truly, tamped their enthusiasm just a little, to arrive at what I judged to be a better overall balancing of the risks to the forecast.

Turning to the medium term, our outlook for GDP growth is substantially unrevised from the June Tealbook, as the changes we have made to our key conditioning factors have themselves been relatively small and offsetting. First, our fiscal policy assumptions are essentially unchanged from June. We have federal purchases posting another significant decline in the second half of this year, partly because of the incidence of furloughs, which we think will be concentrated mostly in

the third quarter. Thereafter, the restraint from fiscal policy diminishes, contributing to the pickup in economic growth not only in the second half of this year but in the next couple of years as well. Second, financial conditions are little changed on net in this forecast, taking account of the higher stock market. With almost no revision to projected GDP growth in 2014 or 2015, the downward revision to output that we made in the near term leaves the level of real GDP at the end of 2015 about $\frac{1}{2}$ percent lower than we had it in June. As we made no adjustment to our supply-side assumptions this round, this lower GDP path implies a correspondingly wider GDP gap.

Regarding the labor market, the incoming data have been a little better than we had expected in the June Tealbook and point to continued gradual improvement in labor market conditions. In particular, while the unemployment rate in June came in just a few basis points above our expectation, the level of nonfarm payroll employment surprised us by 100,000 to the upside. The better-than-expected labor market report was an important factor in persuading us not to make a larger downward revision to our near-term outlook for GDP.

Over the medium term—and in line with previous Tealbook forecasts—we expect that labor market conditions will continue to improve. As you can see from the middle-left panel, the unemployment rate declines a little less this forecast than it did in the June Tealbook, reflecting the lower projected path for real GDP. We expect it to cross the 7 percent mark around the middle of next year, and anticipate that it will fall below the Committee's $6\frac{1}{2}$ percent threshold in the second quarter of 2015, one quarter later than in June. At the end of 2015, our current projection is $\frac{3}{4}$ percentage point below the forecast we made in September, when the FOMC first tied its asset purchase decisions to an improvement in the labor market outlook. On the payroll side, as shown in the middle-right panel, the revisions relative to June are quite modest.

Finally, the data on core inflation have come in a bit higher than we expected in June, though our estimate of core PCE inflation in the second quarter—shown in the bottom-right panel—remains below 1 percent. As discussed in a box in the Tealbook, we continue to expect core inflation to step up in the second half as the influence of various transitory factors recedes. Further out, the inflation forecast is little changed from June; in particular, we expect headline inflation to run slightly below core over the medium term—at about $1\frac{1}{2}$ percent per year—as projected declines in crude oil prices put downward pressure on retail energy prices. While we have no reason to expect the BEA to throw us any curve balls with respect to inflation in tomorrow's annual revision, we cannot rule it out. Steve will now continue our presentation.

MR. KAMIN. This summer, while most Washingtonians were worrying about whether their picnics would be rained out or whether the Nationals would ever get above .500, my colleagues in the International Finance Division were focused on a critical issue for the global outlook: How much of a bump would William and Kate's baby provide to the U.K. economy? Estimates by Britain's Centre for Retail Research put increased sales of food, alcohol, and memorabilia at £240 million,

which, assuming standard multipliers, would boost third-quarter U.K. GDP by one-half of one-tenth of 1 percent. Our analysts are hopeful that the flagging euro area will also adopt a fertile royal couple, although it is unclear that this is what Mario Draghi had in mind when he said the ECB would do “whatever it takes” to save the single currency.

If the royal baby is generating plenty of excitement, the global economic outlook, not so much. As in the June Tealbook, we estimate that after registering just 2 percent in the first quarter, total foreign GDP growth edged up to a still-subdued 2¼ percent pace in the second. And going forward, we are still projecting that foreign economic growth will rise only tepidly, to 3½ percent by 2015 as recovery in Europe and faster expansion in the United States provide the impetus for a pickup in the emerging market economies. We’ve received some significant news since your previous meeting, but this news has had less of an effect on our baseline outlook than on our appreciation of the risks to this outlook.

On the plus side, we are finally seeing some signs of life in the advanced foreign economies, or AFEs. In Japan, rising industrial production and strengthening business confidence point to nearly 4 percent growth in the second quarter, just about matching its strong first-quarter performance. Second-quarter growth in the United Kingdom was announced at 2½ percent, well above our previous forecast. And perhaps most surprising of all, it now looks like the projection for the euro area that we wrote down in June—which had the economy bottoming out from its extended recession around the middle of this year—will actually come to pass. Industrial production is picking up, consumer confidence is rising, and in July the euro-area PMI broke into expansionary territory for the first time since January 2012.

These positive developments have not led us to revise up our longer-term forecast for the AFEs, as prospects for the fundamental drivers of future economic growth—easing financial stresses, reduced fiscal drag, and continued accommodative monetary policy—remain largely unchanged. But the strength of the recent data encourages us that the economic recovery we have been projecting is not only possible but even likely, and our uncertainties around this part of our forecast have narrowed accordingly. To be sure, the pace of growth looks to be extremely slow: In our forecast, the level of real GDP in the United Kingdom does not get back to its 2008 pre-recession peak until 2015, and euro-area GDP does not reach its previous peak until 2016, roughly eight years after the global financial crisis started. Moreover, there are plenty of opportunities for the recovery to be derailed, especially in the euro area where, to repeat the standard mantra, “we are not out of the woods yet.” Nevertheless, we are feeling more confident about the outlook for the advanced foreign economies than we have for some time.

The same cannot be said for the emerging market economies. EME real GDP growth stepped down from nearly 4 percent in the second half of last year to only 2½ percent in the first quarter of this year. We estimate that growth picked up to 3¼ percent in the second quarter, but this is still weak by historical standards. In our forecast, EME economic growth rises to 4½ percent by the end of this year and stays

at that pace thereafter, mainly reflecting the acceleration of the U.S. and other advanced economies. However, the uncertainties surrounding this forecast are quite wide.

To begin with, the factors accounting for the slowdown in EME growth earlier this year remain somewhat murky. Certainly, the weakness in the exports of these countries to the advanced economies—as well as the weakness in the exports of other EMEs to China, which in turn has suffered faltering sales to the advanced economies—explains much of the decline in EME GDP growth. But it is not clear why EME exports have slowed so much in the past couple quarters when the economies of the United States and the other advanced economies, taken as a whole, have actually accelerated somewhat. Accordingly, although we are hopeful, we are not completely confident that once economic growth in the United States and the AFEs picks up, the pace of expansion in the EMEs will pick up as well.

Our uncertainty is especially acute in the case of China. Newly released data indicate that Chinese real GDP growth stepped down from 8 percent in the second half of 2012 to 7 percent in the first two quarters of this year. We are assuming that this slowdown mainly reflects cyclical factors and that economic growth will move back toward its trend pace of 8 percent by early 2014, supported by a revival of export growth. But we are also aware that China's rate of potential output growth is slowing as its population ages, it nears the technological frontier, and as economic growth rebalances to prioritize consumption over investment and exports. In response to the weakness of the past couple of quarters, we have again marked down both China's potential and its actual GDP growth over the period about $\frac{1}{4}$ percentage point. However, it is entirely possible that the pace of potential growth is moderating even more than we think, with corresponding implications for the future path of actual GDP. A related risk is that, in an environment of rapid credit expansion and growing indebtedness, slowing output growth would impair loan performance, triggering a bust in China's property sector and perhaps more generalized financial distress.

Besides the implications for the foreign outlook posed by in the recent weak data for the emerging market economies, a second key focus of our concern is the reaction of global financial markets to the Federal Reserve's communications of the past few months. As Simon has discussed, central banks in the advanced foreign economies have generally managed to limit the run-up in domestic interest rates, but the emerging market economies appear to have been hit harder by the recent bout of volatility, with sharp capital outflows, currency depreciations, and hikes in bond yields. So far, we've marked down our outlook for EMEs only a touch in response to these developments. The higher bond yields will obviously depress activity, as will the tightening of monetary policy by some central banks intent on restraining currency depreciation and thus containing inflation. However, this contractionary effect should be at least partially offset by the stimulative effect of currency depreciation on these countries' exports.

The more difficult question is what will happen to emerging financial markets when the Federal Reserve and other major central banks start exiting from their accommodative policies in earnest. In our baseline forecast, these actions are sufficiently well anticipated that they do not generate much additional volatility. Moreover, they do not occur until the global economic recovery is much further advanced, so that any adverse effects on EMEs of higher interest rates are offset by the benefits of stronger trade. However, we were surprised by the financial developments of the past few months, and I would be surprised if we were not surprised by additional bouts of volatility in the future. David and I will now be happy to answer your questions.

CHAIRMAN BERNANKE. Thank you. Questions for our colleagues? Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. Two questions. David, you said your conditioning assumptions hadn't changed much, but the Tealbook did note the changes in the monetary policy assumptions. There are two pretty significant ones—from \$750 billion in purchases to, I guess, \$1.2 trillion, and no sales of agency MBS. Reading the Tealbook, it's a little hard for me to parse out—apples to apples—if those assumptions on monetary policy hadn't changed, what effect would that have? That's my first question. The second question is, what are you making of the stubborn level of oil and gasoline prices? That sort of helped us with supporting consumption in the spring, and now it's going the other way despite still pretty weak economic activity—how is the staff parsing that in?

MR. WILCOX. On the first, if we had done an “all else equals” exercise at the end of the June meeting and said, “Okay, we're going to shift the purchase assumption from \$750 billion to \$1.2 trillion,” we would have shifted down the trajectory of longer-term interest rates. We were confronted with the reality, however, that the world has moved differently, and so we had to figure out how we were going to take that into account. By and large, what we said was we think that the market has departed from our previous assumptions. In part, we think that adjustment brings forward changes that would have occurred anyway, for example, in the term premium; we have always had a projection that the term premium would rise from its extraordinarily low

levels. And we thought that part of what was going on had accelerated that, but we had it tapering back into our prior assumption about where the term premium would end up. In addition, what looked to be the case was that the funds rate expectations moved up, and in our assumptions we assumed that the market would eventually learn on our baseline that we were right, not them.

VICE CHAIRMAN DUDLEY. I guess I was asking a slightly different question. If the monetary policy assumptions hadn't changed, how much bigger would have been the downward revision in the GDP forecast? Because right now you have a lot of stuff mashed together. You have all of the economic developments, plus you have the monetary policy assumption change. It's very hard, for me at least, to parse out what the forecast would look like if you hadn't changed the monetary policy assumptions. I can't tell how much of the downgrade is being offset by the monetary policy assumption. Now, maybe you're saying that the market moves sort of trumped the monetary policy assumptions, so we didn't really factor the monetary policy assumption changes into the forecast.

MR. WILCOX. Exactly. We had to deal with the reality of the financial market conditions, and I'd factor in there as well a stock market that was higher than what we had assumed would be the case.

VICE CHAIRMAN DUDLEY. Right. But presumably if we really were only doing \$750 billion, financial market conditions would have been a lot tighter than they are today, right? And the economy would presumably be weaker. I just felt that was a little unclear in the Tealbook. I was a little confused by that. How about the oil price question?

MR. KAMIN. On the oil price, first of all, part of it is just due to the rise in international oil prices, like Brent, in response to a combination of concerns about future supply as a result of

the issues in Syria and more recently in Egypt, as well as actual supply disruptions in several economies including Iraq, Nigeria, and Libya. Those are the main factors that have put some upward pressure on international prices, even as a little bit of greater pessimism about the global outlook in China has probably put some offsetting downward pressure. But all told, Brent has gone up some \$4 or so.

VICE CHAIRMAN DUDLEY. Yes. But my question is more, how is the staff thinking about the effects of that on the consumption path. Because they got this benefit in—what was it, April, May—from gasoline prices falling a lot. Now gasoline prices are rising quite a bit. Is that important, or you just viewed it as transitory?

MR. WILCOX. Yes. Just two things. Gasoline margins are now a little high as a result of the run-up, and we think those are going to come back some. The way we have accounted for this is through our standard mechanism. It results in, all else equal, a little lower real disposable personal income and, as a result, a little weaker impetus to household spending going forward. But it is, quantitatively, pretty small.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. My question was the same as President Dudley's about the monetary policy assumptions. I would like to just push a little harder. If I remember correctly, in August of last year, the presumptions of the staff memo said that, for \$500 billion of additional purchases, you get somewhere between 0.1 and 0.2 percentage point reduction in unemployment after two years and about the same or a little less rise in inflation after two years. So by adding roughly \$500 billion of purchases to your assumption, going out only until the middle of next year, I am presuming that the effects of the additional LSAPs were pretty trivial. Is that a simple way to think about the fact that other stuff really didn't make much difference in your forecast?

MR. WILCOX. I'm sorry, I lost the train of your question.

MR. PLOSSER. So my presumption is, going back to the memo in August—0.1 to 0.2 percentage point on unemployment after two years.

MR. WILCOX. Two or three years.

MR. PLOSSER. Okay. Now if I just talk about adding those purchases and asking what the effect is after a year, I'm just going to prorate it out in some sense, it's going to be less than that.

MR. WILCOX. Yes.

MR. PLOSSER. And even after two years or three years it may be 0.2, but nothing really showed up in your forecast as far as I can tell. Am I right to extrapolate those assumptions to what you used in this exercise to get there? I'm just trying to figure out how to walk through this.

MR. WILCOX. Again, I think one way to think about it would be as a sort of “as if” experiment. Coming out of the June press conference, we had a plausible scenario for purchases, and we decided that it was close enough for us, so we built that into our baseline trajectory. And before we had any other information, all else being equal, we would have, therefore, taken down the trajectory of the unemployment rate by a couple of tenths after about three years and added—it's about one-third; it's a much smaller effect on inflation—a few basis points to our inflation trajectory. So think of that as step one. But in fact, market conditions have changed. So step two is we now observe the actual market conditions that show up on the computer screen. Those are quite different than what we would have predicted based on an all-else-being-equal type of exercise. And to use President Dudley's word, that “trumps” what our “as if” experiment would have left us with as a set of conditioning assumptions.

MR. PLOSSER. That answers my question because I just wanted to be clear that you would continue to use those rough estimates that we had before and that you factored those in. There was no basis for you changing those—I always thought they were pretty small anyway.

MR. WILCOX. Correct.

MR. PLOSSER. Okay. That's fine.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. A question for Steve. Could you update our thinking on how China's slowdown channels through to any real discernible effect on our GDP? There is, as you know, a great deal of angst out there about what actually is going on and going to happen in China. Yet I think it's a reasonable assumption that we're indirectly affected, although our export channel is not that dependent. Can you talk about that a bit?

MR. KAMIN. Sure. First of all, you're certainly right in highlighting that we are quite uncertain about the outlook for China, and that our prospects for China are very important to prospects for other emerging market economies. So even though China per se does not have a huge weight in our exports, to the extent that it affects other countries, it is important. Because we were concerned about China, and because we're quite uncertain about its outlook, we actually included an alternative scenario in the Tealbook on that subject in which we looked at the prospect of—what at least used to be called, although it's not as popular a phrase anymore—a hard landing in China, where instead of Chinese economic growth moving back up toward 8 percent by the end of this year, it falls from its current pace of 7½ percent to around 5 percent for a couple of years. And in that scenario, basically we had to make some assumptions about how Chinese economic growth spills over to its Asian neighbors and to Latin America. And we think, more or less, that a little more than one-half of the shortfall in Chinese growth spills over

into affecting the growth of China's Asian trading partners and maybe other Latin American economies. Their economic growth may fall by, say, around one-third or so. All told, for a very substantial decline, maybe 4 percent, in the level of Chinese output relative to baseline, total emerging market output falls about 2½ percent during this period, and then that, in turn, ends up, over a couple of years, reducing the level of the United States GDP about 1 percent. It raises our unemployment rate—I think it's around ½ percentage point, I'd have to check on that—and it delays our liftoff of the federal funds rate from the zero lower bound by a couple of quarters. So for a pretty substantial shortfall in Chinese economic growth, you do get a very discernible negative effect on the United States. For smaller deviations that are much closer to our baseline, you would get much less of an effect, and you could imagine that being drowned out by the noise of other developments. But clearly, for very large changes in the trajectory, you would definitely get discernible effects on the United States.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. David, I'd like to ask a question about your unemployment rate chart and the uncertainty bands. In thinking about some of the monetary policy options that we're presented with and, in fact, the Chairman's comments at the last press conference, we've tended to shine a little more light on a 7 percent unemployment rate. I think one question that I realize I need to struggle with a little bit more is, what's the probability that the unemployment rate takes longer than mid-2014 to achieve that level? I read the transcript a little more carefully last time—and it was really very interesting to read—and I noted that some people who were somewhat supportive of 7 percent actually thought that that might be achieved as early as the end of this year. That's a pretty optimistic outlook. My own is not quite as strong as that. But my sense is if there was a feeling that reaching 7 percent didn't play out too long,

there might be more support for that. Maybe not, but could you offer me a little bit on the probabilities. If you tabulated the simulations of the projections, in what percentage of them would 7 percent be past 2014 and mid-2014? That's the question—the error bands themselves don't quite get at that.

MR. WILCOX. I can take a preliminary whack at this. I think you can take a horizontal slice through the confidence bands.

MR. EVANS. The problem with the bands here is they encompass a lot of different shooting paths and it's mapping out the upper 15 percent sleeve, I guess, whereas what I have in mind is a little more like your alternative scenario.

MR. WILCOX. I don't know. I don't have a tabulation of the number of times that a path would never have reached 7 and then done a U-turn, but my guess is that that's a fairly rare occurrence. I don't know that for sure. Simon seems to have something on this.

MR. POTTER. I might, a little bit. Going straight to 7 without going back up happens about half the time, I think, in some simulations. Half of the time you go back up a little bit. There's noise in the data and so on.

CHAIRMAN BERNANKE. What do you mean by going “up a little bit”? Do you mean having a—

MR. POTTER. Reversal. Yes, short-term—well there's a mixture of short- and long-term in there because shocks can hit.

MR. EVANS. Well, these are shocks, right? So, yes.

CHAIRMAN BERNANKE. We just had one, I think.

MR. POTTER. Possibly, yes.

VICE CHAIRMAN DUDLEY. You're saying how often it goes to 7 and then stays below 7 percent for a reasonable period of time. That's really what you're saying, right?

MR. EVANS. Just to clarify the reason why I think this is interesting, if we thought that there was, for example, an 80 percent chance that we were going to achieve 7 percent by the fall of 2014, we might have more confidence than if you thought that 40 percent of the time you would go longer than that. Anyway, that's why I asked.

MR. WILCOX. I think I want to talk with President Evans offline and get more clear about what you're asking.

CHAIRMAN BERNANKE. All right. Any further questions? [No response] Would you like to take a coffee break before we start the go-round? I see some nods. All right. We'll start the go-round at 3:45 p.m.

[Coffee break]

CHAIRMAN BERNANKE. Okay. Everybody is punctually back around the table. We'll start with President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Last month I said that we had been surprised in the Fifth District by how few comments we were hearing about the effects of the sequestration. This month, however, we have heard a slew. A director who sits on the board of a major home improvement chain said that the company's analysis showed lagging performance, which they attribute to the sequestration, for stores in Maryland, D.C., Northern Virginia, and the Tidewater area. Another director cited declining home prices around the large military bases in Fayetteville and Jacksonville, North Carolina. A manufacturer reported a significant reduction in orders for medical and scientific equipment because of cuts in NIH grants. And a banker in the Tidewater area said they hadn't seen any impact on their bank yet but were setting aside an

additional \$4 million in loan loss reserves specifically for sequestration-related problems that might come up. At this point, these reports indicate that the potential effects have been broadly noticed, but it is hard to get from them a sense of the quantitative effects.

Apart from the sequestration, the overall tenor of comments we've received from directors and roundtable participants has improved quite noticeably this month. Compared with earlier this year, the reports were more uniformly positive and contained more frequent references to expansions, investments, and rising demand. In contrast to the positive tone of our anecdotal reports, our business activity surveys were fairly downbeat this month. Both the manufacturing and services composite indexes declined sharply, in contrast to the upbeat numbers from Philadelphia and New York. The declines were broad based across industries and across components, with the exception of the employment indexes, which were steady at a neutral level. Looking back over the past several years, our indexes have often displayed one-month plunges only to recover the following month. This month's moves are not out of line with those previous blips. So given the breadth of positive anecdotal reports this month, I'm inclined to wait for another report before taking too much signal from them.

At the previous meeting, I made the case that U.S. economic growth over the next few years is likely to continue at about the pace we've seen since the recovery began at the end of 2009, namely, real GDP expanding at about 2 percent. I noted that this was a change for me because, like many other forecasters, I had been expecting growth to pick up within a few quarters. But I capitulated, and I doubt that economic growth will increase to beyond 2 percent any time soon. Data for the first half of the year appear broadly consistent with that hypothesis, with middling GDP growth but continued gains in employment and declines in unemployment. The Tealbook has taken that onboard to some extent and now expects about 2 percent growth for

the year as a whole. But a sharp pickup in growth is expected next year, with personal consumption expenditures growing at 3.7 percent. What underpins that forecast is sustained growth in real disposable income next year at around 3½ percent. This would be a noticeable increase from the average of around 2 percent that we've seen since the recession. What underpins that forecast, in turn, is the sustained pickup in the growth of labor productivity to around 1¾ percent. Productivity has been growing at a rate less than 1 percent in recent years.

Now, I don't pretend to know too much about future productivity growth. It's notoriously hard to predict. Productivity growth can fluctuate from year to year, and the sizable acceleration in productivity projected in the Tealbook, beginning right now, is certainly possible. That projection is based on the notion that productivity is returning to a judgmental trend line. My own view is that we're more likely to see more of the same very slow productivity growth that we've seen over the past three years, but I don't want to debate productivity forecasts. The point I want to make, and it's sort of an obvious one, is that for any given outlook for employment growth, differences in the outlook for real GDP growth amount to differences in the outlook for the growth in labor productivity. In particular, suppose employment growth continues along the lines of recent trends. If labor productivity growth continues to come in below 1 percent, real GDP growth will be commensurately lower as well. Growth in real disposable income will be lower, too, as will growth in real consumer spending, and so on.

Of course, it's the outlook for labor markets that's front and center these days because we promised that our asset purchase program would depend on the labor market outlook, not on output. That's what we put in our statement late last year when we began the asset purchase program. And we have seen clear improvement in the outlook for labor market conditions, and the Tealbook, Book A, documents that quite nicely on page 27. The other point I want to make

is that given that we've linked our asset purchase program to the outlook for labor markets, I don't think we want to add the outlook for economic growth as an independent criterion influencing the path of asset purchases. The reason is that linking monetary policy to output growth in addition to the labor market is tantamount to linking monetary policy to productivity growth. I don't think that makes sense for the intuitive reason that there's very little monetary policy can do to influence productivity growth over time. If we do pin monetary policy to output growth in addition to labor market conditions, and if labor market conditions improve but productivity growth remains low, we will be in a real bind. So in our communication about the asset purchase program, we should remain focused on labor market conditions. Introducing an additional concern for the outlook for output would amount to moving the goalposts and would risk confusing market participants and eroding our credibility. Thank you.

CHAIRMAN BERNANKE. Thanks. I would just comment that the discussion of output growth was about output growth sufficient to improve employment. So productivity would be relevant to that.

MR. LACKER. I think of the outlook for employment as part of the outlook for labor market conditions, but I take the point.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. Anecdotal evidence from around the Eighth District indicates that the District economy continues to expand at a moderate pace. District labor market outcomes have, however, deteriorated somewhat, with the District unemployment rate rising to 7.5 percent in the most recent readings as compared with 7.2 percent earlier this year. One business contact described the situation as follows: "The state of the local economy is headed upward, but very slowly and anemically. There is real caution

due to economic headwinds preventing aggressive investment in capital and less incentive still for adding jobs.” District banking conditions remain stable, and total lending at a sample of small and mid-sized banks increased during the spring. As a whole, District banks are substantially healthier than they were one year ago. District residential real estate conditions remain robust. According to the most recent data, year-to-date home sales compared with last year are up 17 percent in Louisville, 24 percent in Little Rock, 8 percent in Memphis, and 14 percent in St. Louis. Commercial and industrial real estate market conditions have also continued to improve.

The national economy continues to give mixed signals about its underlying strength. Importantly, the steep downward revision to first-quarter real GDP growth, coupled with some tightening in financial markets in response to the Committee’s June decision, faltering exports, weak wage growth, and tepid growth in manufacturing activity have all combined to create heightened concerns about the economy’s momentum over the near term. While I remain optimistic about the prospect for second-half GDP growth, I think at this point the Committee needs to see stronger and more tangible evidence that the predicted acceleration of the U.S. economy is actually occurring. For this reason, I think the Committee should remain in a “wait-and-see” posture today, neither taking major action nor committing one way or another to particular future action. In addition, the Committee and staff will need time to consider and digest the full implications of the benchmark revisions to GDP that are looming as we meet.

My judgment on this also applies to inflation. As the Tealbook noted, inflation has been drifting lower by many measures, and PCE core inflation measured from one year earlier is about 1.1 percent. I regard 1 percent as an outer bound of where the Committee should be in key measures of inflation when they are below our target of 2 percent. I accept and concur with the

judgment of the staff that inflation may now be poised to turn around and move higher, perhaps in part because of our aggressive asset purchase program. However, again, I think we should wait and see whether inflation developments actually take such a course before committing to policy actions.

In the balance of my remarks, I want to comment on two issues. One, press conferences associated with each FOMC meeting, and, two, using forward guidance as suggested in the memo by Durdu and others. I will endorse the concept of the lower bound on inflation at 1.5 percent as outlined in that memo.

Concerning press conferences, my suggestion is that we make each regularly scheduled FOMC meeting *ex ante* identical, in the sense that each meeting has a scheduled press conference associated with it. In my view, this would give the Committee some additional leeway to make important policy moves at any juncture, and, in particular, at points in time when stronger or weaker data suggest that policy action is warranted. I think it would be wise to make an announcement of a change in the press conference policy at the conclusion of the current meeting. The immediate effect would be to bring the October 2013 and January 2014 meetings into sharper focus as plausible key decision points for the Committee. Longer term, it would allow the Committee to feel freer to move up or push back key decisions according to sentiments on the Committee regarding the interpretation of data flows.

Regarding the memo of Durdu and others, let me first say I appreciate the work of the staff on this important topic. The authors suggested three possible approaches to the use of additional forward guidance. Of the three, I suggest that the Committee consider adopting at a future meeting a lower threshold on inflation as described in the memo. My preference is for a lower inflation threshold of 1.5 percent, in part because it is symmetric with our current

2.5 percent threshold above our inflation target. I think an announcement that the Committee would not raise the policy rate in an environment where inflation was expected to remain low might have an important impact. It would take some of the pressure off of the unemployment rate threshold as, in effect, the sole criterion by which the Committee might judge the appropriate date of liftoff. With the low inflation threshold, financial markets would better understand that the Committee also intends to defend its stated inflation target from the low side.

While I am endorsing the use of an inflation threshold at 1½ percent, I do not think the other ideas concerning thresholds explored in the memo by Durdu and others are something I would like to see pursued further at this point. One possibility was the adjustment of the unemployment threshold to a lower level. In my view, lowering the unemployment threshold is problematic at this point because it would suggest, as the memo authors note, that the thresholds named by the Committee are malleable objects, which might be moved lower or higher as macroeconomic circumstances change. In my mind, this defeats the purpose of the thresholds, which is to offer a credible guidepost to Committee actions. Moving the threshold would damage the credibility of the Committee and would call into question the ultimate impact of having the threshold.

Another possibility mentioned in the memo was to make a commitment to raise the policy rate only gradually once liftoff occurs. I also see this option as problematic because the promise of a gradual liftoff on its face sounds like a non-state-contingent policy. Most market participants will remember the 2004 to 2006 tightening cycle and will assume something similar, which is essentially a pace of tightening that does not depend very much on incoming data. So I do not like this option because it seems less state contingent to me. I understand that, in principle, it could be state contingent such that the pace of tightening would be slower than

otherwise, but that would be a very difficult thing to communicate to markets. One additional comment on the gradual tightening forward-guidance issue, there was a paper presented at the Jackson Hole conference, I believe in 2009, by Carl Walsh, which addressed this issue using a standard New Keynesian model. The result from that exercise was that gradualism was not the optimal policy. Instead, the policymaker should simply commit to remain at zero longer and then, when the date of liftoff occurs, the policymaker should return to the normal policy relatively abruptly. The logic of this type of finding and this class of models seems strong, and I think the memo authors would need to address this issue before going forward.

So, in summary, I endorse a press conference at every regularly scheduled meeting and future adoption of a lower threshold on inflation at 1½ percent. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Of course we will discuss the forward-guidance issues, and so on, in our policy go-round as well tomorrow. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. The data since the June meeting have prompted Board staff to lower the Tealbook outlook for GDP growth for 2013 and raise the unemployment rate to 7.4 percent for the end of this year. This continues the unfortunate pattern of hopefully forecasting stronger economic growth in the out quarters only to be disappointed by the incoming data. While our tendency to overpredict future economic growth over the past several years is certainly one reason to be cautious about our outlook, there are several other potential concerns related to recent events. First, long-term interest rates have increased significantly during the past two months. This development is of particular concern because the interest-sensitive sectors have been the major source of growth over the past year, a source we can ill afford to lose. However, it is too soon to know how much restraint the higher rates will have on these sectors, but it certainly won't help. Second, as President Dudley noted earlier, oil

prices have risen. Given weakness in Europe and China, and apparently significant supply and inventory, I do not see a compelling reason for the higher prices. But if they persist, they may restrain consumption. Third, the political uncertainty surrounding the budget and debt ceiling has the potential to be disruptive, even if reasonable agreements are ultimately reached. This highlights why any removal of accommodation should be based on data rather than on expectations of an improved economy.

The recent employment report was better than I expected. While payroll employment of just under 200,000 jobs a month over the past quarter is encouraging, the unemployment rate of 7.6 is the same rate as that of March and well above the 7.2 to 7.3 percent that was the central tendency from the last SEP for the end of 2013. While the unemployment rate has declined from 8.2 percent since last August, other important labor market indicators have not shown significant improvement over the past year. For example, the number of those working part time for economic reasons was higher in June than it was last August. One of the hallmarks of the Great Recession has been the large number of workers employed part time for economic reasons. Because they are qualified to do the work, but cannot get the hours they desire, this strongly suggests that labor demand has not been sufficiently robust to turn these part-time jobs into full-time employment. Furthermore, if workers were more confident, one might expect that the quit rate would have continued to increase as it did in the early stages of the recovery. However, over the past year, there has been no change in the quit rate, and there is relatively little change in the quit rate by industry. Thus, the decline in the unemployment rate over the past year may overstate overall improvements in the labor market, leaving us short of the gains necessary to qualify as substantial improvement in labor markets.

With regard to inflation, both total and core PCE inflation over the past year are close to 1 percent. A reasonable expectation is that temporary factors holding down inflation will fade, and well-anchored expectations will draw inflation back toward the Fed's 2 percent goal. But we should remain cautious on this score, as the reliability of models that assume well-anchored expectations at the zero lower bound draw from a very limited relevant historical sample. To date, we have observed little evidence that we are clearly on the path to our 2 percent target. This is another situation in which I would like to see stronger evidence in the data that we are returning to our target before we reduce the degree of accommodation. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. The incoming data have caused me to reduce my growth estimate for the year directionally in line with the Tealbook. Tomorrow morning's number will tell us if the tracking estimates of various parties, including that of my own Bank, correctly foretold a weak second quarter. My outlook has real GDP for the year 2013 coming in at or below, but near, 2 percent, similar to the growth record over much of the recovery period. The downward adjustment for the year is of course just arithmetic. For now, my forecast continues to anticipate a step-up in economic activity in the second half with increasing momentum in 2014. The underpinnings of that outlook are an attenuating fiscal drag, recovering Europe, helping net exports, and positive benefits from generally growing business and consumer confidence bolstered by a continued housing rebound and increased household wealth.

As I read the data, they present a bit of a puzzle. By that I mean certain data elements seem difficult to reconcile with others. President Lacker's comments drew attention to this

concern. Over the past couple of years, job gains at about 1.7 percent a year had been running close to the economy's trend rate of growth of around 2 percent a year, implying a suppressed trend rate of productivity growth. The Tealbook captures this notion in the supply-side damage alternative scenario. But that scenario implies more inflation pressure than is apparent, so I am not yet ready to make that my working assumption. I think it is more likely that the pace of economic activity will improve than that the rate of employment expansion will slow. In my baseline outlook, the necessary resolution comes from stronger economic growth consistent with the rate of net new jobs growth sustained around the trend of 190,000 to 200,000 per month.

The inflation numbers also strike me as curious. My staff and I agree with the Tealbook that a variety of special factors have pushed the core PCE measure lower this year. The most recent CPI report seemed to support the transitory factors hypothesis, but the inflation trend remains well under the Committee's objective, and I, for one, keep pushing out further my expectation for the timing of getting to target. It is comforting that inflation expectations appear stable, but, again, I see tension between inflation data elements that seem to call for resolution. Either inflation numbers have to firm or inflation expectations should adjust downward. I continue to have inflation firming in my forecast.

In conversations with directors and contacts over the recent cycle, we heard mildly positive predictions about the second half. The outlook of business people was pretty uniformly that the second half would be either a little better or about the same. It is hard to discern from these conversations whether the 2½ to 3 percent growth rate currently in my projections is supported by business sentiment in my District. Those contacts able to gauge consumer spending see it advancing only at a modest pace, somewhat at odds with the second-half strength assumed in the Tealbook forecast. In this cycle, we continued our practice of surveying business

inflation expectations and asking contacts about their pricing power. These soundings provide little support for the expectation that the downward pressure on prices is likely to ease in the foreseeable future.

Regarding the balance of risks, I am going to express some anxiety about the balance of risks. Even with an optimistic outlook, I have shifted my economic growth balance from neutral to the downside. I have to admit that this view is partially influenced by my Bank's growth forecasting track record. The year 2013 will be the third straight year in which we forecast an acceleration of economic growth over the prior year, only to have to revise downward in response to incoming data. As I evaluate the record of the SEP central tendencies and the Tealbook, it's pretty clear to me that I am not the Lone Ranger in that pattern. Given this experience of growth underperforming my earlier medium-term projection, my state of mind is to be less dismissive of downside contingencies. The contingencies that concern me include a renewed fiscal uncertainty shock in September, the possibility of sequestration effects still in the pipeline, and a reversal of sentiment in business and consumer circles that has an effect on demand in the second half. In spite of officially holding to my outlook of improved economic growth, I have to say my confidence that growth is on the verge of accelerating isn't high. If someone here, perhaps David Wilcox, wants an over-under bet on a 3 percent growth rate for the next six quarters, I will take the under. I am also inclined to weigh the risk to my outlook for rising inflation as tilted to the downside. That means that the bias allows for persistent subpar inflation as a trend without necessarily suggesting accelerating disinflation. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. As you mentioned at the beginning of this meeting, Betsy Duke is going to be lauded tomorrow by you and by President Plosser, as Chairman of the Conference of Presidents. But I just want to thank Betsy for what she brought to the table. It has been not only practical knowledge but also a deep understanding of banking, which we have needed during this crisis. And I also want to announce to the table here that Betsy is going to leave—as we know—take some time off in Italy, and then she is going to establish a firm called “Vagueworks,” at which I will join her afterward because of our great forecasting capacity as tabulated by the *Wall Street Journal*. One thing you learn as an MBA is to never provide a forecast with any specificity whatsoever, and I think that’s why we did so well in that very important ranking, Betsy, that the *Wall Street Journal* came forward with.

I have some very quick comments because I don’t think a whole lot has changed. In the first half of 2013, job growth in my District came in at 2.1 percent. Our Beige Book notes that the economy generally expanded at a slightly stronger pace in the past six weeks than during the previous reporting period. Listening to my colleague from St. Louis, your existing home sales and numbers are very strong. Districtwide, in our case, existing home sales are up 16.7 percent year over year, inventory is at extremely low levels, and home prices continue to rise. Construction has been growing. Our business contacts from the Beige Book and from the surveys we released yesterday and today indicate that wage and price pressures remain subdued overall. And unlike the Richmond District and more like the Philadelphia and New York Districts, we are seeing expansion in manufacturing and in our service sector. And, as you know, we do a special survey on retail sales, and they are expanding once again.

With regard to the sequestration effect, we are heavily military oriented, as you know. We haven’t been affected quite like the Richmond District, but in our District federal

government employment has declined at an annual rate of 5 percent in the first half. And yet there is some relocation that is taking place. For example, if you look at Lockheed Martin's plans—I'm sorry to say this, President Lockhart—it is going to mothball Marietta and move everything to Fort Worth. So there is some relocation that is taking place, which will have a negative effect on the country but will have a different pattern depending on what the Districts are.

With regard to anecdotal evidence, I don't have a whole lot that is new, although I took a deeper dive than ever because it is summer and more of the CEOs are available. I will simply note with regard to the question asked by Mr. Dudley and the comments made on oil prices, certainly in talking with the CEOs of the large integrated companies as well as the independent operators, there is little expectation in terms of their own budgetary planning for a continued rise in oil prices. Part of it has to do with our own domestic supply, unless of course there is some disaster that closes the Strait of Hormuz. A little bit is based on the fears of Egypt and Syria, as was mentioned earlier at this table. But the one thing I would suggest that you consider as a staff, when you look at gasoline prices, is what's called the blend wall. We are up against the blend wall—that is, the mix of ethanol that can be used at a 10 percent level. And this is creating some price pressures. We have plenty of domestic supply, and all of the producers that I speak to, whether they are the large integrated companies or the independents, are not worried about the balance between supply and demand. It really has to do more with regulatory impact, and they are all negotiating with the administration and the EPA to get some relief on this front. It will either result in domestic prices continuing under sustained pressure or relief by basically exporting more, as they have been doing in diesel. And, nonetheless, no one I know in the

industry expects these price trends to continue, and they expect them to roll over somewhat. The same is true for natural gas prices as well.

With regard to the patterns of consumption, consumer confidence is stronger. The Michigan survey was up in its most recent report; the Conference Board number was slightly off, but not all that bad. However, one of the things that I found most interesting, Mr. Chairman, was taking a deep dive into what has happened to J.C. Penney, just to see what has happened with consumer behavior. J.C. Penney, as you know, was taken over by a new CEO. The vice chairman of my board of directors was replaced, and now has been brought back in to save the damage that was done by the gentleman that took it over, who came from Apple. They lost a substantial amount of their client base. The deep dive that I find interesting is, where did that client base go? And the answer is, 70 percent traded away from malls and traded down in looking for greater discounted value. The average tab for a J.C. Penney sale is only \$15, and yet only 19 percent of the customers they lost made a parallel move. The rest of them traded down to the dollar discount stores and to the T.J. Maxxes and the Rosses and the Walmarts and the Targets. The point being that consumers are still looking for discounts and for value, and I think that this of course helps keep a lid on price pressures.

Regarding forecasts, I warned the staff with regard to the first half of the year in my comments at the previous meeting that my numbers were similar to yours, and, therefore, we had to be wrong. I think we were wrong for the first half. But with regard to going forward, I really have nothing to add besides what David pretty much said because I think the Dallas Fed and I are in accord with him. We do see a little bit of a pickup in economic growth, but I want to emphasize it is like moving from second gear to third gear. So it goes from maybe modest to moderate. And we have been studying growth in final sales of domestic product, which excludes

of course the volatile inventory component of GDP, and expect that we are going to move up closer to a pace of 3 percent in the second half of this year. That is as specific as I wish to be, being a master of vagueness in my public announcements, like Betsy Duke. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. The incoming data have been mixed. The news from the labor market has been relatively encouraging. But outside of autos, consumer spending is looking pretty sluggish, and the sequestration is adding to an already large fiscal drag. So, like the Tealbook, we expect tomorrow's second-quarter GDP number will be distressingly weak. Also, like the Tealbook, we are predicting a pickup in economic growth in the second half of the year to about a 2¾ percent pace. However, there is considerable room for doubt; this pickup is just a forecast. There is nothing really tangible in the data at the moment that points to an acceleration in economic activity. This seems to me to be a forecast of hope again. The same goes for inflation. Though it is not yet clearly in the data, we think core PCE inflation will increase a bit from its current disturbingly low level as we move through the year. However, we do not think it will rise quite as fast as the Tealbook.

Nevertheless, our hopeful projection for an improvement in economic activity seems consistent with the reports from my business contacts, which were somewhat more positive this round, and I'd like to dedicate the next comment to Governor Duke. Directors of my small and medium-sized banks offered some of the most upbeat assessments I have heard in a while. They noted a lot of new activity and demand from small businesses and multifamily real estate within the last month. So I was glad we got that in before you left. The reports from automakers were also good. They continue to remark that low financing rates have supported sales. However, my

other big business contacts were more tempered. Their tone was best summed up by a story from my Chicago chairman, who runs Manpower Employment Services. He said that the CEOs of his big Blue Chip clients were sounding more upbeat, and many indicated a greater likelihood of near-term expansion. But there is a disconnect. Usually when he hears such talk, it is accompanied by an increase in orders for temporary workers. Temporary employment services is, after all, a leading indicator. When he pointed out to the CEOs that their current orders didn't reflect the same optimism that they just expressed, they backtracked, right-sized their views, and said they weren't yet confident enough, even at these earliest stages, to pull the trigger on hiring for temps. So that is a bit of a downside risk, I would say. Apparently, they will wait until more customers actually walk through their doors before increasing capacity.

Now, of course, this has all occurred at the same time that financial conditions have become more restrictive than they have been for quite a while. At the margin, this could cause businesses to sit on the sidelines even more than they already are. More important, our forecasts put a great burden on the household sector to kickstart the virtuous cycle of spending and hiring that is needed to achieve a higher path for economic growth. And that may be a tall order. Revised data now give a picture of softer consumer expenditures outside of autos, which is consistent with this year's tax increases weighing on household budgets. And many households still face underwater mortgages or other difficulties accessing credit, although that has improved of course. So I am concerned about the risks to the forecast for consumption and housing, especially now that we have piled on less-attractive borrowing costs and smaller increases in asset prices from here on out.

Despite the risks, I still expect that the cyclical repair process will eventually show through to higher economic growth, although continuing strong support from highly

accommodative monetary policy remains essential to my outlook. We are forecasting growth will recover to a 2¾ percent rate in the second half of this year and rise to the 3½ percent range over 2014 and 2015. I guess I could pause at this point and offer the same type of commentary that President Lockhart did because we were similarly hurt in our outlook for being overly optimistic, and I'm trying to temper that. We still think that economic growth is going to recover. I think this is a good point forecast, but it is an uncertain one. Importantly, the data for the third quarter will be crucial for assessing the impact of the long list of factors that are clouding the forecast at the moment. Somewhat like the comments from President Bullard and President Rosengren, I simply don't see how we will be able to have much confidence that we have broken out to a higher growth path with a sustainable improvement in the labor market outlook before we see how the economy performs in the third quarter.

Accordingly, I think we have to be careful about doing anything further that prematurely reduces monetary accommodation. The outsized increase in rates that occurred since our June meeting wasn't helpful for economic growth, even if it had a modest influence on financial stability risks. Our communications and actions from here need to be extremely careful to not make financial conditions even more restrictive than we inadvertently engineered in June. And in our monetary policy discussions tomorrow, I will argue for greater explicitness in our strategic direction that should help us in this task. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. The data have come in largely as I had expected, so I haven't made significant changes to my forecast. I continue to expect a gradual pickup in GDP growth, which will bring the unemployment rate down and pull inflation up toward our 2 percent objective, broadly similar to the Tealbook outlook.

My projection of gradual improvement in the pace of recovery is consistent with a range of comments that I have heard from my District contacts. The recent strength in the auto sector is a hopeful sign. Contacts in my District have reported that in the face of strong consumer demand, linked in part to pent-up demand, the traditional summer shutdown of auto plants is either being eliminated or shortened. I have also been encouraged by reports from the bankers in my District. They indicate that they haven't been adversely affected by the recent rise in interest rates and that they didn't observe any sudden changes in behaviors of their retail investors. My forecast for a pickup in GDP growth is also supported by further progress in employment conditions shown by the most recent report on labor markets. The average pace of monthly job gains now stands at 196,000 for the past 3 months, 202,000 for the past 6 months, and 191,000 for the past 12 months. I view this sustained rate of monthly job gains of about 200,000 as substantial in light of the research by my staff, which I reported on in the past, that shows that the downward trend in job flows and labor force participation has reduced the trend rate of job growth.

Turning to inflation, I continue to view the current low levels of PCE inflation as temporary and expect PCE inflation to gradually rise toward 2 percent. I base this judgment on a range of factors, including the following three considerations. First, the measures of underlying inflation that we produce at the Cleveland Fed, the median CPI and the trimmed mean CPI, have stayed stable at about 2 percent in June. Second, measures of inflation expectations from various surveys, nominal and real Treasury yields, as well as the model that is maintained by my staff, also remain stable. And, finally, both the specific measurement issues that were raised in the Tealbook and a longer look at history suggest that there is a pretty good chance that the current estimates of PCE inflation will be revised up over the next few years. From 1996 through 2011,

80 percent of the initial estimates of PCE inflation were eventually revised up. Analysis done by my staff showed that the upward revisions to PCE inflation tend to be associated with gaps between the CPI and PCE inflation measures, such as we see today.

As to the balance of risks around my outlook, I believe that the balance has shifted from downside to broadly balanced for GDP growth and from upside to broadly balanced for unemployment. I base these changes on the sustained improvement in consumer attitudes and the gradual improvement that we're seeing in household balance sheets, which is increasingly showing up in stronger auto sales and an improving housing market and is indicative of a more sustainable recovery. I continue to judge the overall risks to inflation as broadly balanced, with upside risks that our large balance sheet could eventually cause inflation expectations to increase and, in turn, inflation to rise. The downside risks are that if the recovery were to falter, inflation could decline. Putting those two together, I do still see the inflation risks as broadly balanced.

Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Economic activity in the Third District continues to grow at a moderate pace, and the outlook is positive according to both our business contacts and the Philadelphia Fed's leading indicator indexes. Most sectors of the regional economy, including manufacturing, have shown signs of growth in the intermeeting period. Our Business Outlook Survey showed its second consecutive positive reading in July after being near zero or negative for most of the earlier part of the year. There was large, broad-based strength in the survey, including a nice rise in capital spending plans and the survey's employment indicators. This is consistent with the acceleration in regional employment we have seen over the past three months in our District. While the regional unemployment rate remains high—it is

at 8 percent—it is down 0.7 percentage point since the start of the year. One notable difference between the region and the nation is that participation rates have been generally rising in our region this year, whereas they have been falling in the nation. We don't have a very good explanation for that, but that certainly seems to be one of the things that is going on in our District. Otherwise, activity in the District seems to be tracking the nation. Auto sales are strong. Growth in other retail sales has been modest over the past two months, but contacts attribute this to seasonal softening and some torrential rains we had in the northeast in June. Area retailers expect sales to pick up for the rest of the summer. Residential housing continues to recover. Local businesses reported no impediments to sales, such as credit availability, but some noted shortages of labor and land. Home sales are advancing, and home prices are rising. Commercial real estate markets have shown less of an improvement this year. Overall, business contacts continue to be optimistic that expansion at a moderate pace will be sustained.

My outlook for the national economy has changed little since the June meeting. After a weak first half, I anticipate economic growth will accelerate in 2014 and 2015 to something slightly above trend. Recent data on labor markets, including the upward revisions to payroll employment, make me more optimistic than the Tealbook about the decline in the unemployment rate. I think the recent inflation upticks that we have seen the most recent inflation numbers support the Committee's view and my own view and the staff's view that temporary factors are largely responsible for the downturn in inflation. And I still anticipate that it will return toward its 2 percent target over the forecast horizon. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you. Mr. Chairman. I would like to spend my time today on two topics related to the national economy. The first topic is the evolution of some key labor market metrics, and the second is monetary policy uncertainty.

The unemployment rate has fallen markedly over the past three and a half years, but in terms of employment itself, progress has been limited. In June of 2010, 58.5 percent of Americans over the age of 16 had a job. In June of 2013, that fraction was 58.7 percent. There has been somewhat more improvement in the fraction of Americans between the ages of 25 and 54 who have a job—prime-age workers. This latter fraction is still well over 5 percent below its level in early 2007. I know as well as anyone that it is tempting to see the persistently low level of employment being beyond the reach of monetary policy. The good news is that the behavior of prices presents evidence against this negative conclusion. PCE core inflation has averaged less than 1½ percent per year over the past three years. That's the lowest three-year average in half a century. I see this low inflation rate as a strong signal there's still more that can be done using monetary policy to increase employment.

To increase the slow rate of improvement in the labor markets, the Committee initiated a large-scale asset purchase program in September of 2012. Have we seen the desired acceleration in the rate of improvement? In the past 9 months, the unemployment rate has fallen by a small amount, only 20 basis points. Actually, here I'll emphasize I'm saying 9 months, not 10 months because if we say August, the household survey showed a huge improvement from August to September. The employment-population ratio was unchanged, whether we look at those over the age of 16 or those aged between 25 and 54. I would say that it's hard to see the desired acceleration in labor market improvements in this data flow. To be clear, this is not to say that the program has not been effective. The strong performance of the housing and automobile

sectors indicates that the current large-scale asset purchase program has, indeed, enhanced the economy's resilience to surprisingly severe fiscal retrenchment. The limited improvement in labor market outcomes does mean that the public could well see a decision to reduce the flow of purchases as being inconsistent with the declared goals of the program and the declared overall goals of the Committee. Given that, it should not be surprising that our June communications, in fact, created confusion about the nature of our reaction function. This leads me to my second topic, uncertainty about our reaction function.

Over the past 90 days, we've seen large increases in longer-term Treasury yields and even more so in mortgage yields. What is the source of these increases in yields? Both Tealbook, Book A, and the excellent staff memo on recent interest rate developments attribute a large fraction of increases to upward movements in term premiums. Now, as these memos discuss, the increases in term premiums stem from many sources. However, I think that at least part is attributable to an increase in the level of market uncertainty about our reaction function, which we should see as a self-inflicted wound. I can cite three pieces of evidence for this conclusion. First, since the Chairman's testimony in May, long-term yields have been surprisingly sensitive to what would seem to be relatively minor changes in FOMC communications. This suggests that market beliefs about the Fed's reaction function remain relatively diffuse. Second, over that time frame, there have been noticeable increases in implied 10-year yield volatility but, at the same time, relatively little change in implied equity volatility. This observation suggests that the increase in interest rate uncertainty has occurred because bond market participants are uncertain about how the FOMC will react to future conditions as opposed to being uncertain about the underlying conditions themselves. Third, even though the FOMC has provided no new explicit information about the future path of the fed funds rate, market

expectations about its dynamics have been quite volatile. So, at least these three pieces of evidence indicate to me that there has been an increase in the level of market uncertainty about our reaction function, which is pushing upwards on yields.

Mr. Chairman, the final sentence of the staff memo on recent interest rate developments says, “Policymakers must remain focused on providing the clearest possible communications on the future course of policy and how the stance of policy might respond to changing economic circumstances.” I agree with this sentence completely. In some sense, of course, it’s just a fundamental principle of good public policy, but, more practically, our lack of clarity is pushing upward on longer-term yields, and this has consequences for the real economy. Thus, the National Association of Realtors now reports that the recent run-up in mortgage yields has pushed down housing affordability to the historically unusually low levels we last saw in the fall of 2010—three years ago. This change robs the economy of monetary stimulus that it continues to sorely need. We need to work toward providing the missing clarity. In my next go-round, I’ll provide some thoughts on how we might do so, and I will, I think, at that time be able to assuage President Bullard of all his fears about lowering the unemployment rate threshold. Thank you.

CHAIRMAN BERNANKE. Thank you. President George.

MS. GEORGE. Thank you, Mr. Chairman. Since the June meeting, growth in the District economy has been supported by increases in higher average wage job categories, such as the construction and professional and business service sectors. Manufacturing activity in the region expanded in July at its fastest rate in nearly a year, while expectations for future activity eased slightly, but remained positive, with lower expectations for exports accounting for some of the downgrade. In a special question, only about 10 percent of firms noted or expected an impact from the recent increases in longer-term interest rates. Corn production is projected to be

almost 30 percent higher than last year and more than 6 percent higher than the record set in 2009. Corn futures prices reflect this, and farm incomes are expected to be lower as a result. Finally, the trend toward more oil and less natural gas drilling continues in the District. Overall activity remains relatively flat, but at a high level. Higher prices and the recent narrowing of the Brent–WTI spread helped District producers as infrastructure to move product out of the region continues to improve.

Regarding the national economy, I view incoming data related to private-sector demand as generally positive. Equity prices have risen. Payrolls increased more than expected. Consumer sentiment increased. Vehicle sales surprised to the upside, and house prices continue to rise. One of my directors, the CEO of a national and international real estate firm, noted that housing inventories are down 10 percent from a year ago and that such low inventories are leading to bidding wars and higher prices in some markets. While growth in real GDP has slowed considerably in the first half of this year because of fiscal restraint, growth in private final demand has remained resilient. Over the past year, the increase in real final sales to domestic purchasers has been about 1 percentage point higher than real GDP, and I expect this difference to continue through 2014. The Tealbook has a similar outlook. And although I've marked down my forecast for the current quarter because of fiscal restraint, my outlook for the next six quarters is unchanged. Likewise, I note the outlook for the six quarters was also unchanged between the June and July Blue Chip consensus forecasts. Of course, resolution of the debt ceiling and slower foreign growth pose downside risks to this outlook.

As I look at labor market conditions, I see continued improvement over the past three and a half years, and even as the unemployment rate remains high, measures of labor market slack reported by the BLS have all shown steady decline since 2010. Likewise a labor market

conditions index recently developed by my staff looks at some 23 variables that measure resource slack, growth in employment and earnings, as well as survey responses by businesses, consumers, and economists. This index also shows that conditions have improved since 2010 and, in particular, shows that the speed of improvement is strong by historical standards.

In terms of inflation, although second-quarter PCE inflation will be low, likely due to transitory factors, I expect to see inflation pick up over time with an improving labor market and stronger growth, as well as anchored longer-term inflation expectations. Thank you.

CHAIRMAN BERNANKE. Thank you. President Williams.

MR. WILLIAMS. Thank you, Mr. Chairman. Recent economic data have been a jumble of good and bad news. Real GDP growth looks to have slowed markedly in the second quarter. At the same time, job gains have been solid, and production indicators are pointing upward. Financial market developments have similarly presented a mixed bag. The backup in interest rates is a negative for economic growth, but equity and house prices have continued to climb, and lending standards have eased further. So after weighing this information, I have not changed my forecast that economic growth should show renewed vigor in the second half of this year as the effects of fiscal austerity, credit restraint, and uncertainty wane. Consistent with this assessment, I'm hearing greater optimism from a broader set of my contacts, including from sectors outside of housing and high tech. With the strengthening economy, I anticipate that we will reach our 6½ percent unemployment threshold in the first half of 2015, and I see the risk to the outlook as broadly balanced.

But given that our forward guidance focuses on the unemployment rate, an important issue is whether the unemployment rate is giving an accurate read on where things stand relative to our maximum employment mandate. Now, President Fisher already referred to the *Wall*

Street Journal article on our forecast accuracy. For those people who looked at that, you could see that I am particularly challenged about forecasting the unemployment rate. I could blame the data, but instead I actually will blame the forecast because, in fact, the unemployment rate has a number of advantages as a summary statistic for slack. First, it closely tracks other indicators of labor market slack, such as the share of households reporting that jobs are plentiful, and the share of small businesses reporting difficulties filling job vacancies. Second, in the United States at least, the natural rate of unemployment appears to have been reasonably stable and predictable over history. However, the significant drop in labor force participation and the relatively flat employment-to-population ratio since 2008 that President Kocheerlakota already made reference to suggests that the unemployment rate could now be understating the degree of slack in the economy.

The current discrepancy between the unemployment and employment-to-population rates is, in fact, highly unusual. In the past, the correlation between cyclical movements and unemployment in the U.S. unemployment rate and the employment-to-population ratio was very high, and the reason is that the big movements in the participation rate, like the one we've seen recently, at least in the past were primarily structural rather than cyclical, driven by factors such as the entry of women into the labor market. This same pattern is found in international data, in which the signals coming from unemployment and employment-to-population are typically aligned, except when notable disruptions to secular trends in labor force participation have occurred. So whether one views the unemployment or the employment-to-population ratio to be the better measure of slack depends on to the extent that one believes that this time is different. For example, based on the historical behavior of labor force participation, the FRB/US model finds that the trend component of labor force participation has declined considerably over the

past few years, and the current participation gap—the difference between the trend and the actual labor force participation rate—is only about $\frac{1}{2}$ percentage point. In that case, the unemployment rate is actually providing an accurate gauge of labor market slack. However, labor market disruption during the deep recession and slow recovery has been unusually large. So this time could be different. A greater proportion of the recent decline in labor force participation could, in fact, be cyclical. At one extreme, Chris Erceg and Andy Levin, in their paper, argue that the decline in participation is mostly cyclical, and the current participation gap is $2\frac{1}{4}$ percentage points, suggesting much more slack than implied by the unemployment rate.

There's been a great deal of research aimed at understanding why participation has declined so much in recent years. This work finds that, in addition to demographic factors, ongoing structural trends—such as the movement onto permanent disability benefits among prime-age workers, the decline in two-earner households among the working-age population, and the focus on school instead of work among young adults—have played a role in driving down participation. Although various estimates of trend participation differ somewhat, they generally find that structural factors explain the majority of the decline in participation since 2008. That said, they also suggest that the cyclical influence on participation has been larger than one would have expected based on history, with estimates of the current participation gap between $\frac{3}{4}$ and $1\frac{1}{4}$ percentage points. My interpretation of all this evidence is that, to some extent, the current period is indeed different, although not to the extent that Erceg and Levin claim. Extensive layoffs and persistently dismal job prospects appear to have caused unprecedented withdrawals from the labor force, and my current estimate of the participation gap is about 1 percent—in the middle of the range I just mentioned. So I expect a participation rate that will remain roughly

flat over the next few years as the return of discouraged workers offsets the longer-term demographic trends that are pushing down participation.

One lesson from this research in labor force participation is how difficult it is to discern in real time what is causing shifts in participation and whether these movements are structural or cyclical in nature. A compounding factor is that the trend participation rate can rise or fall for many years, for reasons that are hard to predict beforehand. For this reason, forecasts of trend participation rates tend to be subject to large forecast errors. For example, following each of the past three recessions—that includes the most recent recession—the Bureau of Labor Statistics has significantly reduced its estimates of trend labor force participation. This difficulty in measuring the trend in participation provides a reason to be cautious in putting too much weight on the employment-to-population ratio as a measure of labor market slack.

Regarding inflation, while we remain well below our 2 percent longer-run goal, I'm encouraged by the recent data that suggested that declines in inflation that we've observed earlier in the year were, indeed, temporary. And still, I have heard little discussion to date of wage or price pressure from any of my contacts, which leads me to believe that while we are now again on our way back toward our 2 percent target, it will be several years before we get there. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you, Mr. Chairman. My views have not changed much since the June meeting. I remain less optimistic about the prospects for a pickup in economic growth in the second half of the year than the Tealbook, and I remain worried about the disparity between the performance of payroll employment relative both to economic activity and to other labor market indicators. Let me take each of those in turn.

I have been arguing for some time that the expectation that economic growth will strengthen is a forecast, not a reality. The fact is we don't know how long the high degree of fiscal drag and the sluggish growth outlook abroad will inhibit economic growth here at home. In this respect, I think the Tealbook is too optimistic about penciling in a pickup. I ask the question, what's the impetus for faster growth? Yes, it's true that the degree of fiscal restraint will eventually lessen, but it's not obvious, at least to me, that this will happen in the second half of 2013. After all, I don't think the timing of when the sequestration will bite the most is well understood by most of us. Also, while it is true that the European economy seems poised to soon stop contracting, no one expects a rapid recovery, and growth in other areas seems to be steady to slowing. So the trade sector seems like it could be at best neutral for the economic growth outlook. As I noted a few meetings ago, in the accounting identity, private balance plus public balance equals the current account balance. It's difficult to get faster economic growth when the public balance is moving from deficit toward balance and the current account balance is relatively stable. We need a strong movement downward in the desired private balance to get a meaningful pickup in the growth rate. I think we'll be lucky to get annualized real GDP growth as high as 2½ percent in the second half of the year using the old methodology.

Another issue I think worth highlighting in terms of the growth outlook is the cyclical dynamics of the economy. When housing and consumer durable sales are very depressed, then it makes sense to expect that these sectors will recover to more normal levels, and this cyclical recovery will provide a lift to economic growth. However, once these cyclical sectors normalize, then the impetus to growth from this source will fade. In this respect, I think it's noteworthy that the cyclical gaps in housing and motor vehicles are lessening. Housing starts—even after the recovery that's taken place over the past year—still seems quite depressed relative to long-term

trends in population and household formation. I'd expect a recovery somewhere in the 1.4 to 1.5 million starts per year eventually, well above the current start rate. The situation in motor vehicles seems quite different. With motor vehicle sales running at a nearly 16 million annual selling rate in June, we're only now modestly to slightly below what I would expect to be sustainable on a long-term basis. My point is this. It may be important for us to get above-trend economic growth soon, before we've exhausted the push from the cyclical sectors of the economy. If we were to continue to grow at 2 percent through 2014, which has been the average growth pace so far in this expansion, and if this was being driven mostly by gains in motor vehicles and housing, I start to wonder what would be the future sector sources for above-trend growth beyond that. I guess it would have to be mainly trade and business fixed investment.

With respect to the labor market, I'd make two points. First, the payroll gains have been very strong relative to GDP growth. Productivity growth has been terrible. The Tealbook estimates that output per hour for the nonfarm business sector fell at an annual rate of 0.7 percent during the first half of 2013. Now, perhaps GDP growth will be revised up or the growth outlook will improve, but just as likely in my opinion is the prospect of payroll gains moderating as productivity growth picks up. The Tealbook assumes that output per hour for the nonfarm business sector will rise at an annual rate of 1.4 percent during the second half of the year. If this is the case, then to get still-sturdy payroll gains and a declining unemployment rate, real GDP growth has to pick up considerably. The second point I'd make with respect to the labor market is that the payroll gains overstate the improvement in the labor market conditions. For example, consider other indicators of labor demand, such as the job-finding rate, the job-to-job transition rate, the hiring rate, the quit rate, or the vacancy-to-unemployment rate. All of these measures are essentially unchanged from where they were in 2012 and are well below the pre-recession

levels that prevailed during the 2004 to 2007 period. Similarly, measures like the labor force participation rate and the unemployment-to-population ratio remain very depressed relative to the decline we've seen in the unemployment rate from last September. Thus, I concluded that the labor market is still quite weak. I haven't seen substantial improvement yet in the labor market outlook, and I worry that if we're too aggressive in our move to dial down our pace of asset purchases, we may not see it in the foreseeable future.

Foreshadowing my policy comments tomorrow, until we see evidence of a self-sustaining recovery, we need to be careful not to inadvertently tighten financial market conditions. That's because the risks are asymmetric. A premature tightening of the financial market conditions could derail the recovery. In contrast, if financial market conditions stay more accommodative for longer, this could be corrected quite quickly as we've seen in recent weeks. I know that even when we dial down the pace of asset purchases, we can make the case that we're still adding accommodation, but what is more relevant is whether our actions lead to a premature tightening of financial market conditions. In my view, financial market conditions have tightened considerably since May, more than we want or than we anticipated.

The backup in long-term interest rates—which is where the tightening took place—has been driven by several factors. First, I think the FOMC statement for the June meeting was read as more optimistic about the outlook than market participants expected. In particular, the removal of the downside risks language got market participants' attention. I cautioned at the time that the statement would be viewed as hawkish, and so it was. Second, the SEP projections were more optimistic about a pickup in growth in the second half of the year relative to the market. Third, the outlining of a taper path was taken by the market as making an early taper more likely. In talking to market participants, the base case is now a taper in September. In

other words, a lot of market participants think that the data now have to achieve a test of being sufficiently soft to overcome that presumption. That's a bit different than just letting the data speak. Fourth, our communications weren't perfect. That's an understatement. It was noteworthy to me that in the current primary dealer survey, we got the lowest communication grade that we've ever received. Fifth, there's no question that market positioning exacerbated the sell-off. Weak positions in carry trades were forced to exit, and bond mutual fund flows reversed. Also forced selling by the mortgage REITs exacerbated the sell-off in the agency MBS market.

So what message do we take about all that happened in the financial markets since the June meeting? First, humility about what we know and don't know in terms of how market conditions will change in response to our communications and actions. And, second, caution about proceeding too quickly just on the basis of a forecast. I hope we'll all remain open-minded about what the right next step is and let the data guide us.

CHAIRMAN BERNANKE. Thank you. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. Summertime is travel season. Some of you may recall that before our June meeting I embarked on a road trip from San Francisco to New York. I reported reaching Denver in a surprisingly short time, and while fearful of getting stuck there, I expressed my hope that progress would continue with a similarly rapid pace. Now, I'm sure you must be eager for an update. So let me say that I considered the June employment report sufficiently encouraging that after its release, I had anticipated that I'd be pulling into Kansas City just about now, where I planned to pay a surprise visit to President George. Unfortunately, incoming data since then has brought home the reality that the slog across Kansas may well take a considerable time.

As I mentioned, the labor market report was reasonably encouraging. The payroll gains for June and upward revisions to previous months combined to paint a picture of steady job gains of around 200,000 a month since the start of the asset purchase program. And even though the unemployment rate held steady, labor force participation rose. But broader measures of underutilization, including discouraged workers and those working part time for economic reasons, rose sharply, reversing all of the declines seen earlier this year. What is also important is that these stronger employment gains appear to have occurred in the context of sagging GDP growth, and, like others, I see this as a worrisome omen concerning our likely future progress.

The Tealbook's estimate of first-half GDP growth is now $\frac{1}{2}$ percentage point lower than in June, and some outside tracking estimates of second-quarter growth are even lower than the Tealbook. A sizable fraction of the downward revision is concentrated in private domestic final purchases, the spending component that the staff views as having the highest signal content. Household spending, in particular, seems to have softened relative to what was expected in June. The downward revision to first-half output growth, combined with relatively strong employment gains, implies that labor productivity growth was actually negative during the first half of the year, running far below even the most pessimistic estimates of structural productivity growth in the wake of the recession and its aftermath. For some time now we have clung to the story that this reflects payback for the outsized productivity gains in 2009, but at some point this normalization will surely have run its course and productivity growth will inevitably pick up. The prospects for further labor market improvement, therefore, rest critically on seeing a sizable acceleration of aggregate demand, production, and income.

The Tealbook baseline envisions just such an acceleration beginning in the second half, and I think the staff has laid out a good case. I agree that the weakness in consumer spending in

the first half may well have reflected an unexpectedly rapid reaction by households to the tax increases legislated at the beginning of the year. More broadly, and assuming no major debacle around debt ceiling negotiations, then the waning of fiscal drag during the second half of the year should provide a substantial lift to economic growth. Consistent with the Tealbook assessment, it was encouraging to see that the Michigan consumer sentiment index has rebounded to its highest level since 2007; motor vehicle sales also came in quite strong. This increases my confidence that the recovery, thanks in part to our policies, is successfully weathering the worst phase of fiscal drag, and that substantial underlying momentum in private spending will start showing through to economic growth as the year progresses.

That said, I was struck by the number of commentators who, following the Chairman's press conference, remarked on the Fed's optimistic views. While I can largely accept the Tealbook projection for real activity as a modal outlook, I see the risks as being tilted decidedly to the downside. First, the projected acceleration is driven by a substantial step-up in PCE growth, accompanied by a modest but steady decline in the saving rate and a further rise in the share of consumption in GDP. But there are several reasons why consumption spending could fail to accelerate to such an extent. For one, with painful memories of the crisis still fresh, households may respond more cautiously to paper wealth gains, as they could easily prove to be transitory. They are also probably less able now to extract increased housing equity for spending. Finally, these gains may also have accrued predominantly to higher-income households with a lower marginal propensity to spend. The alternative scenario labeled "Consumer Restraint" illustrates how strongly the projected GDP acceleration, and thereby the further improvement in the labor market, relies on consumers stepping up once again. Residential construction has been one of the bright spots over the past year, but there are also

significant risks to the Tealbook forecast due to the recent run-up in mortgage rates. Obviously, monthly data on starts and permits are noisy, and it's implausible at this early point that the recent weakness in housing starts could be attributable to mortgage rate increases. But given the still very tight standards in residential mortgage lending, I worry that even modest declines in affordability may have a notable impact on housing demand.

Turning to inflation, the CPI release for June at least points to some stabilization in core inflation. But there are downside risks here, too. The two key components of core PCE prices that have shown unusually low readings lately are medical services prices and the nonmarket component of the PCE. But even if these two categories of prices had increased in line with their more normal patterns, the 12-month change through May in core PCE prices would only be about 1¼ percent. The economy is still sufficiently fragile that a large and sustained miss on inflation to the downside could become entrenched, as highlighted in one of the scarier Tealbook scenarios. Even setting aside the risk of such a bad scenario, continuing misses on our inflation objective to the downside imply higher real interest rates, which serve to restrain economic activity and make it even harder for stretched borrowers to reduce their real debt burdens.

I could continue to elaborate on further downside risks such as those pertaining to global growth and the impending debt ceiling, but I don't mean to deny that there's a decent chance that with fading fiscal drag, the recovery will finally pull out of Governor Tarullo's mud, and I will reach Kansas City in reasonable time. Before endorsing this conclusion, though, I'll need to see signals in incoming data that economic growth is strengthening, employment gains are continuing apace, and inflation is, in fact, picking up. Tomorrow I'll discuss my views on the implications of the sensitivity to incoming data for our policy decisions.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. Despite the volatility in rates since our June meeting, the bankers reported a continuation of the trends that they've been seeing since the first of year: slow but steady improvement in the financial condition of their customers and their markets. Many reported that the improvement that had first been visible only in selected industry segments, product types, or geographic markets was now spreading more broadly. I thought it was telling that most of them didn't even mention the intermeeting rate volatility until asked about it, and even then the only business consequence they reported was a reduction in refinance applications. They said purchase mortgage applications, however, seemed to be holding up. A few others said that they viewed the volatility as a wake-up call that rates would, indeed, go up someday, and while most still believe they are positioned to benefit from higher rates, they are now paying close attention to vulnerabilities at different points on the yield curve. It's a good thing they are paying attention because in the current-quarter earnings calls analysts have focused their questions on how the banks expect their performance to be affected as rates normalize.

I was a little surprised at how sanguine even some of the biggest players in mortgage lending were about the drop in mortgage applications. They pointed out that they always knew the refi boom was temporary, and the increase in rates came just a little sooner and faster than they had expected. It's still too early to tell how this volume change will play out. I talked to one player who expected capacity to shrink rapidly, and another who said they'd never fully staffed for refis in the first place. Some banks are adding to their purchase mortgage sales force and shifting fulfillment units from refi into purchase mortgage originations, and one banker reminded me that the purchase mortgage battle is fought through the relationships with Realtors and builders rather than directly with borrowers. Ultimately, the purchase market will get much

more competitive, but that could play out through more aggressive pricing, reduction in loan standards, or a shakeout in the number of lenders. However, it will probably be late into this quarter or even into the fourth quarter before reductions in applications actually show through into lower production, as loans with rate locks are still working their way through the pipeline. And a number of potential borrowers are reportedly still in the money and likely on pause waiting to see whether this is a blip or a turning point in rates. Still when rates do turn, the mortgage market is likely to be predominantly a purchase market for a long time to come, as most borrowers have already seen the lowest rates they may see in their lifetimes.

The prominent factor in the home purchase market right now is still supply. A banker from a small Florida bank provided a vivid example. He told me about putting up a bank-owned house for sale with the price of \$110,000. They had 50 bids almost immediately. They discarded 40 because they had financing contingencies in them and sold it for the top cash bid of \$150,000. Now, I won't be updating the Yellen index anymore, but I still believe that the housing recovery has a lot of power that hasn't yet shown through, and that the signals in house prices are flashing bright green.

I'd like to end by stepping back one last time to point out that consumers and businesses have largely accomplished the task of deleveraging. Lower levels of debt combined with refinancing into low rates have brought debt service down to historic lows. Credit quality, with the exception of the backlog of problem mortgages, is within the range of historic norms, and in many product categories significantly better than normal, as portfolios are increasingly dominated by recent-vintage credit. Banks are well capitalized, overflowing with liquidity, and anxious to lend. The scars of the downturn are still fresh enough though to keep most from getting complacent about credit risk, especially in construction and land development, consumer

or mortgage lending. The Credit Card Act has probably tightened standards for credit cards permanently, but, in a way, that's ultimately healthy for consumers and the economy. Mortgage standards will be tight, and mortgage loan pricing will be higher than it might have been for many years to come, as lenders adapt to the new regulatory environment, struggle to incorporate the risks of reps and warrants and the cost of default servicing, rebuild origination and servicing platforms, and anticipate the consequences of GSE reform. But despite tight mortgages, demographics will win out. Households will form, and housing demand will remain hot for many years.

I really had hoped that in my time here the economy would fully recover, that I might experience what it was like to worry about the economy overheating or even to vote to raise interest rates. But I will have to be content with having witnessed as full a credit recovery as we are likely to see. When I first arrived here, I was advised to focus on what I knew. So I focused on credit, and with that in good shape, I'm going to leave the rest to you. [Laughter]

CHAIRMAN BERNANKE. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. The interventions by the rest of you so far have confirmed what I'd come to believe over the past several weeks, which is that the fragile consensus toward which we were moving six or seven weeks ago has now been drawn into question again. By that, I mean the notion that after the fits and starts to which Janet and others have alluded, there was, I think, an emerging view—not shared by everyone here but by a lot of people—that the headwinds or the mud or whatever metaphor you want to use had sufficiently abated or sufficiently dried that the conditions were present for some real self-sustaining economic growth, and the question was would the fiscal drag keep that self-sustaining momentum from really getting going. And most of us thought that what we're going to be

looking at this year was just that question of the impact of the payroll tax snapback and sequestration. I think with Jeff's intervention last time, which he's recounted again today as his capitulation to the persistence of a growth trend around 2.1 percent, we actually had a preview of the old set of questions that we had debated for three or four years coming back to us. And I hope that we're not back in that realm by the end of the year, but it seems to me, at least, that it's going to be considerably harder than I had anticipated just a couple of months ago to figure out within the next couple of months whether, in fact, we've got that kind of self-sustaining momentum.

The Tealbook continues to project a fair-sized uptick in economic growth over the next few quarters, and if forced to take a position, that's still probably the one I'd choose, although with a slightly smaller increase in economic growth. But it's really difficult, as many of you have already said, to survey the information and revisions to the information that we've received since the June FOMC meeting without having at least some greater doubt about this proposition and, indeed, the assumption of greater underlying strength in the economy. In particular, as Janet just said, the weaker PCE is a little hard to explain away solely by hypothesizing that the impact of the payroll tax snapback may have affected consumer behavior a little more quickly than expected. In fact, the Tealbook doesn't try to do that; they've also marked down the underlying pace of consumer spending. It's not clear to me how one would allocate the various proportions of revision between those two explanations. And with the savings rate having fallen pretty sharply already in the second quarter and with no strong prospect of significant wage increases, the trend in consumption is certainly a lot less clear than it appeared to be just a couple of months ago. It would have to get a pretty big boost from the wealth effects of equity and

housing market increases, a boost which is presumably less likely to be realized than in the go-go days when people just pulled equity out of their homes at their friendly neighborhood bank.

Now back to Jeff's self-described capitulation. It's still possible, maybe likely, that surrender was premature, that reinforcements will be coming around the bend, that the negative fiscal forces will be in a gradual retreat, and together that will produce the turnaround expected by the Tealbook. But as I said, I suspect it's going to be hard to figure that out in the next several months, particularly because I think figuring out exactly what impact sequestration is having has proven to be more difficult than we expected. That is, the notion that you could just plug the numbers into the model and that was going to give you the effect always seemed to me a little bit troublesome, given the nature of the spending and the cutbacks and the furloughs and all the rest. But I think that has been proven even more so. It's really hard to figure out exactly when the effects are going to be felt, even when nominally the cuts by the agencies are taking place in a staged fashion. Add to that the fact that, all other things being equal, I'd expect some slowing in job growth, lagging the slowdown in GDP growth that we've just experienced, and it's my overwhelming expectation that things are not going to clarify over the next few months.

If it turns out that the assumption of more underlying strength in the economy looks increasingly to be ill-founded—again, that wouldn't be my modal expectation, but it seems to me a higher likelihood than many of us thought not long ago—then more of us are going to have to join Jeff in capitulating to the persistence of disappointing economic growth. But here I think the terms of surrender become very important. Jeff explained his own decision by reference to some combination of Bayesian updating, increased skepticism that remaining headwinds will abate, and greater emphasis on possible structural constraints on growth for a number of years ahead—mostly, but I think not exclusively, productivity constraints. The alternative basis for

surrendering, of course, is the conclusion that there's not as much self-sustaining underlying strength in the economy anyway because we're in what roughly, and somewhat imprecisely, one could term a multiple-equilibrium situation. That is, right now economic growth is stuck at a lower level because demand won't rise without greater income. Income won't rise without some greater combination of business investment and faster job and wage growth. And these won't happen without more demand. So the hope has been that some element in this relationship could be changed through monetary policy stimulus—fiscal stimulus days are long gone. Income could be boosted, and then the more virtuous cycle might get started, leading us to a different, preferable cycle than the one we may be stuck in right now.

I hope that the underlying strength story wins out through the course of this year and we don't have to figure out how much we attribute to structural damage to the economy, how much we attribute to a continuing aggregate demand shortfall. But I think we're just going to have to wait and see, and as I said, to me the most important takeaway from the past couple of months is that clarity seems less likely in the next few months than I would have thought it would have been. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. Since the time of the June Tealbook, the economic news hasn't been extraordinarily encouraging. Consumers are not spending as rapidly as they did earlier this year, and economic growth remains very slow. This isn't completely surprising because figures on household incomes have been lackluster for some time. Moreover, this lackluster spending news reflects data from June or earlier, before any impact of the recent backup in interest rates likely had much chance to affect the real behavior of households or businesses. Once these effects on mortgage rates move their way through the real economy,

growth may be even less encouraging. Still, confidence is moving up, and expectations about household income seem to have improved, which is remarkable in light of the drag being imposed on the economy by fiscal policy.

Labor market conditions have become a little better, but they're still far from normal or acceptable. The unemployment rate has hardly budged since March, and monthly payroll gains have yet to move consistently above 200,000 per month. Moreover, underemployment is still rampant, with a large share of folks still working at part-time jobs because that's all they can get. In addition, we still have more than three-quarters of a million Americans reporting that they're too discouraged to look for work.

At the same time, inflation remains very low. By almost any measure, 12-month inflation has been falling and now stands well below where it was a year ago. Some of this is probably transitory movement in a usually noisy series, but there are reasons to believe that a good part of the low inflation news is reflecting an underlying and current trend in the economy. After all, if businesses aren't paying much higher prices for their imported inputs, aren't paying their workers much more, and are seeing only so-so demand for their products, why would they consider now a good time to put through price increases? As a consequence, low inflation likely could be with us for a while.

At this point the economy is continuing on its slow and steady path of improvement. In the absence of bad shocks, spending is likely to continue to increase, the labor market to improve, and inflation to stay somewhat below target. But I see considerable downside risks surrounding this outlook. Chief among these is the possibility that policymakers, both of the fiscal policy and monetary policy persuasions, will cause confusion and uncertainty and may even tighten policy over the second half of this year, unnecessarily curtailing the pickup in

economic growth that might otherwise occur. In particular, there's a risk that our pre-tapering announcements could take off the table the possibility of faster growth. If markets think we are telling them that economic news, even marginally better than what we've seen, is cause for beginning to normalize, that normalization process can, in turn, reduce the odds of improved performance. Here the operative word is "marginally" better, which markets understand is different from substantially better. We really need improvements that are substantially better, not merely marginally better, if we don't want growth adversely affected by the reduction in purchases. In other words, communicating our own impatience to end purchases could itself pose a threat to the pace of growth in the economy if the economy is just marginally better, and then we could see that the economy is in a position in which the loss of accommodation has been premature. Disingenuous tapering is a downside risk. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Stein.

MR. STEIN. Thank you, Mr. Chairman. Rather than talking about the outlook, I thought I would look back a little bit at events in markets over the past couple of months and try to draw a few lessons. In that regard, two questions you might ask about what happened. One is a question about changes: Why is it that, in the wake of our June meeting, rates and spreads moved so strongly in response to what apparently, we think, was relatively little news about the path of policy? The second question is about levels: What do we make just of the levels of rates and spreads right now? On the former we had this very nice memo from the staff, which, in part, appealed to a variety of market dynamics that people have mentioned—unwinding of carry trades, delevering, convexity hedging, outflows from bond funds, all of that. This all feels perfectly plausible. I think it is very hard, as we know, to do a precise attribution. It's harder still to have seen any of this building up in advance. On the levels question, it's interesting, if

you knew nothing about where we had been, and you just woke up and looked at your Bloomberg—at real, nominal yield curves, equity prices—things might feel kind of reasonable and grounded in fundamentals in the sense that now, roughly speaking, the Kim–Wright term premium on the 10-year rate looks like it’s near zero, which is still a percent low relative to historical norms and is what you would expect, given aggressive QE. The 10-year real rate is now about 0.4—again, quite low by historical norms, but what you might expect, given the state of the economy and our policy.

What strikes me as being harder to explain based on fundamentals is the configuration of rates when they were at their lows of a few months ago. Just a few months ago—the beginning of May, end of April—the nominal 10-year was about 1.6. The term premium was minus 100, in that ballpark. The real 10-year rate was minus 0.72. So, a question is, what was that all about? On the one hand, I think it was obviously related to our policy, but it’s important to draw a key distinction. One view was it was our policy directly—that is to say, the nominal 10-year rate was low because of the expected path of the short rate plus the cumulative direct impact of our purchases; that was what was pushing down the term premium. I’d call that sort of a direct, Fed control view of the long rate. An alternative view is that we were, again, responsible for long-term rates, but it was a little bit more indirect. That is to say, term premiums were low not because of just our buying but because something about our policies was recruiting other people to do some buying alongside of us, either because there was an incentive to reach for yield or because we gave a set of “whatever it takes” assurances that lowered volatility and made it, therefore, more comfortable for people to take extra risk in the pursuit of yield. I’ll call this the Fed recruitment view of monetary policy.

My interpretation is that we've learned in the past couple of months that the evidence leans a little bit toward the Fed recruitment view. I just want to be clear. I don't think there's anything to be ashamed of. It's useful. You know, if you have a big job, it's useful to enlist help. [Laughter] I'm not trying to be funny. I think this recruitment mechanism is quite central to how monetary policy works, period, in normal times and in extraordinary times. For example, there's the very striking fact that just conventional monetary policy has a very powerful impact on 10-year, 20-year forward real rates. It's hard to get that out of the standard channels. One way to get it, and there's some evidence for this, is that when the FOMC lowers short-term rates—and you can see this in the data—banks extend their maturities. They're buying, and you can see the dealers having to sell to them. It looks like a move in term premiums rather than a move in expectations, and it looks like a move in term premiums that kind of reverts over 6 to 12 months. So I think it's always part of conventional monetary policy, and it's a good thing that there's this mechanism. Otherwise we would have much less traction over the real economy. It would be pretty hard to move long-term real rates. Again, nothing to feel bad about.

Of course, there is a flip side, which is that if you're recruiting others to do most of the work for you, you can get more done, but if they're going to go on strike all of a sudden, then you've got a little bit of a problem. In other words, if your control of long-term rates is not direct, but it is indirect, almost by definition, one holds the steering wheel a little bit less tightly, and even if you make small changes in the things that are directly under your own control, rates may move. And I think a corollary is that if you want to really have a very strong effect on term premiums—really get the blow, get the kind of configuration of rates that we had three, four months ago—you're going to have to accept as almost part of the bargain that there's going to be

some conditional volatility associated with that because, again, you're getting some of that from the behavior of others, and you don't have as direct a handle on that.

I wanted to say all that by way of leading up to the idea that when we talk about the interplay of monetary policy and financial stability, this is the kind of issue that arises. I think sometimes the phrase "financial stability" throws people off because it's not just about a big financial institution keeling over or something like that with a very low probability. I think maybe it's often something much more mundane. It's the tradeoff between, on the one hand, having rates very, very low versus, on the other hand, having an elevated probability of a sharp widening of rates and spreads at an inopportune time. That just makes it harder for us to go about our business. For example, imagine a situation where the 10-year yield after the June meeting had not gone to 2.5 or 2.7, but had gone to 3.25. That's the kind of financial stability thing I'm talking about. It's not about institutions tipping over a la Lehman, but I think one would have considered that kind of a nuisance insofar as our policy goes. I say this by way of framing because as we think about things going forward, such as making further commitments in the way of forward guidance, those sorts of tradeoffs loom a little bit in the background. To the extent that we can bring that to bear in our framework for thinking about this stuff, it might be helpful. Thank you.

MR. FISHER. Mr. Chairman, may I ask a question?

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Governor, is it possible that our having taken so much out of the market might be exacerbating this volatility and amplifying the impact of this recruitment aspect that you mentioned earlier, because inventories are low, not just in mortgage-backed securities, but they're low in other issuance as well? And the dealer capacity to deal with market volume, even

in high-yield or investment-grade securities, has declined. I'm just curious if that's what you're talking about.

MR. STEIN. Yes, I think there was a separate effect. In other words, I was holding fixed in my mind dealer capacity for absorbing and was conjecturing—I mean, it's no more than a conjecture—that aggressive policy increases the temptation of others to invest alongside of us. So when those guys move for any fixed dealer capacity, you're going to get—

MR. FISHER. But if there's limited capacity, it could exacerbate the movement?

MR. STEIN. Potentially, yes.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Governor Powell.

MR. POWELL. Thank you, Mr. Chairman. The excellent staff memo on recent interest rate developments and many around the table have done an impressive job of both analyzing the market reaction after the June meeting and unpacking why it was so unexpectedly sharp. Of course talking about exit is talking about exit, and by doing so we did send a signal. But in my view, that signal was a modest one, and I don't think there is any one narrative that certifiably captures what happened. My own executive summary would be that there was a modest adjustment in policy expectations, an increase in uncertainty about policy, and then a lot of market dynamics amplifying these changes. There was a scramble to exit from the many forms of carry trades and to hedge increasing duration as MBS rates increased. The dealers were not interested in taking a lot of balance sheet risk in a turbulent market. Investors took their money out of bond funds, and there was a crush at the exit door. Rates moved more than expected. I think another critical element of the story is that term premiums were at unsustainably low levels. The market was ripe for a correction. It was just a question of time and the arrival of the

right trigger. Market participants generally now say that we are in a better and more sustainable place as far as the state of the market is concerned. If we had waited for three or six more months, or another year, the reaction may well have grown larger and potentially more damaging to the economy.

One of the things that this understanding of events suggests to me is that there can be high cost to issuing open-ended commitments. Risks can build up around these commitments in ways that are difficult to observe in real time and that are difficult to unwind without risking a sharp tightening in financial conditions and damage to the economy. A related thought is that it would be great to have better radar, if that's possible. Others have noted that many market participants did tell us to expect a big reaction at the first sign that purchases will come to an end. Of course, there was no way to know in advance that they would be right. We monitor the market for bubbles, for leverage, and for myriad other harbingers of financial instability. But we also know, and we hear frequently from Nellie and others, that it is very difficult to observe the buildup of risk in real time. So the danger may not be that we will see the global financial crisis reenacted anytime soon. The nearer-term risk may instead be that the process of exit itself will provoke a sharp and damaging tightening in financial conditions, and that risk may grow as rates remain very low over time, particularly if we add more open-ended commitments.

I think all of this does leave us in a better place in two important ways. First, we have let the market know that QE is not infinite. We did so at some risk, but things now seem to me to have settled down in a place that is more realistic and sustainable, and that should not pose a major headwind to economic growth. Second, we now have a working definition of “substantial improvement in the outlook for the labor market”—specifically, a reduction in unemployment to 7 percent in the context of supportive economic growth and inflation. Forecasts generally see us

getting to that point around the middle of next year, and working back from that, we will begin to dial back purchases later this year, as long as the incoming data are broadly consistent with the June SEP forecast. The market is seeing and beginning to accept this path, and the dealer survey currently has the largest probability mass on September for the first reduction in purchases. So we have a new rule for reducing and ultimately stopping purchases. It is important that our actions going forward be consistent with that rule. The date of the first reduction in purchases should matter less now. We need to let the data do the driving.

That leaves, finally, the question of how the path of the economy matches up with the conditions we have set to guide policy on asset purchases. And I would characterize the data since the June meeting as mixed. For me, the main positives are the strong June employment report; the SLOOS was very positive; consumer confidence is the highest it has been since before the crisis, although it is still below historical normal levels; auto sales are back at their pre-crisis high. For me, housing is still a strength, and I believe it will be a growing strength for some time now. The real concern, from my perspective, is that I thought that a big part of the platform on which we were standing at the June meeting was the narrative that private domestic final purchases were standing up bravely in the face of all of these fiscal headwinds. And it was a great narrative; it meshed with the high consumer confidence and the rising housing market. It all fit together very well. Unfortunately, the spending aspect of it has been badly damaged, and I think that does present a bit of a threat to the further progress in the labor market test. In any case, that is really for the September meeting, and we are going to learn a substantial amount about the July and August employment reports as well as incoming data on inflation and economic activity.

More fundamentally, I think of us now as being in execution mode. We have a stopping rule for asset purchases and we have thresholds, and we have the decision structure we've articulated around them. With the stopping rule in place, the question of efficacy to me is now a sideshow. What is important is that we manage the exit in a credible, transparent, and predictable way, guided by the data. It is not going to matter much in the end whether the balance sheet peaks at \$4 trillion or \$4¼ trillion or \$4½ trillion, or whether we first reduce purchases in any particular month. It is going to matter a great deal that we follow through on our commitments in a credible way. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much. Let me try to summarize. The national economy is giving mixed signals. Some see a step-up in economic activity in the second half, with increasing momentum thereafter, and growth in private final demand has been resilient. However, some saw economic growth proceeding at roughly its recent 2 percent pace, assuming no pickup in productivity growth. Others note that the possible growth pickup may be threatened by higher interest rates, higher oil prices, fiscal uncertainty, and other factors. In short, confidence about a near-term pickup is not particularly high.

In the household sector, consumer sentiment is up, balance sheets are stronger, but households remain price sensitive and cautious. Spending is relatively soft outside of autos. The trend of consumption is tough to discern. One issue is that consumers can no longer easily extract equity from their homes.

In the labor market, unemployment has declined, but some other indicators, such as part-time work, have not improved. Job gains have been at about trend at around 200,000 per month recently. This is in part reflecting low productivity gains. Because participation rates have fallen, the employment-to-population ratio remains much lower than before the recession. An

important question is whether unemployment or the employment-to-population ratio is a better measure of labor market slack.

In the housing market, residential real estate conditions remain strong. Sales, prices, and construction are up; inventories are low. Some builders complained of shortages of labor and land. Commercial real estate has improved in some Districts.

In the business sector, anecdotal reports have been varied, positive in some Districts, more cautious in others. Manufacturing indicators are stronger in a number of Districts. For example, summer shutdown of auto plants has been shortened or eliminated. Some strong sectors include energy and high tech, and firm balance sheets are in excellent condition.

On the fiscal situation, there have been many more comments by directors regarding the effects of the sequestration, although the quantitative effects are hard to judge. Fiscal factors in general are a significant drag. The resolution of the debt ceiling is a downside risk.

Global economic growth overall is modest, suggesting that net exports will not be a major source of growth going forward.

In the financial sector, financial conditions, including higher interest rates, have become more restrictive, which is a concern. For example, with higher mortgage rates, affordability of housing has declined. However, not all thought that this was a serious problem, as equity and house prices have continued to rise. Banks are well capitalized and looking to make loans, though terms are tighter for mortgages and credit cards. The SLOOS was positive, demand for small business loans is up, and in general banks continue to see improved conditions with purchase applications for mortgages having held up, even though refi demand has dropped sharply.

With respect to inflation, inflation remains quite low both in the total and in the core. Special factors have pushed core inflation down, and inflation expectations are stable. But inflation has not yet firmed, as the models might predict. However, measures of underlying inflation have been stable, and views differed on inflation prospects. Firms have little pricing power, and wage pressures are low, reflecting weak labor market conditions. Firms' concerns about energy costs are limited, although the blend wall is an issue for gasoline prices.

With respect to more general observations, rate guidance might benefit from a lower bound on projected inflation as the condition for a rate increase. Uncertainty about the Fed's reaction function accounts for much of the increase in term premiums, but market dynamics and the recruitment of risk-takers has also played a role. Any comments or questions? [No response] Let me just add a few comments.

It is difficult to find a center of gravity in this discussion. I guess I thought that people overreacted just a little bit to the downgrades in the first half. For example, GDP growth has averaged only 1 percent over the past three quarters, but GDI growth has averaged 4 percent over the past three quarters. If you average those, as we have been told to do, that is more like a 2 to 2½ percent underlying growth rate, and that is consistent with the growth of the private final domestic purchases of 2½ percent over those three quarters and consumption a little bit over 2 percent over those three quarters. So generally it seems—and here I guess I would align myself with President Lacker—that we are seeing 2 to 2½ percent real growth. I think the first half was artificially depressed to some extent, and so I would expect to see somewhat stronger growth in the second half. Admittedly, there is still a puzzle about the relationship between that rate of growth and our continued improvement in the labor market. The low productivity we are seeing has allowed job gains to continue in the face of low realized GDP growth. But if GDP

growth returns to a more normal level, we may still see continued gains in jobs. There are also some other positive indicators, which people mentioned. The wealth-to-income ratio is close to 6, which is above long-run norms. Consumer sentiment measures are up quite a bit. Stock prices are up. Job openings are up, even though hiring rates have not responded.

I'm not trying to be Pollyannaish, of course, but I do think that the first half reflects in part some temporary factors, notably the fiscal issues. And, as we discussed at the Board meeting yesterday, there is a lot of uncertainty about exactly when the incidence of the sequestration and the other fiscal measures will begin to mitigate. But at some point it will. I think the other factor that played a role temporarily—putting aside inventories, which is certainly temporary—is foreign demand. We had quite weak trade numbers recently. There I guess I am, perhaps like the Vice Chairman, somewhat concerned. The advanced foreign economies seem to be doing a little better, but they are all starting from very low and very slow growth positions. There is a lot of uncertainty with respect to what is happening in China and how that will ramify for other emerging markets. And that, in turn, obviously will affect the U.S. economy. Again, I think while there is some underlying momentum in the U.S. economy, there are also some factors—in particular, fiscal and foreign developments—that make it hard to judge the timing for any improvement going forward.

I wanted to say a word about housing, because that got a lot of attention. I think it is too early to make any judgment about how much the increase in mortgage rates is affecting things. There have been some negative anecdotes. Homebuilder stock prices have gone down. But I think there are also some reasons to think that the ultimate impact on real GDP may not be that great. Just a few observations. First, in principle, real, not nominal, mortgage rates are what should matter for house purchases. Of course, I understand that nominal rates affect monthly

payments and that people look at monthly payments, but by “real” I mean the nominal rate minus expected house appreciation. In an environment where people see house prices going up, they will be more likely to buy for a given mortgage rate. The survey data overall remain quite upbeat. The homebuilders’ survey is quite positive. The Michigan survey says that “a good time to buy” is at a high level. One of the constraints we have seen on house purchases up to now is supply constraints, both in terms of construction and in terms of existing inventories. The result of that has been relatively strong pressure on prices. Presumably some of those bottlenecks will ease. That means that prices won’t go up as fast, but that in turn will help affordability. We ought to see more real activity in the housing sector. A lot of people have noted the very low levels of household formation—the canonical 30-year-old living at home. We actually have a 30-year-old living at home who is not even related to us at this point. [Laughter] I don’t know how that happened exactly. Now, this may or may not mean that household formation and household purchases will be strong, but there certainly is pent-up demand. If it doesn’t manifest itself in terms of homeownership, it will manifest itself at some point in terms of apartments and other kinds of housing construction. And, finally, a few meetings ago I did a little bit of an exercise in which I talked about how much a given change in house construction and house prices, would affect GDP. And because housing is only 3 or 4 percent of the economy, it turns out those effects, while meaningful, are not massive. As long as the effects on housing are moderate, the impact on GDP growth should be relatively small.

I remain—I wouldn’t say optimistic because that might be too strong—of the view that we have had for the past few meetings, as Governor Tarullo alluded to, that there is some momentum in the economy, and there is a good chance of a decent second half. I think I would still adhere to that, recognizing all of the uncertainties that people have all pointed to, in

particular the significant uncertainty about the timing of fiscal effects. And in mentioning fiscal policy, I would also say that I am less sanguine about the resolution of the debt ceiling issue than the markets appear to be, and that could be a problem. And if it happens, it could happen exactly around the time of our next meeting, which would not be great timing.

On inflation, I want to agree with President Bullard and others. I think while it may be that inflation will pick up from here, even 1½ percent inflation is not a good outcome. It is not just because we are embarrassed because we can't reach our target, it is because low inflation actively slows real economic growth. It raises real interest rates. It affects debt burdens. It affects expectations. It affects revenue expectations on the part of firms as they think about their planning. So I do think that the low inflation deserves equal attention to what is happening on the real side as suggested by our mandate. And while I don't have a strong view, I do think inflation will pick up some. The general view seems to be that it will be a while before it gets to 2, and I do think that's a problem, and we should acknowledge that as being a problem.

Those are just a couple of observations. Again, I thought today was a very interesting discussion. And I guess I would agree with Governor Stein that, if nothing else, we learned a lot in the past seven or eight weeks. If it's okay with everybody, I think it would be time-effective to ask Bill to introduce the policy go-round, and then we can go have dinner. Thank you.

MR. ENGLISH.³ I will be referring to the handouts being distributed. The alternatives are the same as those we provided in the Tealbook except for a small correction in paragraph A(1) that we've shown in blue.

Over the remainder of this year—if the economy evolves roughly as expected—the Committee will likely be focused on the timing and extent of reductions in its asset purchases. However, as noted in the top-left panel on page 1, you will also be considering at least three other significant, and related, issues. First, whether (and if so, when) to provide in the postmeeting statement further guidance about the contingent plan for bringing the purchase program to a close, along the lines of the Chairman's recent public communications. Second, how to allocate reductions in the

³ The materials used by Mr. English are appended to this transcript (appendix 3).

pace of purchases across Treasuries and MBS. And third, whether (and if so, how) to change your forward guidance for the federal funds rate.

With regard to the first of these issues, as noted to the right, providing further guidance about the Committee's plans for the purchase program could have a couple of benefits. First, it could clarify that the Committee agrees with and endorses the Chairman's recent statements, thereby settling any governance issues. Second, and more importantly, more explicit guidance—for example, through the linkage of the purchase program to economic indicators, as in the language we offered in the Tealbook—should foster automatic adjustments in market expectations for total purchases as the economic outlook changes, which could help avoid surprises down the road and enhance the effectiveness of policy. However, providing a more explicit plan could have drawbacks as well. For example, if the economy performs poorly so that purchases would continue for some time under the plan provided, the result could be either a considerably larger-than-expected purchase program or a need to reduce purchases for reasons not emphasized in the plan, such as concerns about efficacy and costs.

As shown in the middle panels, expectations for asset purchases currently appear to be well aligned with the information provided by the Chairman. The results of some recent surveys (shown in the left panel), indicate that most market participants expect the first reduction in the pace of purchases to come later this year. And, as shown to the right, the median dealer in the Desk's survey expects the purchases to be wound down by the middle of next year.

As input on the second issue I highlighted, that chart also shows that the dealers generally expect purchases of Treasuries and MBS to decline roughly in parallel. As we described in the box in the Tealbook, staff models indicate that differentiating between Treasuries and MBS when reducing the pace of purchases is likely to have only small economic effects. That said, you might still choose different paths for the two types of securities; for example, you might maintain a higher level of MBS purchases for longer if you wanted to signal that, if mortgage rates increased significantly further, you would be willing to purchase more MBS than currently anticipated to help support the housing market.

Turning to the lower-left panel and the third issue—that is, possible changes to the forward guidance for the federal funds rate—a staff memo distributed for this meeting discussed a reduction in the unemployment rate threshold, the addition of an inflation floor, and the provision of information on the likely pace of federal funds rate increases after liftoff. As described in the memo, each of these options could provide some further support to the recovery. Of course, as the memo also noted, the estimated effectiveness of any of them would depend importantly on whether the public fully understood the change and viewed it as credible.

On that score, as Simon noted earlier and as shown in bottom-right panel, respondents to the July dealer survey appear to recognize that the current unemployment threshold is just that—a threshold, and not a trigger. A comparison of

the red and blue bars shows that many dealer economists see a significant lag between the time when the unemployment rate crosses 6½ percent and the time of the first increase in the federal funds rate.

At this point, you may see decisions on these issues as still in the future. And for now, with market expectations for policy more or less aligned with those of the Committee, and with the economic outlook not greatly changed, you may want to make only small adjustments to the statement, as in alternative B, on page 6.

The first paragraph of alternative B acknowledges that economic activity expanded at a “modest” pace in the first half of the year and notes that, while the housing sector has been strengthening, mortgage rates have risen somewhat. With second-quarter GDP growth likely to have been lackluster—we will see those figures tomorrow morning—the second paragraph indicates that the Committee expects economic growth to “pick up from its recent pace.” With regard to the inflation outlook, the last sentence of the second paragraph could be left unchanged from June or could express more concern about the recent low levels of inflation. Some of you may prefer the latter version as a way of signaling the Committee’s intention to defend its inflation objective from below as well as from above.

The only other wording changes are in paragraph 5, where we offered two ways to further emphasize the separation between the end of asset purchases and the first increase in the federal funds rate. The first uses language from recent Federal Reserve communications, stating that a highly accommodative stance of monetary policy will remain appropriate for the “foreseeable future.” The second avoids introducing that new wording, which may be seen as difficult to adjust going forward, and, instead, adds some details on what the Committee means by “a highly accommodative stance of monetary policy.”

According to the Desk’s survey, most dealers do not expect material changes to the statement at this meeting, except perhaps to note the weaker tone of recent economic data. Consequently, a statement along the lines of alternative B is unlikely to generate sizable changes in asset prices. That said, some market participants may note the absence of any new information on the outlook for the purchase program, and this might cause some confusion, given the information recently provided by the Chairman.

Alternative C, page 8, may appeal to policymakers who see the economic recovery as having progressed sufficiently to warrant a reduction in the pace of asset purchases at this meeting. Indeed, while the recent data on spending and production have been on the soft side, some of you may judge that, apart from the drag related to tighter fiscal policy, the underlying pace of growth is rising and inflation is likely to move back toward its 2 percent longer-run goal sooner rather than later.

The first paragraph of alternative C is slightly more upbeat about current economic conditions and emphasizes the recent gains in payroll employment. Like alternative B, the second paragraph points to an expected pickup in economic growth

but also notes that, “The Committee . . . has become (or is becoming) more confident that labor market conditions will continue to improve over the medium term,” and that it sees inflation over the medium term likely running “at,” rather than “at or below,” its 2 percent objective.

The third paragraph announces that, in light of the improvement in economic conditions (or alternatively, the outlook for the labor market) since last September, the Committee has decided to reduce its purchases, with several options included for the allocation of that reduction. To help cushion the possible reaction in markets to this policy change, the statement goes on to emphasize the Committee’s “sizable and still increasing” holdings of longer-term securities.

Paragraph 4 ends by noting that the Committee’s decisions are not on a “preset course” and spells out a state-contingent plan for further reductions in the pace of purchases. Paragraph 5 is basically unchanged.

While most investors anticipate a reduction in the pace of purchases later this year, a decision to make such a change at this meeting would come as a significant surprise. Interest rates would rise, perhaps substantially; the foreign exchange value of the dollar would likely increase; and equity prices would fall.

Alternative A, on page 4, may appeal to policymakers who want to provide additional monetary accommodation either because they see a deterioration in the real economic situation and outlook, or because they are concerned about the low level of inflation. Committee members may also want to adjust the stance of policy in order to offset the rise in interest rates seen over the past few months, which they may see as posing a risk to the ongoing recovery, particularly in the housing sector.

The first paragraph of alternative A is similar to that of alternative B, but it emphasizes that the unemployment rate remains elevated, while the second paragraph mentions that a substantial tightening of financial conditions would pose a risk to the economic outlook. The second paragraph concludes by pointing to the risks posed by very low inflation and notes that “with appropriate policy accommodation, inflation will move up to its 2 percent objective over the medium term, and possibly slightly higher for a time.”

The third paragraph is unchanged, while the fourth paragraph includes a conditional plan for reductions in asset purchases similar to that in alternative C. Of course, in alternative A, this language might be read as suggesting a longer period of asset purchases in light of the less upbeat assessment of the economy and outlook.

Paragraph 5 provides additional accommodation by lowering the unemployment threshold to either 6 percent or 5½ percent and providing guidance suggesting that so long as inflation remains well behaved, the federal funds rate is likely to rise gradually following liftoff.

Although some market commentary has noted the possibility that the Committee could lower the unemployment rate threshold, an announcement along the lines of

alternative A would come as a considerable surprise. Interest rates would likely fall, and equity prices would probably rise, although these effects could be muted if the statement were seen as suggesting that the Committee was less confident of the outlook, or if market participants simply found the statement confusing, coming on the heels of recent Committee communications.

Draft directives for each of the alternatives are presented on pages 11 through 13 of your handout. Thank you Mr. Chairman. That completes my prepared remarks.

CHAIRMAN BERNANKE. Thank you, Bill. Are there any questions for Bill?

President Rosengren.

MR. ROSENGREN. On the wording for paragraph 5, what do you think the cost would be of not changing the wording from the last meeting at all? If the goal of this meeting is to convey that we're not changing policy, do you think the changes in the words in both 5 and 5' are worth the possible misinterpretation of those changes in the words?

MR. ENGLISH. We agonized some, in the preparations for this meeting, over the extent to which the words should be changed to reflect a little bit of the communication over the intermeeting period, and the extent to which they should be left unchanged because you think expectations are basically where you want them. This was a compromise of sorts. It did seem, particularly early in the intermeeting period, that there was some real confusion on this point and that the purchases and information about the purchases seemed to cause movements in the funds rate path that required some pushing back against. So we thought it was worthwhile putting at least a little of that in the statement to make sure that that point is really clear, but it's a judgment call for sure.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. But you could argue that the primary dealer survey, if that's accurate, shows there's not a big problem to solve right now.

MR. ENGLISH. I agree. The chart at the bottom right shows that, at least in the dealer survey, these things are separated. I think the question—this was raised earlier—is, does the dealer survey really capture what market participants are thinking?

MR. POTTER. I think that's an important consideration for everyone after the last few weeks.

MR. ENGLISH. Right.

MR. EVANS. My question was on that point, if I could.

CHAIRMAN BERNANKE. Okay.

MR. EVANS. On that chart, I'm intrigued by Governor Stein's delineation of these two different ways of thinking about it, the Fed recruitment model and the Fed direct. And I've been trying to figure out what the signaling channel of our asset purchases might mean through this. Would anybody like to speculate as to whether or not, if the recruitment effect is right—and maybe we've knocked out some of that effect, and so then we're back to the Fed direct at this level of interest rates—then is it more likely that the dealers have got this right, that they're separating it? Simon, your comments suggested that markets are thinking very differently. So I'm wondering if that interplay helps resolve it

MR. POTTER. One thing is, we didn't run a complete experiment from the June meeting, because we had the communications later to try to deal with the confusion and keep some of the recruitment effect there.

MR. EVANS. That's true.

MR. POTTER. And I think that's what President Rosengren's question was about. How much do you have to reaffirm, during the intermeeting period, what was said in the statement if you're pretty happy where we are right now? Bill and I can try to help you with this, but we

don't have that much confidence. So you should probably ask yourself, which error would you like to make right now?

CHAIRMAN BERNANKE. President Fisher, did you have a question?

MR. FISHER. I'm not sure this has been answered, but, in the opinion of the staff of the Desk, is there likely to be any different market reaction between 5 and 5' in B?

MR. POTTER. We agonized.

MR. FISHER. I know you agonized, but what did you come down on? Is there much difference in terms of how you think the market might react?

MR. POTTER. I think that, given what we got in the dealer survey, people weren't expecting changes in this part of the statement. We saw four dealers expecting something about the contingent plan and four expecting something about the forward guidance. Not all, but many of them expect something in the first paragraph.

MR. FISHER. Right—just updated

MR. POTTER. I think that both 5 and 5' try to back up the message that the Chairman gave, and the issue for you is whether you need the explicit backing up or whether, just by printing off the same statement, you're basically telling them, "Everything is okay—we've understood you, and you've understood us." As I said, I don't think there's really anything more we can add than to tell you what the facts are now.

MR. ENGLISH. President Fisher, was your question about 5 versus 5'?

MR. FISHER. Yes.

MR. ENGLISH. I think both would be read as providing a little reinforcement of this idea. In some sense, it's a matter for the Committee. Paragraph 5 uses some words that were used successfully, I think, over the intermeeting period. They were noted, and they were

understood. So that might be a simpler approach. But some of you expressed concern about having to manage “foreseeable future” as time passes and maybe it becomes foreseeable. And in that case, you may want to avoid introducing those words and instead go with something like 5’.

CHAIRMAN BERNANKE. Okay. I’m going to call on anybody who wants to speak, but let’s not have the whole debate. Vice Chairman.

VICE CHAIRMAN DUDLEY. I’m going to comment on the very narrow question of how the market would interpret 5 versus 5’. My own view is that 5 is probably viewed slightly more powerfully, because the “foreseeable future” is going to be read as, “Why did they put those words in there? They put those words in for emphasis.” Paragraph 5’ does essentially the same thing but in more words—a little bit more complicated, a little bit less visible. I certainly agree with Bill that one of the problems with “foreseeable future” is, when is it no longer the foreseeable future? So I think 5 is probably a little bit stronger than 5’, but it has a few more problems in terms of, where do you take it from there over time?

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Yes. Thank you, Mr. Chairman. One concern that we had in Minneapolis about the “foreseeable future” language is that some might interpret it as the Committee saying that it has a poor outlook for at least many months to come, if not many years to come. “Foreseeable future” has a very long time line in front of it.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Yes. Thank you, Mr. Chairman. I have a question for Bill and Simon. I raised this point at the last meeting. We communicated about asset purchases, and we seem shocked that they pulled forward interest rate increases. By saying something about asset purchases we are also saying something about our outlook for the economy. And it just seems as

though the natural interpretation is that they carry that forward. In other words, they're rational forecasters, and they're looking ahead. And if they say, "Well, 2014 is going to be stronger than I expected; I'll bet 2016 is going to be stronger than I expected," they're going to pull everything forward. From that point of view, it seems less urgent to push against that. I'm wondering, what evidence is there against that view? You certainly said some things that were consistent with that notion—that it's just this latent inference they're making about the strength of the economy that drove the correlation between those two moves.

MR. ENGLISH. If that were the right interpretation—they didn't judge that the Committee was more hawkish than they thought; they judged that the outlook was better—then you would have expected to see a change in the outlook that they were reporting in the dealer survey. We didn't see that. So I think that's what you're trying to tease apart.

MR. LACKER. Wait. It's our outlook. They don't have to change their outlook.

MR. ENGLISH. No, they do, because there are the thresholds. They should be looking ahead, saying, "Here's my outlook for the economy. Given the thresholds, that's what that implies." If their outlook hasn't changed, you wouldn't have thought that they would have changed their assessment of the timing for the first increase in the funds rate

VICE CHAIRMAN DUDLEY. But this could be partly the distinction between the people who respond to the survey and other market participants.

MR. ENGLISH. Absolutely.

MR. LACKER. And the dealers move less, right?

MR. POTTER. Talking to participants who don't put contributions into the survey, we learned they'd be closer to Governor Raskin's viewpoint of why we did what we did in June. They'd be saying, "I'm looking at the data. It doesn't look as though my forecast got stronger.

They'll have these data as well.” “So why would you make that change? There must be some other reason that you were making that change.”

CHAIRMAN BERNANKE. Just for the record, we did anticipate that problem, and there was a lot of language in the press conference statement on how we were talking about asset purchases; we were not talking about rate policy. That didn't get through initially, and, after a bit of additional communication, eventually it seemed to get through. The idea behind this—and again I don't think we should debate it; you can think about it overnight—was just to reinforce the point that, while, for various reasons, asset purchases were meant to be a time-limited program at some point, we do intend that the rate guidance be a separate tool of policy, not perfectly correlated—in fact, it would be inversely correlated—with the asset purchases.

MR. LACKER. It's the general point Woodford made—that when we communicate about anything, we communicate about our views on the economy. And maybe it didn't show up in the dealers' economic forecasts, but certainly market participants could be forgiven for that. Meeting to meeting, our outlook doesn't change when we communicate something. We had the same outlook whether we communicated something or not. So it's natural for us to think, “Well, yes, the interest rate path—it doesn't change if I just communicate.” Well, everyone else is sifting through it for evidence.

CHAIRMAN BERNANKE. Well, they can be forgiven, certainly. And if these two tools were essentially perfectly correlated, then that would be the right inference. But they have different costs and efficacy, so they're not perfectly correlated. Any other questions for Bill?

[No response]

If I could ask your indulgence for just two more minutes. As we've already got a flavor here, the discussion tomorrow will not just be about tomorrow's statement. Governor Duke, you

were never here when policy meetings used to be about that day's policy. [Laughter] So I'm sure there'll be a lot of interest in discussing our strategy going forward, which, in a way, is really what we're supposed to be doing. Following up on what Bill said, I was hoping that, in your policy go-round tomorrow, you would consider three questions, and that you might be willing just to give some indication of your views. They're not lengthy questions. The first one is, could you give a sense of whether or not you're broadly comfortable with the contingent plan for asset purchases that I laid out and others laid out in the intermeeting period—that is, the plan about, assuming the data cooperate, reducing purchases later this year and, assuming data continue to cooperate, reducing in measured steps until 7 percent, et cetera? Are you broadly comfortable with that? And one of the reasons I ask is—of course, we'd like to know the answer to that question—that I think it would be useful for the minutes to have some sense of where the Committee is on that general question. The second question I'd ask you to consider is, assuming you are comfortable with that plan, or even if you're not, do you think that at some point we should try to convey more about that plan in the statement? There are some examples of that in the language in A(4) and C(4) that you have seen just. I don't think we have to decide tomorrow exactly how we would do that, but because the staff will be working on these things, it would be nice to know if there's any interest in doing that at some point. If so, any insight you have into whether or not we should would be useful. And then, finally, the third question is, are you interested—and if so, under what circumstances—in changing or strengthening the forward guidance on rates? President Bullard already made reference to that today. Again, I'm not looking for a detailed analysis necessarily. I just would be interested in your general inclination. It would be a great help to us in thinking about this going forward.

So, are you comfortable with the broad contingent plan for asset purchases? If so, should we, at some point, say something about that in the statement, or should we leave it to the minutes and the press conference as our main communication vehicles? And, finally, do you envision a situation where it might be useful to change the rate guidance, and if so, what's the situation? Of course, the bulk of your discussion will be about your broad policy views and anything else you want to talk about. But I thought it would be useful to have a little bit of commentary on those three issues in particular.

Any other comments or questions? [No response] Okay. We'll recess now, and a reception and dinner are upstairs. We'll start tomorrow morning at 9:00 a.m.

[Meeting recessed]

July 31 Session

CHAIRMAN BERNANKE. Good morning. Could I turn it over to David Wilcox to report on this morning's data?

MR. WILCOX.⁴ Thank you, Mr. Chairman. I think that it would be safe to say that this is one presentation that will not have been over-rehearsed. We obviously have not had the chance to dig through the details of this rather lengthy report. You should have a table, I believe, in front of you that summarizes a couple of the very top-line, headline numbers.

It looks to me like a mixed picture. GDP growth over the first half of this year is unrevised from what we had expected. Economic growth in the first quarter is down 0.6 percentage point relative to BEA's earlier publication, and it came in 0.6 stronger than we had expected in the second quarter. The revisions are across a range of areas. I guess I'd point to two compositional effects that make me a little cautious about the interpretation of this report in terms of its signal for the underlying strength of the economy. One is, on a very cursory inspection, more of the downward revision, especially in the first quarter, looks to have come in final demand. Specifically, PCE contributed 0.3 percentage point less to GDP growth, nonresidential structures contributed 0.5 less, and E&S contributed 0.1 less; inventories contributed 0.4 more. In the second quarter, the big surprise was that federal spending was revised up by enough to contribute 0.6 percentage point more to GDP growth. We don't know what's going on there. I spoke with Glenn Follette, who heads our Fiscal Analysis Section, and he said that the BEA gets additional information about deliveries that can inform its judgment about purchases over and above what it knows from the *Monthly Treasury Statement*. He'll try to find out a bit more what's going on there. But I'd say that cumulatively—again, this is very

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

“first blush”—the sense I have is that maybe the underlying thrust of economic activity is a little weaker despite the fact that first-half growth is exactly what we had expected.

I would say that, looking back, historically, it’s interesting that cumulatively, over the five-year period from 2008 through 2012, the level of real GDP was revised up over that period by 1 percentage point. So the recession now appears, in historical perspective, to have been just a little less deep, and the recovery just slightly faster, than previously shown. Interestingly, GDI was revised up by 1.8 percentage points cumulatively over that period. GDI had already increased faster than GDP over that period, and now that growth gap is a little greater than it was before. In concept, GDP and GDI are measuring exactly the same underlying economic idea. So we’ve been shifting toward taking a bit more signal from GDI than we have historically.

The inflation picture is substantially unrevised. Inflation rates early in the revision period were revised down a couple of tenths of 1 percentage point, and there were some very small upward revisions more recently. Relative to what the BEA has done with inflation in the past, this is pretty modest stuff. These revisions look to have come in the so-called nonmarket components of the PCE price index, where they’re imputing prices. This is a pretty noisy category of inflation.

I think that about summarizes what I know at this highly preliminary stage. Bill Wascher has a brief rendition for you on the ECI.

MR. WASCHER. I can be very brief. The ECI for private-industry workers rose at an annual rate of 2.4 percent in the three months ending in June. That’s exactly what we were expecting. Wages and salaries rose a little bit more than we were expecting, and benefits a little bit less, but I don’t think there’s anything in this report that is of consequence for our inflation projections.

CHAIRMAN BERNANKE. There was an ADP report as well—200,000.

MR. WASCHER. Okay.

CHAIRMAN BERNANKE. Thank you. Any questions for Bill or David? Vice Chairman.

VICE CHAIRMAN DUDLEY. Yes—two questions. First, how much of the first-half revision reflects the new methodology? To really compare “apples to apples,” you have to adjust for the methodological changes, which I understand lifted GDP growth over the last few years by something on the order of 0.2 to 0.3 percentage point. And question 2: Q2 had a big inventory miss relative to the consensus forecast, but I guess I don’t remember what the Tealbook assumption was on inventories. Inventory accumulation rates for Q2 were quite a bit higher than expected. What does that mean for the forecast in Q3?

MR. WILCOX. I don’t think the conceptual change to include a broader range of intangibles had a big effect. Doing an apples-to-oranges comparison of the new equipment and intangibles category with the old equipment and software category, growth in those somewhat noncomparable categories was revised down in the first quarter. The contribution to GDP growth was revised down by 0.1 percentage point in the first quarter and by 0.2 in the second quarter compared with our forecast, so I don’t think that’s a major player. Indeed, as I said, the composition of economic growth looks a little less favorable. Inventory investment contributed 0.4 percentage point more to GDP growth in the first quarter, and 0.5 more to GDP growth in the second quarter, than we had expected. That, combined with the significantly bigger contribution to growth from federal purchases, I think, sets up a little softer tone for the second half than what we’d said earlier. But this is all based on a few minutes of looking at the data.

VICE CHAIRMAN DUDLEY. I understand. We should use the latest available data, though.

MR. WILCOX. Yes.

CHAIRMAN BERNANKE. The staff was telling me that one effect of the changed methodology was to increase the personal saving rate.

MR. WILCOX. Yes. There, the BEA changed the method of accounting for defined-benefit pension plans from a cash basis to an accrual basis. That happened to have the effect of raising personal income over the past several years, and, because spending is whatever spending has been, the higher personal income translates into a higher personal saving rate. Now, this is another area where we have not yet worked through the new information. My guess is that, at the end of the day, we will decide that, despite the substantially higher saving rate, there's an invariance theorem for our outlook for consumer spending. The reason is that, in theory, households have been operating in the environment that they've been perceiving for the past several years, and this is the spending that has resulted. I think there's an interesting behavioral hypothesis test as to whether a cash-based income, which is what the BEA was using before, or an accrual-based income, which is what it's using now, is more informative for personal consumption expenditures. My guess is that we'll decide in the end that the higher level of the personal saving rate probably doesn't have great implication for the thrust of consumer spending going forward.

CHAIRMAN BERNANKE. Any other questions? [No response] Okay. We're about ready to start our monetary policy go-round. If I could do two things—first, remind you from yesterday that it would be helpful for our planning, for the minutes, and for thinking about the rest of the year if you could address the questions I mentioned yesterday regarding the general

strategy for asset purchases and whether or not we should consider putting explicit guidance on asset purchases or enhancing the guidance on rates in our statement going forward. It would be useful to have views on that, although I hasten to add that I'm not looking today to come to decisions or have extensive discussions of the details of those questions, which are many.

Also, before starting, I would like to very briefly give you a sense of a couple of things that we were trying to accomplish with the language that you got, both informed by the communications and the reactions over the intermeeting period. First, one reaction that we got was that markets seem to think that our assessment of the economy was overly optimistic. I thought what I heard yesterday was not particularly optimistic, I thought. In any case, what we want to do, obviously, as we think about our statement for today, is to align the statement with our current views of the economy, and, in particular, I think it is important that we pay appropriate attention to inflation. There was a sense—in some quarters, at least—that we're a little too complacent about low inflation. If in fact we are concerned about low inflation, it would be worthwhile putting that in somehow. So the first objective, I think, is just to align the statement better with our actual views on two key areas: economic growth and inflation. The second objective of some of the language changes was the following: Despite pretty strenuous efforts, at least early in the intermeeting period, the markets had difficulty distinguishing between changes in the plans for asset purchases and potential changes in the plan for rate increases. As you know, we made a substantial effort to try to explain that the two are separate tools and that, in particular, there would be a considerable period between the end of asset purchases and the beginning of rate increases. I think we made progress on that. My personal view is that it would be helpful to reinforce that if we could find a way to do it in the statement. And that, finally, leads to a question that we'll want to address in this go-round, which is, if it is

in fact the case that we are approximately satisfied with current market views of our intentions and our thinking, should we leave the statement essentially unchanged, or should we try to make changes that reinforce and enhance that view? I think, expressing my own view, that it's a little bit puzzling to make no changes, because that seems as though we're not paying attention or that we haven't acknowledged all that's happened in the intermeeting period.

So, I think it would be important for us, first, to think actively about what we can do to better align our own views of the economy with the statement and, second, to the extent that that's what the Committee wants to do, to try to differentiate between the asset purchases and rate policy. Having said that, let me now get ready for the go-round, and I have, first, President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. I will proceed as follows: I'll give brief answers to the three questions you pose, and then, through my statement, provide more detail about the reasons I have answered the questions the way that I have. Your first question asked whether I was broadly comfortable with the asset purchase program that you described in your press conference remarks. With emphasis on the word "broadly," I would say yes. As I indicated at the last meeting, I felt some concerns about it, but it's been announced, and so at this point, I've made myself broadly comfortable with it. The second question was, should we convey more about that in the statement? My answer to that is yes. And the third question is, are you interested in—I think you used the word "strengthening"—the forward guidance on rates? I'm going to change that slightly to say, am I interested in providing more-detailed forward guidance on rates? The answer to that is yes.

Let me turn now to trying to elaborate on those answers. Basically, I'm going to be describing why I like alternative A. I think it will require a press conference to provide

appropriate context for alternative A to the public. So for today, I would favor alternative B. Between the two versions of paragraph 5 in alternative B, I prefer the increased specificity and clarity of 5', and that'll be a theme of my remarks throughout—that we should be aiming for more specificity and more clarity in what we're saying.

Let me turn to alternative A. I described in my previous go-round that there's been an increase in the level of uncertainty about our reaction function. We need to be working to provide more clarity about our reaction function, and I see alternative A as providing that additional clarity. So I very much hope that a version of it will graduate to alternative B status in September. Alternative A proposes new language about the asset purchase program and the fed funds rate guidance, and I'll talk about each of them in turn. In terms of the asset purchase program, I think the words in alternative A do a good job of capturing the policy stance that, at the Committee's behest, the Chairman communicated in his June press conference. I especially like the explicit mention of the 7 percent unemployment rate marker that Governor Stein and others brought forward last time. And I very much like the way that Governor Powell framed this yesterday in his remarks—that we've laid out a road map, and it's just a matter now of carrying through on it. Yes, there are some details about where we're going to stop off along the road, but the endpoint is clearer, I think, as being in the vicinity of 7 percent. There is still uncertainty in the public about the extent to which the 7 percent marker is an official Committee position. The language in alternative A would eliminate this uncertainty, and I would strongly urge the Committee to consider including these words in the statement of this meeting. I worry that our failure to do so will create new uncertainties about the extent to which the 7 percent unemployment rate marker really represents a consensus of the Committee, as opposed to illustrative language the Chairman was offering in his press conference.

In terms of the fed funds rate guidance, right now we have said nothing about what will happen to the fed funds rate once it falls below 6½ percent. Our reticence on this dimension creates uncertainty about the future path of the fed funds rate. As I discussed in the last go-round, this uncertainty translates into higher long-term interest rates and thereby creates an unwelcome drag on economic activity. Alternative A addresses this problem by telling the market and the public that the fed funds rate will in fact stay extraordinarily low as long as the unemployment rate is between 5½ percent and 6½ percent and inflation is under control. This clearer communication will reduce the level of long-term interest rates and increase the effectiveness of policy. But I would communicate this information in a different way than alternative A does. This is on me, in some sense, because I've been talking about this change in communication for some time, and I have used this language—"lower the unemployment rate threshold." I think this is the wrong way to say it. The right way to say this is, we're providing more information about what we're going to do once the unemployment rate falls below 6½ percent. The reason it's important to say it that way is that then you do not get into this issue of, are you going to then move the threshold up at the next meeting or at some point in the future? You're providing more detail only about economic states of the world that you have not communicated about before. So we've said something about what happens when the unemployment rate is above 6½. The fed funds rate stays extraordinarily low. We have not said what we'll do when the unemployment rate is between 5½ and 6½. I think we should, through our statement, communicate that we will keep the fed funds rate extraordinarily low over that set of economic states as well.

Now, the staff memo on forward guidance basically has a description of how to do this. It suggests using what it calls a two-stage approach to guidance. The two-stage guidance retains

the 6½ percent threshold language that's currently in the statement. It then adds an entirely new sentence to describe what happens to the fed funds rate when the unemployment rate is between 5½ percent and 6½ percent. So this two-stage approach makes clear that we're not altering our commitment to our prior threshold at all. We're simply providing new information on our reaction function. In fact, I would even go further than the staff memo. I wouldn't just add a new sentence. Words are free. Let's add a completely new paragraph to the statement about what happens when the unemployment rate is between 5½ percent and 6½ percent. This complete separation would help underscore that we're not altering our prior commitments in any way.

Now, some of the Committee, now or perhaps later, may feel that maintaining a zero interest rate would be inappropriate if the inflation outlook were to rise as high as 2½ percent while the economy closed in on what we believe to be maximum employment. In light of this possibility, it may be worthwhile to modify the inflation threshold, which is now at 2½ percent when the unemployment rate is above 6½, to something lower when the unemployment rate is between 5½ and 6½—say, 2¼. And the staff memo contains some language that might be useful along these lines. I'm not pushing that as an alternative necessarily, but if discomfort with the high level of the inflation threshold is the issue, I think we can fix that problem by adding a different inflation threshold to our second paragraph about what's going to happen when the unemployment rate is between 5½ and 6½.

I'm going to try to talk about some of the remarks Governor Stein made yesterday. They were very deep, and so I don't know if I'm really going to be able to do them justice in what I'm going to say today, but I'll try. I thought this vision of how, in our war against high unemployment and low inflation, we bring along troops from the financial sector—we're

offering them these noble goals of combating high unemployment and low inflation, and we bring along troops that are really interested in one thing: booty. We're trying to bring them along for financial wars, for filthy lucre.

PARTICIPANT. Pirates.

MR. FISHER. Oh, that kind of booty. Thank you.

MR. KOCHERLAKOTA. Yes, I offer that clarification for you, President Fisher. And I think we should welcome their support at this stage. There is an issue that once we get close to the exit, these troops are going to be quick to leave. They're not in it for the goals that we're after. That volatility during exit is inevitable. President Lacker talked about it at the last meeting—that we're going to face that kind of volatility. I think that speaks to offering these troops, these volunteers, as much as we can right now through forward guidance and managing that volatility at a time when the economy is strong enough to deal with it. President Williams's estimate of the cyclical component of labor force participation was 1 percent. That's about 50 basis points above what you would normally think the cyclical component of labor force participation would be. That translates as, the unemployment rate, adjusted for that cyclical component, is really still above 8 percent, something close to 8.3 percent. At this point, we still need all of the help we can get from these other troops. We will face volatility during the exit. There's no doubt about that. The challenge is to manage that process when we get to that point. And the right time to have to manage that is not when the unemployment rate, adjusted as I described, is above 8; it's when the unemployment rate is at 5½.

To summarize, Mr. Chairman, I would recommend that, in September, the FOMC statement include a two-stage forward guidance for the fed funds rate. For the second stage of the forward guidance, you would communicate that, as long as inflation is under control, the

Committee anticipates keeping the fed funds rate low when the unemployment rate is between $5\frac{1}{2}$ and $6\frac{1}{2}$. To enhance credibility, I could see it being desirable to have a lower inflation threshold for the second stage when the unemployment rate is between $5\frac{1}{2}$ and $6\frac{1}{2}$. I have not spoken about an inflation floor. I'm open to that possibility. I didn't want to take longer in my statement than I already have. I view my recommendation as being appropriate regardless of what the Committee decides about the future flow of purchases. The point is that there's considerable public uncertainty about the nature of our reaction function. The recommendations that I've made in this round are designed to reduce that level of uncertainty. And I see that reduction in policy uncertainty as being desirable regardless of what policy choices we choose to make in terms of reducing or increasing the flow of purchases in September. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. Listening carefully to the conversation yesterday, I was worried that we were relitigating what we had agreed to at the previous meeting, and I heard some things that concern me that I want to address quickly before getting to the questions you've asked.

Even though we made adjustments in the statement that Bill and the staff had drafted, there still was an undertone that financial market conditions have tightened somewhat—significantly, if you listen carefully to people around the table—and I'd like to make some counterarguments there. First of all, the stock market is trading at a higher level than it was before. That was mentioned by some at the table. What wasn't mentioned is that triple-C credits are back to trading below 6 percent, and the spreads have narrowed. The triple-C credit market is very active again—in fact, I would argue, much too active. Now, to be sure, intermediate- to

long-term Treasury yields have increased, BAA's are up 70 basis points or so, and emerging market credit is priced cheaper. But they were significantly overpriced—they were very frothy—and one could argue, perhaps, that with the exception of the emerging market debt, they still are.

Now, something that President George said caught my ear, which is, she did a special question in her survey. Only 10 percent of the business operators said they felt that they were somehow impacted by this increase in rates that we have seen, and I suspect that the 10 percent may have been people involved in housing. I'll come back to that in just a second. As I said during my comments, I had more access to CEOs this time, probably because it's summertime; I spoke to over 50 of them. I always speak to one CFO because he's better than his CEO—that is, he has more knowledge of the company. And I asked a specific question: Have interest rate developments impacted the way you budget and plan? The answer was, to a person, no. Even in talking to the housing folks, as Governor Duke referenced, you have to be very careful. Yes, if you talk to the D.R. Hortons and others, the cancellation rates have increased. How much? From 19 percent to 24 percent. It's not extreme. And Betsy was right. The refi activity has actually halved, but we've gone to priced mortgages. It has had an impact, in particular if you look at Ginnie Mae data on low-credit mortgage refi, which has dropped precipitously. But I think we have to be very careful here. Housing affordability is still at historic highs. There is difference by region. It's not as much at historic highs, if you adjust for median income, as it is in the Midwest and the South, including my part of the South, because the East and the West have had some reversals. But, still, housing affordability is quite high. And then, lastly, I think it's important to point out, as was pointed out at the table, that according to the SLOOS, we're seeing bankers a little more liberal with credit, and financial conditions there haven't tightened.

Regarding the first estimate of GDP we just received and got a very good briefing on, you have to remember that it's a first estimate. First estimates are notoriously correctable and have been over time.

And then, lastly, I have a comment about inflation. I always try to think of how this impacts the one variable that we care most about at this table—or at least I care significantly about—which is putting people back to work. This is one of our dual mandates. It's something we have to pay attention to. What really counts here, given that we have a fiscal constraint—even though no one mentioned yesterday that the state and local governments are doing better—is that the big problem is that we have a big foot on the brake because of our federal government, and so we rely on the private sector. One has to think about how managers think in budgeting forward. And whether the inflation rate is 2 percent or 1.1 percent or 0.8 percent, my experience in the private sector—and I'm not a theoretician; I make no claims to be, but I understand the theory—is that it doesn't make a lot of difference. What they want is as much stability as possible so they can budget and plan forward and not be distracted by either significant deflation or significant inflation. I think we need to bear that in mind.

So I wanted to mention those points. Now, last night, I dreamt of Janet—not of Janet personally. I dreamt about your analogy about driving cars. You've been taking us on this journey, Governor Yellen, for two meetings now. We're not driving a car. We're driving a massive, double-wide, extra-wide 18-wheeler that's carrying explosive material and maybe hazardous material. When I hear your wonderful description—and I'm going to kill this analogy now. [Laughter]

MR. TARULLO. I think it's already dead.

MR. FISHER. But this gets to the point of the discussion. You talk about whether we are in Kansas or Cleveland or wherever it may be. You're really talking about what your conditions are. One also has to talk about how you get there. One thing we've dispensed with, I think, in the way we've evolved is, we don't just put our foot on the accelerator and go 60 or whatever the advisable speed is. And the other thing we have to be wary of is that if we go at 30 miles an hour for a while, we don't then suddenly go at 90 miles an hour. We're driving a vehicle that everybody is watching, and when it makes a slight deviation, or at least makes it clear that we're going to maybe move or fishtail or do something differently, we saw what the reaction was. We saw a sharp movement in interest rates based on the Chairman's press conference—as the driver of this gigantic vehicle, the principal navigator of it—and then we saw some correction backward. Just look at the global high-yield markets. Last week, high-yield funds had the second-highest dollar weekly flow on record and the fourth highest in terms of percentage of all net financial assets. So the point is, people are keying off of us, and we determine the traffic flow. I think we have to be very careful what we signal. We also have to be very careful in signaling how we're getting from point A to point B. That's the purpose of this discussion.

Now to the meat of the policy debate. I have argued in these meetings over and over again that the asset purchase program is largely ineffective—that is, ineffective except insofar as it signals a commitment to post-liftoff accommodation. And the theoretical case was laid out by Woodford at last year's Jackson Hole symposium, which I did not attend, but I did read the papers. Also, recent Board simulations confirm that direct, nonsignaling positive effects of additional asset purchases are probably small. The problem with asset purchases is that costs are back-loaded and perversely contingent, and policy tightening is more likely to be inhibited the

more sharply the economy accelerates. I think it's much better to use forward guidance to provide needed accommodation. So, in a way, we're in accordance. The question is, to what degree? The simplest, most powerful form of forward guidance, in my view, makes policy contingent on cumulative inflation and cumulative real growth rather than the latest GDP and inflation reports and what is an estimate and what is not an estimate. And they take a longer view of the economy. I think that's important to bear in mind.

Now, if you go through the statements and the questions you asked, Mr. Chairman, as to the first one, I am "broadly comfortable" with the contingent plan that has been laid out. The word "broadly" could be misinterpreted, as my former interlocutor mentioned. And the second question—should we convey more? Maybe. The third question asks, am I interested in changing the forward guidance in terms of all of the specificity we've outlined? Not sure about that. I think we have to be extremely careful.

I have some problems with the statements as they are now written. For example, paragraph 5 in alternative B—what the heck is "foreseeable future"? None of us are Nostradamus, and, first of all, I don't think we can look out that far anyway or should take that risk. So my bottom line, in looking at the statements here, is, I'd take paragraph 1 from alternative B. Now that we've taken out and changed the language—which Bill was kind enough to do, I think, in reaction or response to the first draft—that now refers only to the mortgage market, I would keep paragraph 2 of alternative B. If I were a voter, I would insist on alternative C. I would take paragraph 3 from alternative C; I'd scale back the asset purchase program. We're not talking about going from \$85 billion to \$10 billion. We're talking about \$5 billion or some small increment. And I honestly don't think it would have that much impact on

the marketplace, particularly now that we've signaled that that's a possibility. I don't think that sells. I don't think we're ready to do it. It's not going to work at this meeting.

I am virtually certain that, given the argument that was held at this table earlier, and with everybody focused on weakness, weakness, weakness—despite your good summary at the end basically saying the music's not as bad as it sounds—the Committee will decide to hold off on changes. So I understand that. And if that's the case, then I would want to suggest that we take paragraph 4 of alternative C—not all of it. To me, it would be sufficient simply to say, “The Committee's decisions regarding asset purchases are not on a preset course and will continue to be contingent on the incoming data.” That's basically what you said, Mr. Chairman, in your press conference, and I don't think we should take out what you said in your press conference. One option that was mentioned yesterday was to leave it unchanged. I would like to add that because it reinforces your credibility in the marketplace.

One last comment. We have to be very careful, having agreed at our last meeting that you would be, at your press conference, the one to explain that, first, should the economy improve along the lines that we expect, we would, indeed, dial back; and, second, the important thing was to differentiate between when we might move on the short-term end of the yield curve as opposed to asset purchases. I think we should reinforce that presently. You said it. We should put it in writing. The way it is expressed here is plenty for me. People may want to add to it. I also think we have to be very careful about constantly changing, and, to me, even in September, it would be far too early to change to a new inflation number or a new unemployment number. We begin to lose credibility in the marketplace. And given that we're driving this gigantic, oversized truck full of hazardous material, we could have an explosive reaction. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. When we began our open-ended purchase program last September, we specifically tied our purchases to a substantial improvement in the labor market outlook. Now, there could be some disagreement among us around the table about how much improvement has taken place, but I think it's unambiguous that a sizable amount of improvement has taken place since September. In recent months—since the last two meetings, essentially—we've been working on the problem of how best to signal the imminent reduction in the pace of purchases and an eventual end to the program, which we know is going to have to come at some point. Our initial communication following the April meeting was unclear and seemed to have added to market uncertainty about the program's future, but I think our communication coming out of the June meeting was much more successful. In your press conference, Mr. Chairman, you clearly described the likely path going forward and emphasized how the path was likely to change if the data don't come in as we expect. Having digested that information, market perceptions about the future of the program appear to have stabilized, and they seem to have come into alignment with the Committee's views, at least the Committee's views as of the June meeting.

At our last meeting, we elected to convey our key message at your press conference. We left it out of the statement out of a concern that we hadn't had enough time to carefully consider the precise language we'd use. This was an unusual approach. The press immediately noticed that and asked about it. At this meeting, I think we need to reaffirm the key message about the future of the asset purchase program that you articulated at your press conference. So I'd argue, consistent with what President Kocherlakota has advocated, that we take the highlighted language from A(4) and use it in this statement at this meeting. We've had six weeks now to

contemplate how to put what the Chairman said in our statement. So I don't think it's credible to claim that the exigencies of last-minute drafting prevent including it. Moreover, concerns about succinctness aren't very convincing, given the extensive forward-guidance verbiage that we've added to the statement over the course of the last year. By my count, our last statement was 70 percent larger than the statement that we issued in January 2012. More important, though, given the close attention to our messaging about the asset program over the last couple of months and the strenuous efforts we've made to clarify our communication, I think that leaving out any reference to tapering at this meeting runs a serious risk of being interpreted as a retraction. It will look as if we're backing away from the statement and the strategy that the Chairman articulated at our behest, with our full agreement, after the June meeting.

The labor market outlook hasn't changed materially since the June meeting. One can always find a couple of statistics that look disappointing in the labor report, but I don't recall anyone yesterday saying that their employment forecast had changed dramatically since June. It's clear from yesterday's discussion that the troubling aspect of the intermeeting data flow was the changing picture for first-half GDP and the implications for the long-awaited pickup in growth. But we explicitly linked the asset purchases to labor market conditions, not output growth, and, as I pointed out yesterday, given employment growth, differences in output growth amount to differences in productivity growth. I think the formulation that you repeated yesterday, and that is in the highlighted language of A(4), had it right, Mr. Chairman: output growth sufficient to generate job growth. If productivity growth is low, you can generate the same job growth with less output growth. This Tealbook is an excellent example of that. First-half employment was revised up a smidgen. Productivity growth was revised down by 1 percentage point, and real GDP growth was revised down by 1 percentage point. Today's

meeting—I think Governor Powell had it right yesterday—is about following through on our commitments. We said asset purchases would depend on the outlook for labor market conditions, and we should stick to it and not add an extraneous condition by implicitly just backing away as a result of weak GDP numbers.

So, on your first question, are we comfortable with the strategy the Chairman laid out? In my opinion, that question shouldn't even be on the table today. We decided on that contingent plan. We explicitly authorized the Chairman to articulate it publicly, and he faithfully did that. Barring a dramatic change in circumstances of the magnitude of, say, 9/11, we shouldn't be contemplating pulling the rug out from under our Chairman at this point. It would seriously undermine the Chairman's credibility, and it would seriously undermine the Committee's credibility. To avoid that risk, I think we need to reiterate our strategy for asset purchases in today's meeting. If, instead, we simply omit any language about reducing the pace of asset purchases and if we don't hold a press conference, which I assume we're not going to do at this late date, there's a decent chance that market participants will be quite confused, and I'd expect some market volatility in response. We spent weeks trying to get our message across. We finally got it right at the June meeting. We finally got something that stabilized expectations and aligned them with our views. In the case of every other element that we've added over the last couple of years by way of forward guidance, we repeat it and reinforce it in subsequent statements and communications. To suddenly drop the only significant new forward guidance introduced this year has the real potential to whipsaw markets. So I would urge the Committee to take the highlighted language from alternative A, paragraph 4, and include it in alternative B. This would represent a natural reaffirmation of the Chairman's communication since the last meeting and would show that our strategy has not changed since then. It would allow us to vary

the path of the purchase program if the labor market outlook evolves in a way that we don't currently anticipate, and I wouldn't view including that language as committing us to tapering in September. I just don't see any advantage in leaving it out, and I see a serious downside risk.

Finally, I'm against adding the phrase "for the foreseeable future" in paragraph 5. I interpret that phrase as synonymous with "the indefinite future," and that's a forward-guidance bridge too far, in some real sense. It's implausible, it's confusing, and I generally don't think we need to provide additional doses of forward guidance. Our forward-guidance machinery is a pretty complicated collection of communication messages at this point, and we seem to change them fairly frequently—hence the growth in our statement. I think we should be really cautious about doing that some more going forward. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Williams.

MR. WILLIAMS. Thank you, Mr. Chairman. I'll start with a concrete discussion around the statement and then turn to your questions.

I support alternative B. And as far as the statement language is concerned, this would be a good time to take a breather and make only marginal changes. In response to President Lacker's comments that if we don't make changes, we might confuse people, I thought through the same process and came to the opposite conclusion, which is interesting on its own. The way I thought about this is, we had a statement last time, whether you talk about paragraph 4 or 5. It wasn't perfect. The Chairman went out and gave his press conference, along with communications by other members of the Committee. I saw all of that as filling in the missing pieces of the statement, explaining what the statement meant. I think we are in a good place today in terms of market expectations. Changing the language would suggest that something's changed from where we are today. So my view is, if you don't change paragraphs 4 and 5, you

basically are keeping expectations where they are as described by the Chairman in his public comments, along with comments of the other members of the Committee. So I come out with the conclusion that changing the language would suggest, “No, wait a minute. You didn’t quite understand what we meant. So let me add something.” But let me just continue on that. Market expectations of future policy appear to be reasonably aligned with our own views. If you look at the primary dealer survey, even though I don’t think that’s the entire market, it is a market that thinks very carefully about Federal Reserve policy. I see the risks as outweighing the benefits in efforts to further refine our message at this meeting. So I actually would argue against using either C(4) or A(4) and would keep paragraph 4 as it is.

Regarding the bracketed options in paragraph 2, it would be useful here to concretely reaffirm our commitment to bringing inflation back to our 2 percent objective, which is how I interpreted the Chairman’s comments on this. To communicate that message as simply as possible, I would modify the second bracketed sentence to read, “The Committee also anticipates that inflation will move back toward its 2 percent objective over the medium term.” That is, I would drop the “appropriate policy accommodation” clause, which already occurs in the paragraph, and the “pay close attention” clause. I view these as redundant, and they potentially could be misinterpreted as a shift in our policy, given the other language in the statement.

Regarding paragraph 5, the additions and rearrangements in either 5 or 5’ do not enhance our message. I think the “foreseeable future” phrase, which has been criticized already for different reasons, is problematic. Now, I have a different take on why they’re problematic. I do see rate increases as in the foreseeable future. Our June SEP projections, which go through 2015, have interest rate increases in them. We foresee raising interest rates in 2015. So I guess I see that as the foreseeable future. I think paragraph 5’ is actually pretty good as it’s written, but

my view is, I would suggest holding off on introducing the language in 5' until we actually start to taper. And that way, by pairing an actual tapering decision, and discussion of that, with paragraph 5', it'll provide a more pointed and powerful reminder that monetary policy will remain highly accommodative even as we adjust our asset purchases. So for today's statement, I propose we simply keep paragraph 5 unchanged from the June statement. What we said in June is completely appropriate today, and the underlying message in this paragraph hasn't changed. It's best, in my view, to leave well enough alone.

In terms of the questions, yes, I'm not only comfortable with, but also fully supportive of, the plan the Chairman laid out at the press conference at the last meeting. So the answer to question 1 is yes. On question 2, I think it would be helpful to try to get that into our statement. So far, I thought the initial attempts to do so, in terms of both a paragraph in earlier drafts of the statement and the A(4) and C(4) language, could actually be confusing; I don't think they're quite there yet. But the staff should continue to try to find a way to explain the contingent plan with clarity. I think having this in the minutes would be helpful. That is an effective approach, but, going forward, if there's a way to come up with a concise, clear way to describe this, I would support it. I just don't think we have that yet. In terms of question 3 and forward guidance on rates, I do share President Lacker's concerns here about changing the language a lot and changing our forward guidance too many times. I think we're actually in a pretty good place. I look at the SEP projections from the Committee on the fed funds rate and compare that with where the primary dealer and other surveys show market expectations of the fed funds rate. I think they're pretty well aligned. In terms of our forward guidance, we actually, are in a good place. I think markets do understand that our forward guidance is a threshold. We saw that in the primary dealer survey—that they don't expect us to raise rates until unemployment is below

6½ percent. So I don't see the need to change the forward guidance, and I do worry a bit about always trying to refine it and change it.

I also just would bring up that the SEP does provide a way for us to communicate our interest rate expectations. The SEP is not perfect. I am a fan of putting the median in there, because I think that would help clarify where the center of at least the participants is in terms of the forward guidance. In the future, we'll be including 2016 in our SEP. So if you really want to provide the public with information that we expect to raise interest rates slowly after liftoff, I think the SEP would show that. It currently shows a very useful piece of information: Even at the end of 2015, the Committee expects rates to be around 1 percent; I think that was the median. Once we add 2016, presumably, if the Committee's view is that we will raise interest rates gradually after liftoff, that would be in the SEP. So I'm not sure if we need to add that or additional language to the statement. I think we could use the SEP more effectively as part of our communication. Thank you.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. President Williams, could I get you to expand a little bit on this last sentence in paragraph 2: "The Committee . . . anticipates that, with appropriate policy accommodation, . . ."? You said you didn't like parts of that sentence.

MR. WILLIAMS. I would have said simply, "The Committee also anticipates that inflation will move back toward its 2 percent objective over the medium term." I think that's stronger than what we currently have that says "at or below," which does suggest to me that we're a little—I don't know about "complacent"—but that we're okay with inflation being below 2 percent. In my view, if we say that we anticipate that inflation will be moving back toward 2 percent, that's a strengthening. I just found that saying "with appropriate policy

accommodation” twice in the same paragraph seemed a little funny, but that’s the only concern I had with that.

MR. EVANS. You’re not really explaining why you’re expecting it to go up, though, in the statement.

MR. WILLIAMS. Well, in the beginning of the paragraph, it says that, with appropriate policy accommodation, we expect inflation to come back.

MR. BULLARD. I would be a little concerned about being nonchalant about inflation. “Don’t worry; it’s going to go back.”

MR. TARULLO. I think that’s the risk of the way you’ve done it, John.

MR. WILLIAMS. Would the “appropriate policy accommodation” deal with that?

MR. EVANS. Could I ask what “appropriate monetary policy accommodation” is meant to convey in this? I meant to ask that yesterday. Does it mean more accommodation than we currently envision? Well, I tried that in my SEP projections, and I had a pretty optimistic path, but the additional policy wasn’t exactly conveyed in that to my satisfaction. But anyway, those are the rules of the game.

CHAIRMAN BERNANKE. I think the concern here is that that could also be read also as a complacent statement—that we think it’s going to be fine, given our current policy path. So one attempt to try to convey at least some doubt was this language at the end about monitoring inflation, which you suggest cutting. Just because we’re not sufficiently confused here at this point, another possibility would be to say something about the risks to inflation; that would be another way to deal with this. But I think this is a question we need to address seriously, because there was some concern about whether we were taking the low inflation sufficiently seriously.

MR. WILLIAMS. And I agree with that. I guess I didn't want to turn the dial so much that it sounded as though we are worried that inflation is going to run below 2 percent. There's that risk of highlighting it so much that people think that's what we expect.

CHAIRMAN BERNANKE. No, that's fair. President Plosser.

MR. PLOSSER. Yes. I'm with John on this a little bit. I do worry that "with appropriate policy" is likely to be interpreted as saying that we're going to act in some additional way that we haven't specified, and it's going to feed into the notion that somehow we are going to take action in the very near future. I think I'd prefer a different way of trying to say that. It's important that we acknowledge inflation is low, and that we commit to our inflation objective. I actually agree with that. But I want to be careful that the language doesn't get interpreted as stating that it's going to either prevent us from moving along with asset purchases or suggesting that we're actually about to do more asset purchases in response to that, because I don't think that's what we want to signal at this point. That's my concern.

CHAIRMAN BERNANKE. To make my suggestion concrete, we have this current statement: "The Committee sees the downside risks to the outlook for the economy and the labor market as having diminished since the fall." We have that now. We could add, comma, "but the risks of persistent low inflation have increased somewhat"—something like that. I'm just putting that out there. I think the best thing to do is to have our go-round, and we can address each of these points in a systematic way and then take straw votes, and so on.

MR. EVANS. Could you just repeat your suggestion?

CHAIRMAN BERNANKE. The suggestion I made was to add to the risks statement "but the risks of persistent low inflation have increased somewhat." We have to find some way

to signal concern. That may not be right, but we will go through each of these things at the end of the go-round. So don't feel as though we have to solve it now.

Anyone else? If not, President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. When I received Book B of the Tealbook, I was interested to note that the language “continuing purchases until the unemployment rate is about 7 percent” appears in alternatives A and C but not in alternative B. It puts me in the rather unusual position of agreeing with Presidents Fisher and Lacker on monetary policy. [Laughter] This new benchmark for quantitative easing was conveyed in the last press conference, but it was not included in the statement last time, in part because of time pressures. I am concerned how markets might interpret the absence of such language in this statement. Some might wonder whether such language is no longer consistent with the Committee's view and, if so, why the Committee's view changed from the last meeting. Such confusion may reduce the effectiveness of our communication.

While entering open-ended QE was quite effective in stimulating the economy last fall, for some of the reasons discussed by Governor Stein and recently amended by President Kocherlakota, some of that efficacy has eroded the more we talk about exit and tapering, perhaps contributing to the perception that we are no longer willing to do what it takes. In effect, it encourages the army looking for booty to switch sides. These somewhat mixed messages risk generating more market volatility than would be desired, potentially adding another drag to the economy.

While I would actually prefer alternative A, I would support alternative B at this meeting. I would have preferred the language in paragraph 4 from alternative A to be adopted for this meeting. However, I believe it should be used in the statement at the next meeting, when the

Chairman will have an opportunity to fully explain the new language in the press conference and subsequent speeches. In terms of paragraph 5, my preference would be to go back to the language from the previous meeting. We should minimize the changes to paragraphs 3, 4, and 5 unless there's a clear message we want to convey. We have a poor track record in forecasting market reactions to new language in the statement. The insertion of language to increase or decrease the pace of purchases, which was interpreted by many in the market as more-accommodative language, was in contrast to our discussion of the potential of tapering, which appeared in the minutes. Thus, I think the Committee should set a high hurdle for language changes from the previous meeting unless we intentionally want to signal a policy change.

Finally, as we prepare for the meetings in the fall, I do think we should clarify at those meetings whether potential tapering is due to the perceived costs of such rapid expansion of the balance sheet or whether the strength of the economy no longer justifies the same degree of accommodation. Currently, the strength in the second half is in our SEP forecasts, but our SEP forecasts are more optimistic than forecasts of many private forecasters, and the strength is not yet clearly evident in the data. If the primary reason for tapering is that we are worried about perceived costs, we should consider using other tools to clearly convey that highly accommodative policy is still justified based on economic forecasts alone. This could be done by lowering the unemployment rate threshold for lifting short-term interest rates to 6 percent, as in alternative A; considering some modest reduction in interest on reserves; or possibly even considering alternative ways that the interest on reserves could be administered, such as changing the policies that only banks that were expanding lending would receive interest on excess reserves. My own view is that tapering in September may be premature. Currently, my view of the economy is somewhat weaker than at the last meeting. The financial conditions are

tighter, and many of those effects have yet to show through. And inflation remains stubbornly low. We will not have seen inflation improvements by the September meeting. We will have only some early indicators of the impact of tighter financial conditions, but it's unlikely that the readings will be clear enough to make a clear call for tapering. Unless incoming data are strong enough that we expect the unemployment rate to fall to 7.2 to 7.3 percent at the end of the year, consistent with the central tendency of the last SEP, we should continue with the current program. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I'd like to start by giving a general observation, and I find myself often, in this go-round, having a lot in common with President Williams. We're in a situation where we have got too many tools. We're adjusting on too many margins, trying to fine-tune our policies. So I agree with President Williams that we just need to take a deep breath, and I think we are in a good place. Markets have adjusted to an expectation that I believe many of us are comfortable with. I think that is fine. And the more we try to tweak different margins, the more confusion, the less clarity, we're going to provide at the end of the day. So that's my overall view at this point.

Let me make some other remarks, in line, Mr. Chairman, with your questions. Do I broadly agree with the strategy you laid out in the press conference? In a broad sense, the answer is yes. I'm happy with that. My only caution with that is, I am a bit uncomfortable with the use of the 7 percent guidepost, if you will. I'm a little worried that it will be just setting yet another threshold that's going to add more confusion and more interpretation. Are we going to live by it? Are we not going to live by it? I actually happen to think that we could get to a 7 percent unemployment rate by December of this year or January. If we say this in the statement

or we amplify this commitment, I don't believe this Committee would be prepared to actually end purchases by then. So then we're going to be continuing on with purchases if we don't act at that point, and we're going to be getting closer and closer to the 6½ percent threshold. And then we're going to be uncomfortable with that one because there's not enough time in between. I just think it sets up a potential for us renegeing on commitments that we apparently have made. So, like President Williams, I am broadly supportive of that, but I believe we have to be very careful about how we word the reference to the 7 percent. I think we need to do some more work on that. I would be very happy, as President Williams suggested, to use more words and describe support for that strategy in the minutes at this point. But I'm a little bit nervous about trying to get it exactly right in the statement because of what might ensue from that and what position we might find ourselves in later. So while I'm broadly consistent with the strategy, I'm worried about the communications and how we work around the 7 percent issue. And in general, I just don't think more tools and more guideposts provide a lot more clarity.

For the asset purchases, I've argued for a long time that I don't think their benefits are very great. The staff still believes that a \$500 billion program makes the difference of 0.2 percentage point on the unemployment rate in two to three years. That is not a very big number. The staff added \$500 billion to the program compared with last time. That effect was swamped by just the revision in their forecast. So its benefits are almost noise, as far as I'm concerned. Moreover, the staff's estimate of its effect on inflation was less than 0.1 percentage point. I don't see asset purchases as contributing very much to either solving the low-inflation problem or solving the unemployment problem. There's just too much noise and too many other things going on in both of those things, and so I would prefer us to get out. To tie our exit to an

unemployment rate that is itself very noisy and isn't directly determined by the asset purchases is troubling to me.

On the other hand, we could face the situation where the unemployment rate gets stuck at 7.1 percent for a year or two. Are we happy continuing purchases for another year or two simply because of that, even though the purchases themselves may not be helping very much? I love state-dependent policies, but I'm nervous about tying a policy to a variable for which it doesn't have many consequences. So I would prefer to say something in the minutes about this but be careful about how we judge the 7 percent rule. In saying this, I think I answered the second question in the process. That's the way I would communicate, and I would not communicate it in the statement at this point. Presumably, if we start to taper in September, when we make the decision, that might be the more opportune time and give us more time to get it right.

Let me talk about other forward guidance. Again, following my theme of simplicity, I don't think we ought to be messing with the forward guidance at this point. It's gotten us to a good place, for better or for worse. I actually am concerned, and, in fact, here I have some sympathy with President Kocherlakota. The problem with our forward guidance is that we have a model, FRB/US, that we're taking guidance from about the effects of our forward guidance. Yet in FRB/US, we get those results because we have a rule that's well known. The 6½ percent is a trigger; it's not a threshold. And we're fully credible in the commitment that we're going to live up to that trigger and follow a rule afterward. Our policy actions at this point don't fit that bill. We're not following, and so we should not be surprised if we don't get the exact results that FRB/US suggests that we might. From that standpoint, I agree with President Kocherlakota in the following sense. If we want to think about changing our forward guidance, and we want to think hard about that, I wouldn't mess with the 6½ percent. I would do as he suggested, and

begin thinking about how we describe policy after we get to 6½ percent. There were some simulations in the staff memo about that, which I found very interesting. There are some challenges about how you describe that policy. I would not, as President Kocherlakota suggested, have another unemployment interval under which you describe policy. I don't think that would be the right way to go. But I think we need to look for ways to describe what sort of rule or behavior we would use when we got there. I wouldn't make it a trigger. Look, if inflation was still 1 percent, and we were at 6½ percent, we still may not move, but we would switch to some more-articulate reaction function and get us away from zero. I am worried about staying at zero for too long. President Kocherlakota and President Bullard talked couple of years ago about the dangers of our finding ourselves in a bad equilibrium where the only equilibrium with interest rates at zero is a deflationary equilibrium. The longer we stay at that zero, the bigger chance I think we have. I don't think that's the likely opportunity, but I am worried about that potential outcome.

So my general view about this is, let's make as few changes as we can. I'd prefer to see alternative B. I like President Williams's suggestion to try to simplify that last sentence in paragraph 2, for the reason that I don't want the markets to walk away from it thinking that it means action is imminent or that we will not begin unwinding purchases, because, as the data show and the staff shows, purchases aren't having much impact on inflation, certainly in the near term. I think we have ample ability to create inflation as we unwind from the balance sheet, and that's really what it's all about. So I would try to simplify paragraph 2. I do not like "foreseeable future." I think we've tried "extended period," we've tried "considerable time," and we've tried dates. All that's going to happen is, the market is going to say, "Well, what does that mean? Give me something." I just don't think it's very helpful at this point. We should stick

with what we have. On 5' versus old 5, I'm happy with old 5 at this point, and then we can modify some of this stuff when we actually begin to taper. It might be a better approach to do that.

Finally, just one last point, Mr. Chairman, about the 6½ percent. There's a lot of discussion about getting to 6½ percent, and not being happy about the participation rate or the employment-to-population ratio or U-6 or temporary workers or something. I think we're just moving the goalposts on ourselves. We can't keep adding real gaps to our reaction function ad infinitum. If we were worried about the participation rate or the employment-to-population ratio, we don't have very good models of either one of those. And for us to try to set policy based on some gap between a model—we have a hard enough time defining output gaps and unemployment gaps without defining participation rate gaps and employment-to-population rate gaps—is just a dead-end strategy leading to both confusion and lack of clarity. So I would urge us to think the 6½ percent is more of a trigger, make fewer qualifications, and describe a reaction function after that that is consistent and credible. That's my suggestion, Mr. Chairman. Thank you.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I'm going to try to answer the three questions in order. The first question was, am I broadly comfortable with the basic plan that was announced at the press conference? I'm not comfortable with the plan, so let me just outline some of my thoughts on this. I think that by hinting at an end date of mid-2014, the plan suggested some non-state-contingent policy. In other words, the Committee has hinted that it wants to end the program independently of macroeconomic performance. The Chairman and most members have walked back this idea during intermeeting communications, but it is still

having an important influence on the perception of the future of QE. As Vice Chairman Dudley suggested yesterday, the state contingency still exists but has been altered to the idea that the Committee will reduce the pace of purchases unless the data come in dramatically different from expectations. That standard—that the burden of proof is on the data being dramatically different from expectations—is much closer to a non-state-contingent policy in which the asset purchases are simply reduced without too much regard for economic developments.

I continue to think that asset purchases are the most potent tool we have while the policy rate remains near the zero lower bound. We need to be very careful that we do not eschew the use of this tool for reasons other than strong macroeconomic performance of the U.S. economy. If we swear off QE, then we will be left with only forward guidance as a policy tool. I have argued that forward guidance is problematic as a policy tool. In particular, it is very difficult to get the right type of commitment in place without signaling the expectation of very poor macroeconomic performance into the distant future. I would describe it this way. Expectations games are a tricky business, and I would read Woodford's paper from Jackson Hole as giving about 30 pages of examples of how difficult it is to get the communication exactly right in order to get the effects that are supposed to occur in the theoretical model. Just extending this a little bit, a lot of people have wondered about the efficacy of asset purchases. So have asset purchases been effective over the past year? I think they absolutely have. The effect that we witnessed with QE2—that investors tended to move toward higher-return, riskier assets—occurred in spades over the last year, as it did with QE2. The resulting higher wealth of households will likely have an important impact on macroeconomic performance going forward. One additional effect of QE2 was to drive both core and headline inflation higher, partly because of a global commodity price boom that took place during the fall of 2010 and the first half of 2011. By the

end of 2011, core PCE inflation was back near 2 percent, measured on a year-over-year basis. I interpret the global commodity price boom as a manifestation of higher inflation expectations that were engendered by QE2. During the past year, however, we have not seen a similar global commodity price boom, and one consequence is that core and headline inflation are running at exceptionally low levels. The reason for the differing inflation dynamics as compared with QE2 is very clear. There is no global commodity price boom this time because Europe, the world's largest economy, has relapsed into recession. My interpretation is that this Committee has been handed the opportunity to run a more aggressive asset purchase program than would otherwise have been possible, and we should take that opportunity. Of course, much has been made of the size of the Fed's balance sheet, but I have not found those arguments compelling so far. I think we would be better off simply getting used to operating with a larger balance sheet. The size of the balance sheet relative to GDP is not as large as it is for the other major central banks.

On the second question—should we convey more about the plan in the statement?—I suggest not. I think enough has been said, and we would probably do more harm than good by trying to codify it further. I would allow much of the communication to occur through the minutes and speeches. In particular, I think codifying a 7 percent unemployment threshold for zero purchases has a lot of problems. And here I would agree with President Plosser. Suppose unemployment rises from its current level—perhaps because people who are on the sidelines are enticed to reenter the labor market as the economy improves, which has been an argument that's been popular around here over the last year or two. If that takes hold and unemployment actually rises as you get improving economic performance, is the Committee really willing, then, to continue with asset purchases at the present pace? I'm not sure what would happen. I'm not sure where the Committee would come down in that circumstance. On the other hand, if, as

President Plosser points out in his own forecast, and as I do in mine, unemployment continues to fall and reaches 7 percent relatively rapidly, is the Committee really willing to pull back in an abrupt fashion on the pace of asset purchases? I'm not sure we're ready to do that, either, and so I'd be reluctant to codify the 7 percent unemployment target for a zero-purchase scenario. I guess that's a way of saying that the uncertainty around the timing of the point that we would hit 7 percent is questionable and really might upset deliberations here at the Committee or differ a lot from what people are thinking, even if the "on average" or median point at which we're expected to hit 7 percent is in conformity with what most people are thinking.

The third question was, should we consider strengthening or changing forward guidance? Yes. As I argued yesterday, I think that it would be useful to have a lower level of inflation, a 1.5 percent threshold on inflation, and that we would promise not to raise rates in the situation where inflation was below that threshold, or expected to remain below that threshold over some reasonable horizon, regardless of what else is going on with respect to the other thresholds. That would strengthen our commitment to defending our inflation target from the low side. It would be symmetric with the 2.5 percent threshold that we have on inflation. It would not be moving a threshold. I agree with President Kocherlakota's earlier comments that we probably don't want to be in the game of moving thresholds because that reduces the credibility of these markers. But it would be adding one and clarifying that we are concerned about this issue and that we want to keep inflation close to target.

I'm intrigued by President Kocherlakota's arguments that what we should be doing is providing additional clarity on what we would do after the 6½ percent unemployment threshold is reached. And I think that's an issue worth exploring further. I wouldn't be willing to endorse it at this point. I am sympathetic to some of the other arguments that have been made here about

how there may be too many dials, and how this may be getting too complicated. But I do think that President Kocherlakota has the right idea—that if you’re going to do something, you want to not move a threshold but provide additional clarity. That’s exactly the right concept.

As I said yesterday, I think it’s critical, and I think it’s the future of this Committee, that we will have press conferences with all meetings. It affects the deliberations. It affects what people are willing to say. People are saying, “Don’t do it today,” even though they really think you should do it today. “You want to wait for the next meeting.” It piles a lot onto one meeting. It would help us a lot to be able to do some things at one meeting and wait for other things. I think it’s disturbing the dynamics of the discussion here. I would like every meeting to be ex ante identical.

I agree with President Williams’s judgment that, for today, we shouldn’t make a lot of changes. I think we probably are in a good place, despite some rigmarole to get there. But, after the press conference and a lot of communication after that, I believe we actually are in a good place today, and I wouldn’t make a lot of changes. So I am willing to support alternative B for today, on the notion that we would basically be doing a “wait and see” on the data, especially as to whether the economy improves in the second half of the year as we hope. And it’s hoped that we’ll get some good information on that and we’ll be in good shape as we go forward. But we just don’t know at this point, and so I don’t think we can do a lot here. I agree with Presidents Lacker, Fisher, Plosser—perhaps I’m missing others—I, too, am not too keen on the “foreseeable future” language in paragraph 5. I see that as probably something that’s hard to manage going forward. We have had trouble with language like that in the past. I also agree with President Williams—we are doing other things that suggest that there is a “foreseeable future” that’s out there for several years. So I know what we’re trying to do there, which is to

convey that policy is going to be very easy, the balance sheet is going to be large, and the policy rate is going to be near zero for a long time. But that may not be the best way to do it.

And, finally, on inflation language in paragraph 2, I like the last sentence in paragraph 2 in alternative B. I like it as it is. I'd be willing to consider some modification, but I do think it's important that we send some signal that, yes, we do care about the low inflation readings, and that, in particular, if they start to go even lower than where they are today, we'd be very concerned about that. I think some language like this has to be included. And to take too much out of there might make it seem as though we're just complacent on this issue and we're not too worried about it. So I think that's important. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. I think the "foreseeable future" may be considered dead by acclamation. It's wonderful to see the Committee in agreement. [Laughter] President Pianalto.

MR. PLOSSER. Seize on it when you can, right?

CHARIMAN BERNANKE. I take what I can get.

MS. PIANALTO. Thank you, Mr. Chairman. I'll start with some comments regarding today's decision. As I indicated yesterday, the incoming data have continued to suggest to me that we've seen substantial improvement in labor market conditions and in the outlook for the labor market since we launched the asset purchase program last September. The Tealbook's forecast of private payroll gains in 2013 has risen by about 50,000 jobs per month since last September, and, as of our last meeting, the central tendency of the SEP forecast of the unemployment rate is about ½ percentage point lower than it was last September. In light of this progress in the labor market, and as long as the incoming data support a forecast of PCE inflation gradually rising toward our 2 percent objective, I continue to believe that it will be appropriate to

slow the pace of asset purchases sometime soon. While I think the progress of labor markets has been sufficient to warrant slowing our purchases now, I know that such a move would surprise markets, so I support waiting until the September meeting to take action. The September timing would be consistent with market expectations that our communications have established, and waiting until September will also give us some additional data. We will get data on the July and August labor markets and more data on the trend PCE inflation.

Under these circumstances, I support alternative B. The latest Survey of Primary Dealers and the Blue Chip financial forecasts indicate that respondents expect a statement largely similar to the one we issued in June, and they expect some slowing in purchases in September. So I would prefer a version of the statement that introduces relatively few changes at this time. Minimizing the changes would reduce the chances that we cause a shift in expectations of market participants regarding the likely timing of a reduction in asset purchases. And as we discussed earlier and yesterday, we're just not certain how markets are going to react to wording changes. Around this table, we have different interpretations of the wording changes, and, as President Rosengren pointed out earlier, our experience with predicting how markets are going to react to wording changes has not been great. So, accordingly, I would prefer that we use the same language from our last statement in the last sentence of paragraph 2 in alternative B and paragraph 5 in alternative B.

Turning to the broader strategy questions that you raised yesterday, Mr. Chairman, first, consistent with my view that we should start to slow purchases sometime soon, I am comfortable with the broader plan of beginning to slow purchases sometime later this year—my preference would be at our next meeting—and then taking measured steps to gradually slow and eventually stop purchases when the unemployment rate is about 7 percent. So I am comfortable with the

plan that you've laid out. Responding to your second question, once we have agreement on a plan, I would support conveying the plan in our statement. I think that kind of communication is important to our credibility and to the transparency of policy, and it will also help, obviously, to stabilize market expectations as best we can. In responding to your third question, as long as the path of economic activity and inflation evolves more or less as we currently expect, I would not support changing the forward guidance on short-term interest rates, for a few reasons. One is that I don't believe additional easing of policy would be warranted, given our current outlook. Second, I think it would be difficult to credibly commit to guidance for a period any longer than we already have. Given that our current guidance has already raised questions about whether we are tying the hands of future Committees, I think going out any further or giving any further guidance would be challenging. And then, finally, changing our current guidance, as others have already commented, could raise questions about our willingness to stick to any guidance, and therefore raise some questions about our credibility. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I support alternative B today. I'll comment first on the statement and then offer a few thoughts on communication strategy.

In my view, the Chairman's press conference after the last meeting, the Chairman's congressional testimony, and our collective communications have been effective in clarifying the Committee's asset purchase policy framework. Both internally and publicly, we're positioned for decisions to step down over the next several meetings and, ultimately, phase out the LSAP program without having provided a detailed road map. That's where we are today. I think that recent communications have accomplished enough for now, so I accept the case for a minimalist approach to the statement coming out of this meeting. That said, I can support the language of

B(5') because it explicitly reaffirms and reinforces messages recently and already communicated that I think need reinforcement. It doesn't introduce new information. I think the description in paragraph 5' of what is a highly accommodative stance for monetary policy does reflect the Committee's consensus. Those are my comments on the statement.

Looking ahead to answer the first question posed by the Chairman yesterday, I am comfortable with the contingent plan for adjusting the asset purchase program discussed at the last meeting. I think an initial adjustment in the pace of asset purchases could be justified in September if the next two employment reports follow the recent trend and a disinflationary pattern does not reemerge in the inflation data. I hope the data cooperate and this is the way things play out, but I believe we have to contemplate a situation in which incoming data and economic conditions, along with the outlook that they support, do not alone justify reductions in asset purchases. And I'll comment a little bit more in a moment on that thought.

The Committee and the Chairman have—for valid reasons, I think—positioned the stopping criteria as purely grounded in economic conditionality. I'm concerned that the Committee could, in the future, face a quandary at later decision points, and that quandary is that the Committee, on balance, wants to proceed with the phaseout of the LSAP, but it cannot clearly or without qualification claim economic justification based on recent data and the updated outlook. I fear a form of persistent ambiguity. The comments of Governor Tarullo yesterday—he made the point that conditions may not clarify—are similar to my ongoing concern. So I think we would be well advised to think about options—a sort of decision tree—if the data don't cooperate and deliver a completely compelling case one way or the other. I understand that pressing on with the current pace of asset purchases is an option and may be the only option if employment gains slow materially or the inflation picture deteriorates. But if

incoming data are mixed, the situation is ambiguous, and the Committee is, on balance, inclined to wind down the program, we may have to evolve the message about stopping criteria while maintaining or even strengthening the level of policy accommodation. There seems to be no appetite for that in the Committee at this point, but, to develop the thought a little further, I think there is a good case to be made that we have seen considerable progress accomplished since the launch of the LSAP in September 2012. I also think that a case can be made for the relative efficacy of extending or modifying forward guidance versus continuing purchases if we view the economy as requiring additional support. This positioning would, in effect, say that quantitative easing is useful and is having some effect, but we have multiple tools to use tactically, and the question is, what combination is best in the context of evolving economic conditions? I appreciated the memo “Some Possible Adjustments to the Committee’s Forward Guidance for the Federal Funds Rate,” and I thank the staff members for their thinking on this subject. I don’t think the quantification of welfare gain has to be accepted as definitive to see the potential usefulness of a spectrum of forward-guidance options that could serve to preserve or even increase accommodation if and as the LSAP is phased out. So, to sum up, I lean toward continuing on with the plan for winding down our asset purchase program that was suggested by the Chairman at the last meeting. If the data continue to present a mixed picture—and I fear that they will—I prefer a bias toward moving toward the wind-down and a move in the direction of strengthening our forward guidance if more policy accommodation is called for.

On the three questions posed by the Chairman, I’m comfortable with the basic wind-down plan, as I’ve already suggested. As I understand it, that would involve starting in September, perhaps more later in the year, with a conclusion by midyear. I have to say that I’m a little confused about whether we’re talking about highlighted A(4), which includes a 7 percent

marker as part of this contingent plan, or whether we're excluding that notion. I distinguish between the two. The basic plan, as I just laid out—September, later this year, and midyear—I'm comfortable with. I'm not so comfortable with elevating the 7 percent to something closer to being a threshold, as opposed to a coincident marker that would accompany what we think is the basic plan and the basic rollout of the economic conditions. Also, I'm not comfortable with putting a very explicit, road-map-like plan out there quite yet. I prefer laying out an explicit road map when there is more-tangible evidence that the economy is on the desired track. We could do that after the first move—which may be in September, in my mind—or later in the fall. When the Committee is ready to embrace a timetable and a step-down plan, then I favor putting it in the statement. I think the statement is the strongest of our communication tools; it speaks for the Committee. And I would suggest that there could be awkwardness in the fall, around succession and so forth, which would make the Committee speaking all the more important. On changing or strengthening forward guidance on the fed funds rate target, I've already said that I welcome this broad concept as a complement to our tool bag, although we might strengthen guidance in some way early on to counter accommodation that has been lost with the introduction of the tapering idea. We could do that. I actually favor, on balance, holding this tool in reserve to potentially add stimulus as needed as the wind-down in quantitative easing is in progress. Those are my thoughts. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President George.

MS. GEORGE. Thank you, Mr. Chairman. I've incorporated my answers to each of the questions in my statement.

Over the course of this year, I've expressed my concerns about the open-ended approach to our asset purchases and aggressive monetary stimulus. With ongoing improvement in labor

market conditions, along with the potential costs and uncertain benefits of LSAPs, I would like to see the Committee include in this statement a more explicit signal that the pace of asset purchases will be reduced this year, as early as September. The stated goal of the open-ended program was to promote a substantial improvement in the outlook for the labor market in the context of price stability, not to achieve maximum employment. I believe our projections point to such an outlook. As President Pianaalto noted, the Summary of Economic Projections from last September shows that the unemployment rate was expected to be about $7\frac{3}{4}$ percent in the fourth quarter of this year. The most recent set of projections now foresees an unemployment rate of about $7\frac{1}{4}$ percent—that is, $\frac{1}{2}$ percentage point lower than last September. In terms of employment gains, the Survey of Professional Forecasters last September anticipated net employment gains of about 150,000 per month four quarters ahead, and their most recent survey now anticipates about 185,000 per month four quarters ahead.

Following the June meeting, the press conference provided a road map for the future of asset purchases. In my view, the data have been sufficiently positive to continue with this plan. Given this backdrop, and as the primary dealer survey indicates, market participants now expect a reduction in the pace of purchases in September. Deviating from the direction laid out at the press conference could potentially confuse markets regarding our reaction function and result in another bout of asset price volatility. Alternative B as written does not provide a clear statement of intention about asset purchases that would be consistent with the communication since the last meeting. A clear statement is important, in my view, because it would acknowledge that the economy has continued to heal and is sufficiently stronger to warrant small steps toward normalization. My preferred approach would recognize in a prudent manner that we do intend to remain highly accommodative even as we begin to retire our use of this unconventional policy

instrument. I would support including language in this statement along the lines of an earlier draft of the policy options that says, in a more general way, “The Committee anticipates moderating the pace of its security purchases later this year, contingent on the outlook.”

In terms of forward guidance, I question whether adjusting the existing threshold is appropriate. The use of this unconventional tool is not yet well understood in practice. Changing it poses risks to our credibility and potentially to the stability of longer-term inflation expectations. In addition, announcing a lower threshold will likely require, as shown in the Board staff’s memo, a rather rapid rise in rates once liftoff begins. I would be concerned that, after such an extended period of near-zero rates, moving rates up quickly could be destabilizing for financial markets and pose risks to financial stability and sustainable economic growth. Instead of adjusting thresholds, I would prefer to signal that increases in the fed funds rate after liftoff are likely to be gradual as we assess the economy’s response. And I would agree with President Williams that the SEP gives us a vehicle to do so.

I do feel compelled to make one comment about Governor Yellen’s cross-country trip, and that is to thank her for making us stop in Kansas City. I am quite familiar with that long slog across Kansas, although I can tell you that it beats taking the Yellow Brick Road. [Laughter]

Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I’d almost forgotten that I also had a comment on Governor Yellen’s trip.

MS. YELLEN. Uh-oh. [Laughter]

MR. EVANS. I would say that, on this trip, we've detoured off of I-80, and we're now on a gravel road. [Laughter] We need a big, powerful, Texas-style pickup truck with big tread tires and not just a meager Chevy Vega with bare tires, like I used to have in the 1970s.

All right. Thank you, Mr. Chairman. Today I have a lot of sympathy for the language in alternative A. Given our June actions, I believe that we will soon need explicit guidance on the terminal conditions for our QE3 purchase program.

Let me first state my ideal, preferred policy direction. I remain far from convinced that the economy is safely on its way to a substantial economic growth trajectory that achieves escape velocity within the next two to four quarters. I remain less optimistic that downside risks will be avoided. I think in this morning's GDP release—although I certainly don't understand the nuances there—it seems as though the first half is weak. That causes some of these risk concerns, and we still have a puzzlingly low trajectory for inflation. I shared President Bullard's concerns at our last meeting about the need to better defend our inflation objective from below. I just wasn't as vocal. My preferred policy action is to continue blasting away with \$85 billion of asset purchases until sustainable improvement in our economic growth and labor market outlook is undeniable. I would back these continued purchases with communications that indicated that the next confident confirmation of those satisfactory economic conditions would most likely be early in 2014. I just don't see how we will have a clear picture before early 2014 that economic growth is progressing along the lines in our forecast and that the recent low readings on inflation are indeed transitory. Conceptually, I think the terminal condition for QE3 should be that the data on economic growth are exhibiting escape velocity. And in terms of the ultimate size of the program, I don't see a meaningful risk in waiting a few more months to reduce the flow purchase rate.

However, our June meeting discussion and subsequent public communications have clearly taken this aggressive policy accommodation off the table. For such significant policy developments as our June press conference announcements, there is strong value in maintaining policy continuity for promoting communications and policy credibility. I accept that reality. Accordingly, the hurdle rate for deviating from the most recent Committee directions should be high. As long as our next policy decision path does not lead to further unwelcome financial restrictiveness, my hurdle for deviating from the most recent Committee approach is high. To borrow some of President Kocherlakota's phraseology from our June meeting, we've embarked upon a first step toward alt-C policy action. So unless I see a marked deterioration in the outlook for output, labor, or inflation, I guess I need to make the best of it. If early-fall meetings have become such strong focal points that we feel we must move sooner than my ideal path, then I definitely favor a small first step. Reducing the purchase rate to about \$70 billion seems right to me, but that's a future discussion.

Given this starting point, I'm a strong advocate of providing more specificity regarding our state-contingent plans for the open-ended asset purchases and defending our commitment to our threshold forward guidance for the funds rate. Regarding our asset purchases, I find myself in greater agreement with what I would have characterized as the Rosengren, Stein, and, now, Powell proposal that we provide a firmer terminal condition for the program—namely, a 7 percent unemployment rate. In terms of your questions explicitly, I'm broadly comfortable with the contingent plan, and I'm also comfortable with putting it in the statement, along the lines of language like I see in alt-A, as soon as that's feasible. Reaching 7 percent unemployment would represent a substantial improvement in labor markets from our September 2012 starting point and so, by that criteria, would justify ending the program. I expect that this

will be accompanied by GDP growth of over 3 percent in the first half of next year. I think that signals pretty good escape velocity. I also expect that the inflation outlook will be moving off its lows and moving back up toward target, even if it's slow. Greater specificity also requires going beyond stating expected terminal economic conditions. It includes, in my opinion, giving more color on the progressive steps for reducing the flow pace of purchases. As soon as seems reasonable to provide more information, I would favor indicating that we will reduce the flow rates roughly in line with reductions in the unemployment rate, whether those meaningful reductions occur on press conference dates or not. I don't see why, if we're making progress and everybody understands our plans, we can't just do it—not have a press conference. We took a lot of actions in the past without press conferences. I think that would be okay.

But our communication strategy needs even more. We think the first-order effects of the LSAP programs are determined by what market expectations are for their ultimate size, and not so much by the exact monthly pattern of purchases that gets us there. So we should be willing to state explicitly a reasonable expectation for how large this program is likely to be, given our expectations for economic activity and inflation. This would be a forecast, and it's not an unconditional commitment. It would be a forecast, so it's still valid within our state-contingent policy framework. And such a forecast could find its way into the FOMC statement—unlikely—be mentioned at a press conference, or appear in a speech by the Chairman. The words could be something like this: “If events unfolded as the—in this case, June—SEP central tendency envisions, the total size of our asset purchases since January 2012 would likely be at least as large as \$1¼ trillion at its conclusion.” We could also state that the most likely reason for a smaller-sized program would be that employment, GDP, and the unemployment rate exceed our SEP assessment. In fact, President Plosser again mentioned—he said it in June—that his

expectation is that the unemployment rate could hit 7 percent by the end of the year. That would be the terminal condition. I hope so, and, yes, I would fully support ending the program at that time under those victorious terms.

Let me finish with a few thoughts on forward guidance, which is your third question. Reducing the threshold to 6 percent, in my opinion, is an acceptable strategy. President Kocherlakota described it exceptionally well—that what we need to do is to start describing our behavior when the unemployment rate goes below 6½ percent. There’s very good scope for doing that, which would provide additional, explicit clarity. We have our inflation safeguard, which should be enough to stave off any exuberance worries if in fact that was a lot of accommodation. But I’m okay with staying at 6½ percent as our threshold when we repeatedly reinforce that our policy is a threshold. And I thought you did an exceptionally good job in Boston at the NBER Summer Institute conference in the question-and-answer. I think we need to continually fight against perceptions that we might be exhibiting trigger activity. Once our purchase program ends, all eyes are going to be on forward guidance. We’ll have their attention, and I think we can sell that idea pretty well, especially when the Chairman is out there repeating it—and somewhat loudly.

In terms of nettlesome details today, I understand that alt-B or some version of it is likely to be the preference, and I’m okay with that. I would support language about our terminal conditions as expressed in alt-A(4), and others have mentioned that as well. On the inflation risks in paragraph 2, I’m actually attracted to the language in paragraph 2 in alt-A. Nobody has mentioned that, so I doubt that that’s a likely option. But that language is, “The Committee recognizes that the persistence of very low inflation could pose risks to economic performance, but it anticipates that, with appropriate policy accommodation, inflation will move up” to 2

percent. I think that captures what we're trying to do. Mr. Chairman, as I understood your suggestion for B(2), that would also be acceptable to me: to mention that "the risks of persistent low inflation"—I would say "remain." You wouldn't have to necessarily say they've increased, but just to mention that "the risks of persistent low inflation remain"—that would be an addition to the statement that could get attention there. You mentioned yourself that "foreseeable future" really isn't a live option anymore, and I'm okay with paragraph 5'. I think I answered all of the questions. Thank you.

CHAIRMAN BERNANKE. Thank you. This might be a good time for coffee. We'll start again at 11:10 a.m.

[Coffee break]

CHAIRMAN BERNANKE. Okay. Why don't we recommence, and I'll start with Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I support alternative B. I'd like to make a couple of comments on the statement, and then I'll turn to the questions. I consider it appropriate to make only modest changes to our statement at this meeting. The changes to paragraphs 1 and 2 in alternative B acknowledge that economic growth has been below our expectations as of the June meeting. In conjunction with the Chairman's communications since our last meeting, I hope this will be interpreted as indicating that a reduction in the pace of asset purchases at the September meeting is not baked in the cake but is instead contingent on evidence that improves our confidence that growth will indeed pick up and that inflation is moving back toward our 2 percent objective. Since the outset of the purchase program, we've emphasized economic conditionality as its central feature. So it would be both inconsistent and damaging for us to now leave the impression that a decision to reduce the pace of purchases at

the September meeting is locked in, regardless of incoming data. I think it's appropriate to replace the final sentence in paragraph 2 with either the proposed new version or some variant of it that we can discuss. Increased uncertainty about our policy intentions may partly reflect our apparent lack of concern about an undershooting of our inflation objective. In light of the uncertainty surrounding the outlook for inflation, we should be as clear as possible that we intend to defend our inflation objective from below.

Of the two versions of paragraph 5, I think it will come as no surprise that I prefer 5' to 5. Thanks in large measure to the work the Chairman has done during the intermeeting period, I don't think market expectations about the conditions prevailing at the time of liftoff have changed in any alarming way. But it's worthwhile for our statement to emphasize that, even after our asset purchases wind down, it will still be a considerable time before we begin to remove policy accommodation, and that the forward guidance pertains to a completely separate decision. Others have talked about what's wrong with "foreseeable future." I won't repeat all of that, but I think 5' reaffirms and highlights what we've been saying all along, and usefully emphasizes that the highly accommodative stance of policy includes not only very low short-term rates, but also ongoing, substantial holdings of longer-term securities. Sometimes it seems to me that market participants ignore this, instead fixing on the pace of purchases. I would hope that market participants would interpret this reaffirmation as our attempt to lean against the view that a decision to reduce the pace of purchases reflects a weakening of our commitment concerning the path of the funds rate. A number of people have suggested, though, not making any change in this paragraph today, and leaving it entirely alone is something I could also support. It could be powerful if we were, for example, to make this change in the context of a decision to reduce the pace of our purchases.

Let me now turn to the questions. In my view, the contingent path for our purchase program that the Chairman laid out has been very helpful in providing greater clarity about our intentions, despite some bumpiness in the market's reaction. I continue to fully endorse the strategy for our asset purchases laid out in that plan. And in terms of if we execute it, on the issue of Treasuries versus MBS, my inclination would be to cut them in tandem. I see the market reaction following the Chairman's press conference as less a reflection of any large shift in modal expectations concerning the path of purchases and more a reflection of increased uncertainty about our policy preferences and the kind of market dynamics discussed in the interest rate memo and by Governor Stein. I believe that markets were surprised that we chose to lay out a plan to taper asset purchases at a time when there were signs of softer economic growth and when inflation had arguably moved to an exceptionally low level. This somewhat puzzling timing, coupled with a forecast that struck many as optimistic, may have led markets to wonder if they really understood the FOMC's intentions. And in my view, the right way to counteract such uncertainty is to continue our efforts to communicate as clearly and explicitly as possible. So, all else being equal, I consider it desirable to adapt the statement so as to confirm and support this communications shift.

That brings me to the Chairman's second question. Indicating the Committee's formal endorsement of the Chairman's conditional plan also seems desirable from a governance perspective. I did notice that, at the press conference—lo and behold—the very first question you got concerned governance. So my preference is to try to include something concerning the plan in the statement, but I struggle to devise a tractable formulation and, frankly, can't come up with anything better than the new language that's in A(4). On balance, my preference for today is to simply go with B(4) rather than A(4). As others have argued, first of all, most of the dealers

aren't expecting any change in this paragraph, and they are expecting that September is definitely on the table as a possible date at which we would move. I think it is sufficient to lay out in the minutes—I believe President Plosser suggested this as an alternative—that the Committee will be clearly on record as endorsing the plan. The problems I have with A(4) are twofold. First of all, while A(4) in some sense affirms the essence of what the Chairman said, it isn't an exact repetition, and I worry that market participants would immediately start looking for daylight between the two, drawing unfounded conclusions from any perceived differences. There's also the more fundamental question of how we would update such language going forward as conditions change. The Chairman's press statement, to my mind, was essentially a consensus forecast of the Committee, and I thought it was definitely encouraging that last time, on an occasion when the markets were simply demanding such clarification, we were actually able, under the Chairman's leadership, to provide meaningful guidance. But I still recall the rather sobering end to our consensus forecast experiment last fall, when we found ourselves simply unable to agree on the conditioning policy path. So I do think it could be helpful to include language like A(4), particularly when we reduce the pace of purchases and it would be useful to provide some more guidance about our intentions. But before we mess around with that language, I really think we need to think through the consequences and make sure that we know how to revise it going forward, not only if conditions evolve as we expect, but also, as importantly, if conditions evolve in a completely unanticipated manner. So my response to the second question is, for now, I don't see a constructive way to include more about the contingent plan in the statement, and I support the unchanged language in B(4).

Finally, on the third question, regarding possible changes to the forward guidance, I don't favor making changes today. I would want to avoid any alterations that might work to increase

uncertainty or confusion about our reaction function or raise any questions about our commitment that the threshold language entails about our intention to, in essence, hold the funds rate lower for longer. That's a message I think markets appear to understand, and I want to keep it that way. So I'd be reluctant to change the actual thresholds. But, as many of you have indicated your support for potentially making changes that would clarify the guidance, particularly after a threshold is breached, are there conditions at which we would continue to hold the funds rate at zero after a threshold is breached? Or could we provide some guidance pertaining to the pace of purchases? Or, as President Plosser indicated, what would our reaction function be at this point? I think these are very constructive ways to move forward to think about whether or not we could strengthen the forward guidance in that way, and I'm very open to that.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I was tempted to follow the lead of Don Kohn and simply state that, for the 41st time, I support alternative B. [Laughter] But you gave me an opening to talk about communications strategy and what I think this Committee should do after I'm no longer here to vote, so I'm going to take that. Starting with the language that is in B, I had all of the same comments about paragraph 2 that President Williams already made, but I like A(2), and I think that may be a better alternative. I also had the same thoughts about "foreseeable future," but I'm not going to deliver any postmortem blows to that phrase. I think the clarification in 5'—that the term "highly accommodative stance of monetary policy" refers to continued low rates and maintaining the size of the balance sheet—is important. In some of the coverage of the Chairman's comments in his various intermeeting statements, every time he said "an ongoing need for highly accommodative policies," they would assume that that was walking

back the expectation to reduce asset purchases rather than referring to what was going to happen with short-term rates.

In terms of the questions, I want to start by saying clearly, for the minutes, that I fully support the strategy you outlined in the press conference. And I think markets heard pretty clearly the message about asset purchases, but some seemed to miss the distinction between asset purchases and the threshold for short-term rates. So it's appropriate that we do change paragraph 5, rather than paragraphs 3 and 4, to reemphasize the message that, even when we start reducing asset purchases, that doesn't pull forward the liftoff of the fed funds rate.

In response to the questions about paragraphs 3 and 4 and forward guidance, I want to caution against the temptation to oversteer communication, especially with the first reduction in purchases. I was really worried when I read the language of 4' in the first policy drafts that were circulated for this meeting, and I see that the language is still in alternative C, which presumably functions as a staging ground for the time when it is appropriate to reduce the pace of purchases. I think it tries to set out too many conditions for the ultimate stopping of purchases, which, at that point, may be at very low levels. Even if you don't share my concerns about the cost of a very large balance sheet, I think you can agree that stopping or substantially slowing purchases before we can declare victory could be very damaging to our credibility, and that credibility is key to the effectiveness of forward guidance. So I wouldn't set out so many hurdles to clear all at the same time. Save the triple toe loop for the conditions necessary to start tightening policy.

Along the same lines, even if you do hit 7 percent as expected, I think it would be very difficult to communicate that a 7 percent unemployment rate in paragraph 4 is a stopping rule, while the 6½ percent unemployment rate in the next paragraph is a threshold. If you stop purchases when you get to 7 percent, why wouldn't markets then expect that you'd begin raising

rates when you get to 6½ percent? So I would urge that you consider leaving 7 percent as a soft target in the Chairman's remarks and something to talk about, but that you not convert it to a hard target that's contractualized in the statement. I think there's a real opportunity, as I've said before, to rehearse your approach to ultimately raising short-term rates in your approach to adjusting the pace of purchases, and I would urge you to leave yourselves the option to make adjustments in small enough increments that their value is largely through their signaling and to demonstrate that you can move quite slowly and deliberately and in a data-contingent way.

I also hope that you'll save the option to reduce the 6½ percent threshold for one of two conditions where it might be needed—either (1) as a way to compensate if you're stopping purchases in response to cost concerns rather than because they're no longer necessary or (2) as a way to push back on expectations for higher rates if, as you get closer to the threshold, market expectations for higher rates start to build before you're actually ready to pull the trigger. I firmly believe that this time, stronger economic growth is just over the horizon, but we haven't actually seen it yet. And as badly as I want to see this Committee take the first step, I hope you won't take too many steps until you're certain that there won't be any required backtracking.

Someone said yesterday that it appears that the surveys show that we're very good at communicating with former Fed staff [laughter]. Soon I'm going to find out how good you are at communicating with former Fed Governors. In any case, know that I will be watching and pulling for you and our economy every step of the way. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you for that final summing up. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. I think it might be useful, in providing some perspective on the decisions we will make today and then in September, to go back a bit and to acknowledge the communication problem we had going into June. The communication

problem was substantially more profound than has been acknowledged implicitly in some of the comments that have already been made. I think the fundamental problem was that in September, we had reached agreement on language that was not backed by a consensus of the members of the Committee who voted for it as to what policies they actually wanted, and those tensions have been sometimes under the surface, sometimes above the surface, ever since. So at some point, there was going to need to be an adjustment of market expectations to what the reality of the center of gravity in the Committee was. There were various views as to how and when to begin that communication, and there's no need to rehearse the various possibilities that were available to us a few months ago. We chose one route, and the Chairman was then given the really difficult task of providing a coherent, economically grounded view of a more or less collective position that had to, in fact, reflect that center of gravity that involved lots of different interests. And I think, as I and others had anticipated last time, there was going to be turbulence. This is the Boston–Washington shuttle again in the summer. There was going to be turbulence, but it wasn't like flying over the Rockies when you hit an air pocket. It was more like the normal fly through a few storms. On balance, he certainly handled it extraordinarily well, and, on balance, I think we ended up in about as good a position as we could have reasonably expected given that there was that gap that was going to have to be filled at some point. I, like many—I'm sure all—of you, have heard from a lot of people in markets, and the guys who lost a bunch of money were sort of unhappy. Most other people said, “Yes—look, it was rocky, but it was going to be rocky, and you actually”—“you” meaning the Fed—“are in a better place than you were before.”

Now the question is, where do we go from here? And, like many others of you, I want to endorse Jay's articulation of this as now an execution strategy—how most adroitly to execute a working, and I emphasize “working,” consensus that we've reached and that the Chairman has

elaborated in his various public appearances. So, first, with respect to question 1, yes, I absolutely endorse the approach that the Chairman has been taking publicly. In terms of what to say about LSAP purchases tapering and termination, we basically have three choices. One is trying to distill what the Chairman has already said into language that would go in the statement. Two is trying to give a very brief summary of the two key points, which I would characterize as, LSAP purchase tapering and termination are data dependent, and the federal funds rate decision is separate from the LSAP decision. Or three, for this statement—for this meeting, at least—doing nothing. On balance, for many of the reasons Janet has already stated, I favor three. And I underscore what Janet said—that once you start picking out some of the things that the Chairman has said, it becomes really difficult to gauge whether we’ve picked out just the right ones that are going to lead to a neutral reaction, with everybody saying, “Oh, yes, that’s exactly what he said.” I actually would be fine with a statement that said, “We endorse what the Chairman said,” but I have a feeling that that’s not FOMC practice.

With respect to the second option, if there had been a really strong consensus, which I don’t hear today, for doing something and saying something, I guess I would have been okay with a very brief statement that LSAP purchases are data dependent—and Richard, actually, I think, picked out a sentence from one of the other alternatives that would have done that—and underscoring that the federal funds rate decision is separate from the LSAP decision. But I don’t think—and again, echoing a lot of what Janet said—we need to do that for now. First, the minutes will reflect this discussion, which is important. Second, while Jim made some very good points about the weirdness that arises from the fact that we have press conferences only in every alternate meeting, we can take advantage of that right now because the world isn’t expecting much precisely because we’re not having a press conference. So silence is probably

going to be more interpreted as, “Yeah, it’s all okay.” And, third, we’re going to have to say something in September, which I think is the key point. If we decide to taper in September, we’re going to have to explain the tapering; if we decide not to taper in September, we’re going to have to explain the nontapering. We’re going to come to a point in a concrete situation in which we’re going to have to articulate why we’re making this decision.

I think Janet made all of the other points I wanted to make. So let me just go to the forward-guidance question. I was with Narayana in favoring 6 percent originally, but I don’t actually favor moving to it now. I think that, for the reasons I stated a moment ago, some sense of a collective position of consistency—of execution, in Jay’s terms—is very important right now. And so I would reserve a change in the terms of the forward guidance for a moment when we regard it as imperative to take a pretty significant policy step. I would also say, as we think about that, I hope we get an analysis that is more than just model-driven. That is, if I have to make an assessment based on the assumptions that economic agents are forward-looking and financial market participants are assumed to have rational expectations, in the wake of the June press conference, I have difficulty actually applying those assumptions in thinking about what our communications might do. So I think we need a somewhat richer assessment. The idea—from Narayana, Charlie Plosser, and Janet—of trying to build out what we will do after hitting a threshold is a very productive line of inquiry. We’re not there yet, I don’t think, as to what we might say, and I would regard this as consolidating and, I hope, extending the progress the Chairman has made in the press conference, the monetary policy testimony, and the NBER appearance.

Finally, on language—I share Jim’s and Charlie Evans’s and other people’s concerns that we not express, in Jim’s terms, complacency about the risks of continued lower inflation levels,

but I understand why John and Betsy and others were uncomfortable with the particular language that's in there. And so I look for the Solomonic solution here that will balance both. Thank you, Mr. Chairman. Oh, I'm sorry—paragraph 5. I go back and forth on that one. I actually think both Eric and Betsy made very good points, but they're on opposite sides of the question as to whether the best thing to do right now is, on the one hand, to minimize change or, on the other hand, underscore in more-general terms that, here's what we've done and here's what we're still doing. So this is another one, Mr. Chairman, where you've got my proxy.

CHAIRMAN BERNANKE. A Solomonic solution is to cut the sentences in half.

[Laughter] Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. I wasn't inclined, heading into this meeting, to think that there was much, by way of benefit, that had come from the attempts to communicate in advance the contingent plan. I was solidly in the "don't communicate anything ever again" camp. [Laughter] Unlike Governor Powell—who undeniably faced a kinder set of market participants, whom he queried after the press conference—I received variations of a much harsher and rougher message from the markets people I called. This message was a variation on the theme of, "Please, please, for the love of God, do not attempt to communicate again." I guess I was talking to the market participants who lost money. Anyway, my sense after these calls was to just do it and spare the markets the upfront, long, drawn-out, confusing explanation. In other words, I was told that there's nothing to gain by communicating the withdrawal of stimulus, so just decide on your own when you want to do it and then just do it. Upon reflection, I thought, it comes down to this. There are two kinds of people in this world: the people who rip off the Band-Aid fast and the people who want an assessment of the underlying wound's progress before they peel it off, on its corners, slowly. [Laughter] After the June press

conference, I thought I was firmly in the “don’t communicate” camp. Just take off the Band-Aid when you know you’re ready, and I don’t want any more information about how far along the underlying wound has healed. If you like to peel it away at its edges and have the nurse explain to you what parts are being peeled off, and ask you to guess what the underlying wound looks like and whether it has sufficiently healed, then be my guest.

But, listening carefully to all of you, I think this is what the upfront communication of the contingent plan did for us. I’m convinced we were able to shake out some market excesses and complacency. That’s all to the good. We’ve also made it clear that we would like to limit the size of our purchases going forward. That’s also not bad, although we have reduced our ability to see what benefits could accrue from a purchase plan that is truly open ended. And we’ve moved the program into being one that is more data dependent, although we haven’t said yet what data we’re looking for to stop the purchases, and less date dependent, although we did throw in some confusing possible dates as to when a 7 percent unemployment level could be reached. We also got a chance to peer at the condition of the underlying wound. In short, the effect on financial markets has been that 10-year Treasury rates have risen about 40 basis points since the June Tealbook and more than double that since April. I hope others here are right about the real effects of such a rate increase of this size not being significant. Indeed, the markets that respond most quickly to rate increases, like mortgage refinancing, have turned down significantly. Still, most decisionmakers in the real economy don’t make big decisions very quickly, and the real impact of the rate increases is likely pretty minimal so far.

While some of this backup in rates likely represents market participants’ perceptions of a better outlook, it also represents some other forces—in particular, our own signaling and communication efforts. Communicating about things that we’re likely to be wrong about, like

our forecasts and projected policy prescriptions that are the fruit of those forecasts, unhelpfully jerks markets around in a way that may have nontrivial effects. I do think that, despite our best efforts, we managed to confuse markets about our plans and the degree to which they are conditional on the state of the economy, and this did contribute somewhat to higher rates. With that experience still fresh, and the real possibility that we could make the same mistake again, we need to chill. Everything that has been said to date—including about our ability to provide continued support, even beyond the point of necessity—could be restated.

How to proceed? The literature on transparency suggests that the major gains come from the public better understanding our interpretation of the economy, our long-run goals, and how we plan to reach them. Our goals statement, which we reiterated in January, goes in the right direction on this front. So does our threshold-based fed funds policy and our statement language about the conditional nature of our LSAP program. There's probably less value in providing precise timing guidance that is based, though, on noisy forecasts. Where we misstepped was in giving dates on LSAP tapering and ending, which markets were unable to believe were conditional. Although we thought of these as an example of how a conditional decision might evolve, markets thought it was a return to date-based guidance. So, inadvertently, we moved in the wrong direction on communication. As a result, there's a chance that we created a risk that the economy will underperform our projections and a risk that reducing purchases would have to be delayed. By making transparent how badly we want to reduce asset purchases, we have helped ensure that they will stick around longer. If we want to wean the economy from the need for continued support through purchases—and this is what I would like—we should say that we're going to keep accommodation high until the economy is on stronger footing. This was

what, in essence, the Chairman and others had to do to reverse the backing up of rates after the meeting and press conference.

In terms of alternative B, I think that the optional inflation sentence is clunky because we always pay attention to inflation developments. And it's not clear what "appropriate policy accommodation" means in this context. But I do think it's worth noting that the risks of low inflation have increased somewhat, and the language in alternative A is helpful in that regard. Turning to paragraph 5, one good option for now is to keep it exactly as it was last month. We also could try to do the reaffirmation and underscoring that's attempted in paragraph 5'. Like Governor Duke, I think that the underscoring of what constitutes a highly accommodative stance—in other words, maintaining very low short-term interest rates and a substantially large balance sheet—could be truly clarifying. I—like others—wouldn't recommend 5's addition of "foreseeable future," because, while it might align with what the Chairman said in the NBER remarks, it is murky and will raise new questions. If we could do it carefully, without the markets interposing a date, I think we could attempt the language that the unusual alliance of Presidents Lacker, Fisher, Kocherlakota, and Rosengren has suggested that establishes a stopping rule. I'm just not sure on the stopping rule, though. My sense is that the addition of such a rule now could, at this moment, be unsettling. I think it might be too soon to actually attempt this. Markets may still remember what the Chairman said at the press conference about such a stopping rule and conflate their views of what he said with what the statement says. And again, that might not be pretty.

Now, with this context provided, I'll turn to the three questions. First, I'm comfortable with the Chairman's general strategy of reducing asset purchases. Second, I'm fine with adding new language about a stopping rule as long as we interject it when markets will not be

misinterpreting it as date based or when they otherwise have enough precise information to know what indicators we'll be looking at. Third, if a reduction of purchases occurs for reasons having to do only with the strengthening of the economy, rather than for reasons of cost and efficacy, there should be no need for further accommodation through strengthening the forward guidance. Presumably, in such a situation, we can wait to use such forward-guidance tools, each of which poses its own communication challenges, until we see the need for further accommodation. But, in another scenario, and one that I think is more likely—and one noted by President Lockhart—I can imagine there being a partial picture of improvement that emerges and the Committee disagreeing over whether the strength of data justifies a reduction in purchases. Perhaps then, we dip our toe into the process and attempt a tiny start to reductions, holding firm, though, if improvements are not continuously forthcoming. If 7 percent unemployment arrives, we stop the purchases. And then, again, if improvement is not forthcoming, we gear up for some compensating accommodation through one of the forward-guidance tools. I would also remain open to the use of forward-guidance tools as a way of providing clarification rather than accommodation, the ideas advocated by President Kocherlakota. As usual, though, we'll need to work with care to assess that we are in fact reducing uncertainty with our forward rate communications in the context of all of our other simultaneous communications. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Stein.

MR. STEIN. Thank you, Mr. Chairman. I support alternative B. Let me start with a couple of comments on the language and then respond to the questions you posed.

First, on the language in alternative B, I'm basically okay with most of the statement, and people have raised all of the issues. "Foreseeable"—yeah. Given a choice between 5 and 5', I would take 5'. But I was a little bit swayed by some of the arguments for minimalism here. So

maybe a compromise would be to basically take old paragraph 5 but just put the word “reaffirmed” in there. I think the “reaffirmed” does some of the strengthening that one wants without really changing much of the paragraph, and maybe that’s a middle ground. So I’d go along with 5’ but lean a little bit toward a slightly more reduced version.

On the three questions you asked, yes, I’m fully comfortable with and supportive of the general strategy. On the second question, about guidance on the criteria for winding down asset purchases, my reaction was very similar to Janet’s. It seems like something you would want to do, but the execution is tricky, and I guess I’m a little nervous and would be afraid to do it before we actually start tapering. What worried me about the language that was previewed here was that it can read as a three-part test. We have unemployment, we have economic growth, and we have inflation. I feel as though we’re losing some of the simple appeal of trying to clarify and get away from just vague notions of substantial improvement by having a number. But if we have three things, then we’re back to looking for “substantial improvement”—it’s the consensus forecast problem that you alluded to. So I hold back on that.

With respect to changing the forward guidance on rates, my fairly strong preference would be not to change the unemployment threshold or, really, to make any other formulaic commitments at this point. I think there’s scope to better explain what our reaction function looks like, and I’d be comfortable doing that, but I would draw a sharp distinction between explaining what will be optimal at a point in time versus making things that are essentially hands-tying types of commitments. That’s a little logically distinct from the distinction that Narayana drew between pre- and post-liftoff guidance. I’m happy to do post-liftoff guidance as long as I really think of it as explaining what will be optimal to do when the time comes.

There are three arguments in support of this. First, as people have noted, there's a general notion of just staying the course, and what do your commitments mean if you can move them around? That doesn't seem all that appealing. Second, I think the last several weeks have made me increasingly nervous about writing strong, uncontingent puts to the market, recognizing the difficulty in extricating yourself from these promises once you've made them. We have some uncertainty. All of the simulations in the memo were based on an assumption about the natural rate, but there's a fair amount of variance about the natural rate. And it's within the realm of possibility that the natural rate is about 6.2. So if you promise you're going to keep going until 6, you might stall out, and then you're talking about having made a promise that could be a quite long-lasting promise in terms of keeping rates low. Again, I think that's just a commitment that's going to have a cost on the other side. Finally, with respect to inflation, as a conceptual matter, if what we're concerned about is low inflation, I just don't see that as a problem to which commitment is the answer. In other words, the whole Woodford logic was about how there's a tension between the two legs of our mandate, and we want to promise that we're going to keep going more on the output side even after we breach inflation; we have to commit because, ex post, we're going to feel sorry that we have high inflation. If we have low inflation, we've got no time-consistency problem. We should just keep going. So I think what the Chairman has done has been very effective, and it's exactly the right thing. It's an educational thing. Guys, that's optimal monetary policy when the time comes—if inflation is low, we're going to keep rates lower for longer. There is ample room for being clear on that without formulas or hands-tying. I would certainly like to go in that direction.

Finally, looking forward to September, I have a couple of brief observations. First, right now, the door seems clearly open, in terms of market expectations, for us to dial down the rate of

purchases, if you look at either the dealer or some of the other surveys. I think that's a good thing. Ideally, we'll still be in that position, and we'll walk through the door. At that point, it will be helpful to clarify that we remain data dependent from that point forward and to reemphasize that. Now, having said all of that, I anticipate that we'll have a pretty lively discussion about what to do in September. And the only thing I would say is that I hope, at some level, that discussion will be disciplined by the Powell doctrine. That is, we should really be thinking about what decision—whether it's to stay or to go—can be better thought of as executing our plan? In other words, here's an argument that I would find an unappealing come September: “Geez, I think we should really not cut back in September now, because we want to provide more accommodation.” Think about it, it's certainly the case that if we don't stop in September, it will be more accommodative. But ask yourself, where will that accommodation come from? In principle, it will come from the fact that we literally are buying more securities. But if you fix the endpoint, once you've tied the endpoint down at 7 percent, the incremental amount of securities that you'll buy by stopping in December versus September is on the order of about \$100 billion. So that gets you 4 or 5 basis points, maybe, on the 10-year. Of course, the real market reaction will be stronger, but then that's presumably because we will have communicated more information on our reaction function. That is to say, maybe if the conditions are right but we don't start dialing down in September, it must be because people think, “Oh, maybe the 7 percent endpoint is a little bit loose,” or because we, again, cross over and create information about what people think our forward guidance is. So this, I think, is a discipline. If we get a strong reaction function signaling effect, I would think of it as a bug rather than a feature. In other words, I thought signaling was a central part of why we did asset purchases in the first place. And if you're Mike Woodford, you believe it was, in some sense,

the whole thing. That was appropriate at the time, but now that we've claimed to have laid out all of these really detailed contingent plans on both sides, it's harder to then go back and say, "Well, we need to do some signaling." So I hope that whatever we do, be it stay or go, can be thought of as essentially the execution of a set of plans that we have laid out. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Powell.

MR. POWELL. Thank you, Mr. Chairman. I will support alternative B at today's meeting. I look forward to the opportunity to one day support a descendant of alternative C when the data justify doing so. As far as the statement language is concerned, I have two quick comments. First, with the hope of clarifying, but at the risk of some other result, I offer this at the end of paragraph 2. The last sentence would read as follows: "The Committee also anticipates that inflation will move back toward its 2 percent objective over the medium term, but recognizes the risks of persistent low inflation to economic performance." So it incorporates the language from A(2) that Governor Duke mentioned. I offer that as an alternative. As far as paragraph 5 is concerned, I have already signed off on 5'. I am fine with it, although I have to say that I, too, am taken by the logic of "Less is more," "Keep it simple, stupid," and all of those expressions. And I probably would have a modest preference for the existing 5. Having said that, I hereby tender my proxy on the statement.

Turning to your three questions, first, I am comfortable with the asset purchase strategy as articulated by the Chairman in the June press conference and as amplified in subsequent public statements. I think that reductions in purchases, when they come, should be pro rata in the absence of an overpowering reason to differentiate between MBS and Treasuries, which I do not currently observe. As far as including the new stopping rule in the statement is concerned, I

would start by pointing out that the operative section of the Chairman's press conference, in which he carefully articulated the new rule for reducing purchases and then ultimately stopping them, runs to one-half of a typed page here, not including my many marginal notes. And my growing body of data suggests that it will be very difficult to incorporate that into a couple of sentences in the statement. I do agree with Governor Tarullo—we're probably going to have to say something one way or the other in September. My view would be that we do no harm today and not attempt to incorporate it, but that we just understand that it's quite likely we'll have to say something one way or the other in September, and leave it at that.

On the third question, for the foreseeable future, I guess I see limited or no attraction in changing the thresholds, except in a few very unlikely cases. For example, if we saw strong evidence of a deterioration in the cost–benefit tradeoff or if we found ourselves in the middle of a really sharp, unwanted tightening cycle, then I think you put thresholds on the table. For reasons that others have articulated, I wouldn't do so now. We need to let this whole process—that of getting the path of asset purchases clarified going forward—really run its course for a while before we start messing around with thresholds. Yes, it's appropriate to clarify our existing objective function, but I think we should stay away from the other ideas that were in the staff memo—for now for reasons of confusion in the marketplace and, as others have mentioned for reasons of undermining our own commitment. Also, because of those two issues, you're not going to get anything for it. The whole idea is to get more accommodation out of it when and if you do it. If the very act of changing a threshold or changing the policy is unclear or not well understood, or if it really calls into question our commitment, then I think you don't get anything for it and I wouldn't do it. That concludes my remarks, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you. I'm very much in the minimalist camp. So I want to really talk about paragraph 2 and paragraph 5 because those are the things that we're debating. On the one hand, I do think that there is a little bit more risk from inflation being too low, but what I don't understand is, what's changed since the last meeting? We didn't recognize that risk at the last meeting. And have the risks increased from the last meeting? I would say probably not. David, do you have a view? Risks are about the same as they were at the last meeting? Or maybe they're less because the nonmarket factors have reverted back? We've had higher energy prices in the interim. So people are going to be a little bit surprised by highlighting that at this meeting when we didn't highlight it at the last meeting. I'm wondering what inference they're going to draw from that. What I guess I would want to throw out as a question or something for consideration is whether they might draw the inference from that that the dialing down of asset purchases in September is now less likely because we're concerned about inflation risks, whereas we weren't concerned about those risks at the last meeting. I'm pretty willing to go along with what the Committee decides on this, but I do think we want to be careful not to inadvertently alter the market expectations about tapering by how we change the language in paragraph 2. There's a real risk there that I just want to throw out, and I think we need to think about it. If we do this, do we make market expectations of tapering in September less likely? Then, if we taper in September—let's say the data support doing that—are we doing a zig and then a zag to monetary policy and creating unnecessary volatility that could be avoided by just sticking with what we had? Now, one thing you could do if you wanted to note that inflation has gotten your attention, without doing anything in paragraph 2, would be to say that “inflation continues to run below the Committee's longer-run objective” in paragraph 1—to underscore that you've noted it, it continues, and it's on your radar screen. Markets will note

that change, but it won't be such a big deal that you'll be altering expectations. That's the first thing I'd like to raise in terms of this alternative B.

The second thing is on paragraph 5', where there seems to be a debate between 5' and the old paragraph 5. I worry a little bit about 5', in the sense that it says that the "Committee today reaffirmed its view" that it's going to do all of these things. Is the market going to take that as a statement that you're saying that because you decided you're going to taper in September? So it's actually being taken as a stronger statement about September action because you're making all of these changes, which you really wouldn't need to make if you were actually going to keep market expectations about policy where they are. There's a risk that 5' as written will actually be interpreted as making September tapering more likely, because I think they'll say, "Gee, why are they reaffirming all of this stuff today, unless they might want to signal something?" So I guess that pushes me a little bit in the direction of, do no harm and go back to the original paragraph 5.

In response to the questions, shockingly, I'm very comfortable with what the Chairman did at the press conference. After all, we gave him our proxy, and so it would be a little weird for us to take that proxy away after the fact. In terms of conveying more in the statement—not now. I think that maybe when we actually dial down purchases for the first time, I can imagine changing the language to something similar to that in C(4) to explain what this means going forward? But there's no upside to changing the statement right now. With respect to changing the forward guidance on rates, I think that would be a very strange thing to do right now. On the one hand, we're potentially dialing back asset purchases, not because of efficacy and costs but because we're actually making progress toward our objectives. But then we're turning around and actually lowering our threshold. So, what is it? Are we trying to add accommodation? Are we trying to take accommodation away? I think doing it now would be really confusing to

people. It would basically undercut the asset purchase program by reinforcing the idea that we were reducing it because of efficacy and costs, not because we were actually being more optimistic about the outlook. In terms of changing the threshold in the future, I wouldn't completely rule it out, but I think you have to have a good reason for doing so. It's better just to keep reinforcing that it's a threshold, not a trigger, and it seems to me we've actually made some progress on that. I also think that we have a lot of moving parts in this program already. And so every time you make a change, boy, you'd better be really clear on what the benefit of making that change is relative to the cost of forcing the market to learn what that change means. I just don't see adding a lot more complexity in terms of changing thresholds or adding inflation floors; I don't see the benefits there as being worth the costs. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Thank you, all. One advantage of not having a press conference is that we have plenty of time to discuss these issues. I guess that's one definite advantage.

Let me try to summarize a few things. First, on the three questions, with the exception of President Bullard, who was concerned, understandably, about making the guidance if not actually noncontingent, at least apparently noncontingent, the great majority of the Committee is at least broadly comfortable with the asset purchase plan that has been laid out; so that's a good thing for us to clarify. On language relating to asset purchases, there were a few people who were ready to put A(4) in the statement today, but only a couple. There were a couple more who, in principle, would like to do something today but didn't necessarily agree with A(4). I believe the majority here does think it's important to work toward at least possible options for explaining the contingent plan for asset purchases, but I didn't get the sense that most participants wanted to

do that today. But I do think it's important—I'll come back to this in just a second—that we follow through on these suggestions.

Likewise with the rate guidance. I didn't hear a majority for doing that today, but there was a lot of interesting discussion—in particular, President Kocherlakota's idea that we could further clarify the reaction function after we get to a 6.5 percent unemployment, for example, and President Bullard's thought that we could do that by including further clarification about inflation and how that affects the reaction function. I think those are useful points. It was also suggested that changing the guidance is not something we should do lightly, but there would potentially be contingencies in which we might want to consider doing that; in particular, if, for cost reasons, we ended the asset purchase program earlier than otherwise, or if we did feel we had a need for additional accommodation that couldn't be provided in another way.

What I would suggest—and, of course, the staff and I and others will review these comments—is that, over the intermeeting period, we should be working, on a contingent basis, on language of both types. In particular, on asset purchases, we should be thinking about both the contingency in which we do reduce purchases in September and the contingency in which we don't. Under both of those contingencies, we should be asking the question, would there be useful language that we could put in that would both clarify why we took the decision we took and give further guidance about what would determine future action? That's something, perhaps—and I say this without having consulted with the staff—on which we could also get some input from research directors as we think about that. Likewise with the rate guidance, I think we've gotten some good clarification about what the Committee thinks is the most productive direction here, and it's not going to hurt us to be working on some language and having that available. And then we can, of course, always decide whether to use it or not.

In terms of today's action, I'm grateful to Governor Duke for endorsing alternative B yet again. [Laughter] I think, as Governor Raskin put it, that the consensus was to chill and to do minimal language changes at this meeting. However, there are some issues that I don't think were completely resolved in the go-round, and so we need to tackle those now.

If we can take a look at alternative B, I think virtually nobody made a comment about B(1).

MR. FISHER. Vice Chairman Dudley did. He made what I thought was a good comment about B(1).

CHAIRMAN BERNANKE. What was your comment about B(1)?

VICE CHAIRMAN DUDLEY. Well, I said that if you decided not to put the language on inflation in paragraph 2, you could decide to put the "continues to" language in paragraph 1.

MR. FISHER. Yes, I like that.

VICE CHAIRMAN DUDLEY. That was only conditional on the decision on paragraph 2.

CHAIRMAN BERNANKE. I thought the "continues" language is in paragraph 2.

VICE CHAIRMAN DUDLEY. No.

MS. YELLEN. Here, "Inflation continues to run."

CHAIRMAN BERNANKE. "Inflation continues to run"—oh, I see. Okay. I didn't appreciate that. All right. Well, we'll come back to the inflation question in just a second. But, looking at other issues, we could probably live with going back to "moderate pace." But given that the first half was more or less on expectation, although not by quarter by quarter, are people comfortable with the language that refers to "modest pace during the first half of the year"? It's

not a particularly downbeat thing overall, because, of course, we also combine that in paragraph 2 with the expectation that it picks up from its recent pace. Any objection?

MR. LACKER. Mr. Chairman?

CHAIRMAN BERNANKE. Yes. President Lacker.

MR. LACKER. “Proceed at a moderate pace” seems consistent with saying that economic growth is going to be as it’s been. “Pick up” seems to me like a strengthening in the portrayal of the outlook. Is that your interpretation?

CHAIRMAN BERNANKE. Yes. But this is in conjunction with the statement that we have a modest pace in the first half of the year—so, picking up from its recent pace. I think most people would agree that 1.4 percent is not the second-half mode.

Okay. We have this modified language on housing. We take note of mortgage rates having risen somewhat. We responded to President Fisher’s concerns about financial conditions having tightened somewhat and narrowed the concern. So this will signal a bit of concern about the intermeeting changes. I think that’s what I heard yesterday.

Now, this takes us to the inflation language. As I said, most people are happy, more or less, with market expectations and don’t want to risk changing those too much. But I do think there was a bit of concern that we were too complacent about inflation. I believe that it is in fact the case that, if, for example, inflation were to actually move downward over the next two months, that would affect our thinking about September and about accommodation. So my own preference would be to do something there if we can. In part, I’m also trying to respond to President Bullard, who was very concerned about that at the last meeting. Vice Chairman.

VICE CHAIRMAN DUDLEY. One thing we could do that would be very mild is to say “anticipates that inflation will move back toward 2.”

CHAIRMAN BERNANKE. But that seems to be complacent. We're saying it's going to be fine.

VICE CHAIRMAN DUDLEY. "And will continue to pay close attention to inflation." Don't use the "but."

MR. TARULLO. People objected to including that last clause, though. People were worried that it would be difficult to get it out once you put it in. I think that was a concern some people had.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. I actually thought Vice Chairman Dudley made a sensible suggestion. I think if you make that adjustment to the first paragraph, it's a bit of a change in tone. It notices that "inflation continues to run below," and then I don't think you have to work very hard and put in that new language in paragraph 2. So that's one point. Before we get to that, though, why do we keep saying "since the fall"?

CHAIRMAN BERNANKE. On the risks?

MR. EVANS. Where are you?

MR. FISHER. It says that "downside risks to the outlook for the economy and the labor market" have diminished "since the fall."

CHAIRMAN BERNANKE. Because we're thinking that the asset purchase program started in the fall.

MR. FISHER. So that's the reason.

CHAIRMAN BERNANKE. That's the reason.

MR. FISHER. I wonder if people remember that. It seems we should use it in every statement. Are we going to say that this fall?

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. On the inflation risk, this is the way that I think about it. I don't think it's right to take the June statement as the status quo. In April, we added that sentence that indicated we might move in either direction on asset purchases, and the markets were attracted to the idea that low inflation might lead us to increase asset purchases. So what we did was a little bit more of a surprise. After the June statement, one of the things that you did very well at the NBER Summer Institute was that you gave a lot more voice to the risks of low inflation. My friend Jim Bullard was sitting in the front row. You talked about that effusively enough that I think the status quo should be thought of as your commentary there. And if that could be added to the statement, however so slightly, there'd be a benefit. I'm not saying we should make a lot of changes, because you're right—we don't want them to all of a sudden think that's going to be a reason to move.

CHAIRMAN BERNANKE. All right. Let me put out two suggestions here. Oh—President Bullard. Sorry.

MR. BULLARD. Could we consider Governor Powell's suggestion?

CHAIRMAN BERNANKE. I was about to say that Governor Powell can help me. You had, "The Committee—

MS. YELLEN. "Recognizes the risks."

CHAIRMAN BERNANKE. Yes. "The Committee also anticipates that, with appropriate policy accommodation"—or not?

MS. YELLEN. No—without.

CHAIRMAN BERNANKE. No. “The Committee also anticipates that inflation will move back toward its 2 percent objective over the medium term, but it recognizes the risks of very low inflation to economic performance.”

MR. POWELL. Here it is: comma, “but recognizes the risks of persistent low inflation to economic performance.”

VICE CHAIRMAN DUDLEY. But what’s “low inflation”? Is “low inflation” 2?.

CHAIRMAN BERNANKE. In paragraph A(2), we have, “recognizes that the persistence of very low inflation.” Low inflation—

MR. BULLARD. Very low—yes.

MR. FISHER. But are we sending a signal that we expect continued very low inflation, or does that put us in a corner?

MR. EVANS. “Recognizes the risk.”

MR. BULLARD. No, it says it goes back over the medium term.

CHAIRMAN BERNANKE. All it’s saying is that we think we’re going to get back to 2 percent, but we just want people to know that we’re aware that very low inflation is not a good thing.

MR. LACKER. I thought inflation was part of our mandate. This makes it seem as though we care about it because of its effect on something else. I’m not quite sure how it lines up with our mandate.

CHAIRMAN BERNANKE. I said “economic performance.” Presumably, that includes things like—

MR. LACKER. Our welfare function—a broader welfare function.

CHAIRMAN BERNANKE. A broader welfare function.

MR. LACKER. Not economic growth.

CHAIRMAN BERNANKE. I didn't say "growth." I said "economic performance."

MR. LACKER. Yes, I know.

CHAIRMAN BERNANKE. That's the idea."

MR. LACKER. Yes, but it makes it look like an intermediate objective for us rather than part of our mandate.

CHAIRMAN BERNANKE. But, ultimately, it is an intermediate objective. And why do we care about inflation, except that it affects the costs? The reason we have a 2 percent inflation objective, I think, is that we also care about employment. If it was not for that, we would probably go to zero. Vice Chairman.

VICE CHAIRMAN DUDLEY. Why not say "and recognizes the potential dangers of inflation persistently below our 2 percent objective"? Because I'm a little worried about saying "low inflation."

CHAIRMAN BERNANKE. Okay. "Recognizes that inflation persistently below our 2 percent objective could pose risks to economic performance"—something like that?

VICE CHAIRMAN DUDLEY. Yes, something like that.

CHAIRMAN BERNANKE. Governor.

MS. DUKE. The thing I like about A(2) is that we recognize the risk first, and then we reassert that we expect it to move back toward the 2 percent.

CHAIRMAN BERNANKE. You want the risks noted first.

MS. DUKE. I like the risks noted first. It takes the edge off a little bit.

CHAIRMAN BERNANKE. Okay. "The Committee recognizes that inflation that is persistently below its 2 percent objective . . ."

MS. DUKE. Just as it is in A(2).

CHAIRMAN BERNANKE. Well, I was just trying to make that one change that the Vice Chairman suggested—“The Committee recognizes that inflation that is persistently below its 2 percent objective could pose risks to economic performance, but it anticipates . . .” Get rid of “appropriate policy accommodation.”

MR. FISHER. Yes. That would be good.

CHAIRMAN BERNANKE. Is that going to be all right for people?

VICE CHAIRMAN DUDLEY. Yes, I think that’s good.

CHAIRMAN BERNANKE. Is that all right, President Lacker?

VICE CHAIRMAN DUDLEY. You’re flagging it as a potential risk as opposed to a current one.

CHAIRMAN BERNANKE. All right. I’m going to read this again—just to make sure everybody has it straight. So, going off of alternative A, “The Committee recognizes that inflation persistently below its 2 percent objective could pose risks to economic performance, but it anticipates that inflation will move up to its 2 percent objective over the medium term.” Okay? Good. Glad we were able to resolve that. Okay. Yes—Governor.

MR. TARULLO. Having delegated to you the Solomonic judgment, which you’ve just made—

MR. EVANS. No, you can’t withdraw it. [Laughter]

MR. TARULLO. —I don’t mean to question it, but I do want to ask one question. If people get questions as to why we inserted that, what’s the answer?

VICE CHAIRMAN DUDLEY. That’s the question I was raising.

CHAIRMAN BERNANKE. The answer is that we think very low inflation is a concern, and we're going to pay attention to that, but we do think that it will go back to 2 percent. That's our forecast.

MR. FISHER. And we note that it is running below our objective.

MR. EVANS. It's consistent with your comments at the NBER.

MR. TARULLO. Yes, I just want to make sure everybody agrees on this.

CHAIRMAN BERNANKE. It's a question of a utility function rather than our forecast. That is, we think very low inflation is a bad thing. But we don't expect it.

VICE CHAIRMAN DUDLEY. You're raising a question of, why this meeting as opposed to the last one?

MR. TARULLO. Yes.

VICE CHAIRMAN DUDLEY. And I think the answer would be, well, it continues to run below our objective, and the longer it's below our objective, the more concerned we get.

CHAIRMAN BERNANKE. I would note that we're making two changes.

MR. EVANS. But after the statement, the Chairman felt compelled to add additional color at the NBER. That was important. Things settled down after that.

MR. KOCHERLAKOTA. It's because there was market commentary after that.

MR. LACKER. This will reaffirm the Chairman.

CHAIRMAN BERNANKE. I'd note that we're making two changes here. One of them is acknowledging the risks of very low inflation. The other is changing the statement "anticipates that inflation likely will run at or below" to a statement that says we think it's going to go back to 2.

MR. FISHER. I think it's important.

MR. EVANS. This is a good context for changing the words, in my opinion.

CHAIRMAN BERNANKE. Bill.

MR. ENGLISH. Sorry. I just wanted to point out that, in the words you just read out, you have “its 2 percent objective” twice in the same sentence, very close together.

CHAIRMAN BERNANKE. Okay. Let’s see. “Inflation”—I see.

MS. DANKER. Just drop the second “2 percent”?

MR. ENGLISH. Yes.

CHAIRMAN BERNANKE. Read the sentence without the “2 percent.”

MS. DANKER. “The Committee recognizes that inflation persistently below its 2 percent objective could pose risks to economic performance, but it anticipates that inflation will move up to its objective over the medium term.”

MR. ENGLISH. “Move back toward its objective.”

MS. DANKER. Oh—“move back toward.” I’m sorry.

MR. FISHER. That follows “since the fall.”

VICE CHAIRMAN DUDLEY. “Back toward,” though? Does that mean it ever gets there?

CHAIRMAN BERNANKE. With a period. We don’t have the part about “possibly slightly higher.”

Okay. The last thing, I think, that we have to discuss is 5’ versus the status quo. So the “foreseeable future” paragraph—we’re not going to discuss that for the foreseeable future.

[Laughter] All right. The argument for this is, first, as Governor Duke noted, to point out that “accommodative stance of monetary policy”—in this paragraph, at least—is referring to stuff other than the asset purchases; it’s referring to the rate policy and ongoing holdings. And the

second purpose of it, the one that I particularly was focused on, is that by emphasizing that, in the long run, that is our source of accommodation, we're trying to stress the point that we did a lot of work communicating over the intermeeting period—that the end of the asset purchase program does not mean the proximate increase in rates. If it would help at all, certainly a simple thing that the Vice Chairman suggested would be just to get rid of the “today reaffirmed its view.” Just change that back to “expects.” That would reduce a little bit of emphasis. President Kocherlakota.

MR. KOCHERLAKOTA. I'll just speak on this point, Mr. Chairman. Thank you. I like the Vice Chairman's suggestion. I like the language that's in 5', but I can certainly see the argument that it's best kept in store for the point at which we actually taper. I think it would be very powerful to put it in there at that point. So, right now, just have “today reaffirmed its view” and then include the other language in that sentence at the point at which the actual reduction of the purchases takes place.

VICE CHAIRMAN DUDLEY. So you would just say, “The Committee today reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate”?

MR. KOCHERLAKOTA. That's correct. At this moment—yes.

MR. STEIN. You could literally just take old paragraph 5 and where it says, “The Committee expects,” say, “The Committee reaffirmed that.”

CHAIRMAN BERNANKE. So the old paragraph 5, just for reference—isn't the sequence a little different?

MR. ENGLISH. Yes.

CHAIRMAN BERNANKE. Okay. So it would be old paragraph 5, under “June FOMC Statement,” on page 2? You’re supporting “support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate”? Is that what you’re proposing?

MR. STEIN. Yes, that’s my proposal.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Could I offer the following speculation? I’m relatively indifferent, and paragraph 5 would be okay. But if you’re of the opinion that adding the inflation risks language in paragraph 2 might make people reconsider whether we are going to actually reduce purchase flow in September, and if you thought that was unhelpful, I think the language in 5’ about, “ongoing, substantial Federal Reserve holdings of longer-term securities” might help offset. They will recognize that you’ve made this argument before, saying, “Even once we start reducing the flow, we’re still going to be quite accommodative.” And it really sounds as though you’re just reaffirming arguments you made before when we were going to cut the flow rate in September, so it might help there.

CHAIRMAN BERNANKE. Yes, that did occur to me.

MR. EVANS. Although I’m indifferent myself.

CHAIRMAN BERNANKE. All right. Can I have some views here? Governor Yellen.

MS. YELLEN. I think President Evans has made a good case, if you are worried about the inflation thing, then emphasizing the substantial holdings basically says, don’t focus on the pace—even if we reduce the pace a little bit, it’s still very accommodative.

VICE CHAIRMAN DUDLEY. But I think it will potentially reinforce the idea that you're planning to go in September. It's hard to know how the market will take it, but they'll wonder why you changed it.

MS. YELLEN. So there's an argument for just no change, too.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. I was going to say, I'm a little bit indifferent here, too, but whether they're going to make the link between what we say in paragraph 2 and what we say in paragraph 5, that somehow those are related, I'm not sure I would put a lot on that.

CHAIRMAN BERNANKE. There's not much of a logical link, but there's a little bit of offsetting dovishness and hawkishness. I think there is some truth to that. Well, okay. Do you want to have a straw vote on two options? Do you want to do it that way?

VICE CHAIRMAN DUDLEY. Yes. Why don't we do that?

CHAIRMAN BERNANKE. All right. Option 1 is 5', and, to tone it down a little bit, we'll just make it, "The Committee expects that a highly accommodative stance," and get rid of the "today reaffirmed its view." Okay? Does that help?

MS. DUKE. And keeping "very low short-term interest rates and ongoing, substantial . . . holdings of longer-term securities"?

CHAIRMAN BERNANKE. Keep everything else in that 5'.

MS. RASKIN. Also "continues to anticipate."?

CHAIRMAN BERNANKE. Yes, everything—except for the "today reaffirmed its view." All right. So that's one option. And the other option is paragraph 5, under "June FOMC Statement," on page 2. Do the supporters of that want to put in the "reaffirmed" part or not?

MR. FISHER. Yes.

CHAIRMAN BERNANKE. Yes? All right. I'm just trying to be democratic here—Solomonic. So 5 would be, “To support continued progress . . . , the Committee today reaffirmed its view that a highly accommodative stance of monetary policy,” et cetera, as written in June. Okay? All right. I'm going to ask first for the June variant, and then I'm going to ask for the 5' variant, okay? All in favor of the June variant with the “reaffirmed”? [Show of hands] Okay, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11. I think that's a majority. Okay. So we're going to go back to June, and we're just going to reaffirm June. “The Committee today reaffirmed.”

President Williams.

MR. WILLIAMS. Yes. Mr. Chairman, because I heard some back-and-forth, I want to make sure that, on paragraph 2, the language we're intending says that “inflation will move up to its 2 percent objective.”

MR. ENGLISH. “Back toward.”

MR. WILLIAMS. “Back toward.” Okay. I wasn't sure. So it's the language from B.

CHAIRMAN BERNANKE. All right. Let's make sure we get this all straight.

MR. PLOSSER. Somebody read the inflation language again.

MS. DANKER. Okay. I'm going to read what I have, so if somebody would correct me, that would be great. “The Committee recognizes that inflation persistently below its 2 percent objective could pose risks to economic performance, but it anticipates that inflation will move back toward its objective over the medium term.”

CHAIRMAN BERNANKE. Okay? Any other comments or questions? [No response] If not, do you think you can read the whole thing, Debbie?

MS. DANKER. This vote is on alternative B and the associated directive, with changes from what's shown in the handout as follows. The final sentence of paragraph B(2), on inflation,

is, once again, what I just read. Rather than introduce another error, I should just say “what I just read.” And paragraph 5 is exactly as published in the June FOMC statement, except that the first sentence begins, “To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that,” and so forth, as published in June.

CHAIRMAN BERNANKE. Are we okay? Go ahead.

MS. DANKER.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
President Bullard	Yes
Governor Duke	Yes
President Evans	Yes
President George	No
Governor Powell	Yes
Governor Raskin	Yes
President Rosengren	Yes
Governor Stein	Yes
Governor Tarullo	Yes
Governor Yellen	Yes

CHAIRMAN BERNANKE. Okay. Thank you very much. We will have lunch upstairs to honor Governor Duke at 1:00 p.m. I will adjourn the meeting in a moment. For those who would like to stay around, Linda Robertson will provide us with a short update on congressional matters. Let me note that the next meeting will be Tuesday and Wednesday, September 17 and 18, 2013. Thank you, all. The meeting is adjourned.

END OF MEETING